

# Learning to Dialogue in Kindergarten A Case Study

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This text presents an experiment with 5-year-old Quebec kindergarten children who experienced the Philosophy for Children (P4C) approach for the first time. The experiment was short-term, lasting from mid-February to mid-May. Its objective was to study preschool-aged children's capacity to dialogue. The questions that oriented our research were: *When guided by an adequate philosophical approach, are 5-year-old kindergarten children able to dialogue (dia-logos) with their peers? Can they be critical? What is the teacher's role in the development of children's communicative actions?* Two types of analyses, stemming from a two-part theoretical framework, were used to answer these questions. The first part refers to Habermas' criteria, and the second to a typology of exchanges among peers proposed by Daniel and colleagues.

In the following sections, we first describe both parts of the theoretical framework on which our experiment was based. Then, after introducing the methodology, we present the results of our analysis and finally, our conclusions.

## 1. Habermas' Communicational Ethic

The communicative action theory (Habermas, 1973) posits an interesting paradigm for explaining social actions from the «communicational» process, in which language plays an important role. Habermas defines communicative action as the inter-comprehension effort realized by all the participants in a group of speakers. Each speaker attempts to render his assertions intelligible while showing a sincere interest toward the opinions of others, even if they differ from his own points of view.

Habermas makes a fundamental distinction between two types of action, *Strategic* and *Communicative*. In *strategic action*, the participants orient their actions toward success and winning something; all techniques and trickery are useful in the realization of a project, including using the others as a means. In *communicative action*, consensus is the purpose of the interplay between the participants. A strategic type of relationship presupposes that there is also a social interaction. As in a game of chess, each player modifies and adjusts his behaviours according to those of the opposing player, but winning is still the goal. We can extend this example to other relationships that punctuate our daily activities, and to interpersonal relationships of an institutional nature, such as legal, economic, political, etc. However, Habermas

is categorical in noting that «communicational» interactions explain the development of institutions in our modern societies. *Communicative action*, by orienting its finality toward mutual understanding, coordinates actions and action plans between partners. This quest for mutual understanding and consensus highlights the values that structure and establish the elements of a society with characteristics that are manifested both as a *system* and as a *life world*. We will not consider the theoretical aspect of «system» because it refers to social forms of an impersonal nature, such as the business world, and does not really impact our study on Philosophy for Children. However, the notion of *life world* is more closely related to our topic.

Following is an example proposed by Ferry (2003)<sup>1</sup>. A person asks another for a glass of water. Such a statement can give rise to three types of speech act: *objective*, *social* and *subjective*.

- Objective Area (constatatives): descriptions of reality and facts; linguistic forms are assertive. For example, the other person might answer, «But where does he see a source of water in this room?»
- Social Area (regulatives): norms legitimize interpersonal relationships. The person might say, «That's normal, since you are giving a conference.»
- Subjective Area (avowals): this is the opaque world of psychology and the speaker's intention. The person might think, for example, «Is he trying to humiliate me in front of the others?»

These three distinct forms of speech act interweave in any discussion situation, particularly when the group attempts to orient its actions toward mutual understanding and consensus. Questioning of this *life world* is therefore manifested when searching for the *best argument*. The *life world* then represents the evidences we share with others. As soon as the evidences start to become problematic, it is necessary to develop a discursive activity whose core is mutual understanding. The discussion develops through speech acts (illocutionary function), and each speaker attempts both to be understood and to understand the other's choices. *Communicative action*, in claiming validity, thus implies a rational criticism of each statement: proof, demonstration, refutation, acceptance... Acceptance of the best argument happens when the discussion has exhausted the critical elements uttered by the speakers and deems the proposed argument acceptable (*communicative rationality*). Habermas is not concerned with argumentation from the perspective of pure logic or semantic logic, but rather from a pragmatic perspective: attitude, expectations and anticipation of idealizations generated in the midst of the discussion. Although this approach does not exclude logic, it institutes a new paradigm with principal presuppositions as follows: each speaker is capable of understanding, and therefore of sharing a world with others; each individual is predisposed to open up to others (to de-center oneself) and to experiment with an inclination to clarify problems instead of marking positions; this ability to open up to others allows an authentic quest for truth to occur that originates in the interactions of exchanges in a discussion. On this account, a group of speakers can search for the best argument, knowing there is no absolute best argument.

The presuppositions of *communicative action* can be of great interest for P4C. On the one hand, to attempt to create a community of inquiry in a group is to propose a search for consensus in which concepts of *strategic action* and *communicative action* can shed light on the approaches used in a P4C workgroup. On the other hand, one of the principles of communicational ethics presupposes the equality of all participants. Now, we note that even if there is an asymmetry between the teacher's and the learn-

ers' knowledge, the relationship remains symmetrical with regard to truth. It is in this quest and within the framework of interpersonal exchanges aiming at inter-comprehension that communicational ethics develops. Searching for the best argument therefore presupposes the equality of all participants because consensus is possible only if this principle of equality is realized.

Within the framework of this study, we consider that to stimulate children's reflection, the teacher can use a wide spectrum of questions related to communicative action:

- A closed question that prompts either a yes or a no answer.
- An open question: «Why...» «What does...»
- Requesting an explanation: «Why do you think that?»
- Requesting a clarification: explaining in such a way that one can assume the explanation is complete.
- Requesting an argumentation: explaining according to a demonstrative and logical perspective by bringing forth proof, objections, refutations, etc.
- Appealing to a socio-cognitive conflict on the content of an idea.

We will use these questions as criteria to analyze the teacher's types of interventions.

## 2. Typology of Exchange

In this section, we present the second part of our theoretical framework, related to five types of exchanges observed within P4C sessions.

### 2.1 From Anecdotal Exchange to Critical Dialogue

From another perspective, namely Deweyan and Lipmanian pragmatism, a dialogue differs from a conversation (see Splitter and Sharp, 1995). In addition, dialogue is not a spontaneous mode of exchange, as conversation is; thus, it necessitates systematic and regular learning, by means of a *praxis*.

A previous research project<sup>2</sup> conducted with Australian, Mexican and Quebec pupils aged 10 to 12 years reveals that exchanges between pupils who use philosophy in elementary school are not homogeneous. On the contrary, they can be distinguished as belonging to five types: anecdotal, monological, non-critical dialogical, semi-critical dialogical and critical dialogical (Daniel et al., 2002). The objective of this study is to verify whether the exchanges of five-year-old preschool children could fall within the scope of this typology. Following is a description of each type of exchange.

An exchange is considered *anecdotal* when youngsters «speak» in an unstructured manner regarding personal situations. In this case, the pupils are not in a process of inquiry, they do not strive towards a common goal, and they are only slightly or not at all influenced by peer interventions. Furthermore, they do not justify their points of view, and their opinions are presented as conclusions.

Anecdotal Type of Exchange – Criteria
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| <ul style="list-style-type: none"> <li>- Exchange with a plurality of subjective objectives (no common goal)</li> <li>- Exchange that amounts to a series of personal anecdotes</li> <li>- These anecdotes are essentially directed toward the teacher</li> <li>- Discourse highlights a concrete thought based on perceptual experience</li> <li>- Youngsters are incapable of justifying their statements, even when stimulated by the teacher</li> <li>- Incomprehension of abstract concepts when the teacher introduces them in the exchange</li> <li>- Limited interest in peer perspectives; questions are not asked</li> <li>- The classroom amounts to a group of isolated individuals (rather than a micro-society or a community of inquiry)</li> </ul> <p>“-The children just talk”</p> |
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The exchange is considered *monological* to the extent that the pupils begin to enter a process of inquiry, but one that is essentially aimed at searching for «the» correct answer. Each pupil intervention is independent from the others. Pupils find it difficult to justify their opinions.

Monological Type of Exchange – Criteria
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| <ul style="list-style-type: none"> <li>- Pupils’ answers are brief (a few words rather than a complete sentence)</li> <li>- Answers are independent from each other, as though each person pursues an internal monologue</li> <li>- Statements are not spontaneously justified. They are justified only under teacher stimulation</li> <li>- Solving problems amounts to searching for the correct answer</li> <li>- According to the pupil, the teacher knows all the correct answers</li> </ul> <p>Pupil satisfaction resides in teacher approval</p> |
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An exchange is considered *dialogical* when pupils begin to form a community of inquiry, in other words, when they construct their interventions based on those of their peers, and they invest themselves in reflection through their motivation to solve a common problem as a group. The experiment with Australian, Mexican and Quebec pupils allowed us to note that a dialogical type of exchange was not critical *per se*. Thus, we identified three types of dialogical exchanges.

An exchange is considered *non-critical dialogical* when pupils aged 10-12 years old respect differences of opinion, construct their point of view based on those of their peers, and begin to justify their remarks. But at this level, the pupils do not evaluate the points of view or perspectives at stake, and they do not evaluate the validity, the usefulness or the viability of statements or criteria.

<b>Non-Critical Dialogical Type of Exchange – Criteria</b>
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| <ul style="list-style-type: none"> <li>- Beginning of a community of inquiry among pupils</li> <li>- Pupils dialogue</li> <li>- Respect for differences in points of view</li> <li>- Construction of ideas based on peer ideas</li> <li>- Statements are justified when the teacher guides them in this direction</li> <li>- Points of view are more complex</li> <li>- Quantity (rather than quality) of statements seems to be the pupils' goal</li> </ul> <p>Validity of viewpoints is neither evaluated nor questioned</p> |
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An exchange is considered *semi-critical dialogical* when, in a context of interdependence, some pupils are sufficiently critical to question peer statements, but the latter are not sufficiently critical to be cognitively influenced by the criticism dispensed, so that this criticism does not lead to the modification of the point of view or perspective.

<b>Semi-Critical Dialogical Type of Exchange – Criteria</b>
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| <ul style="list-style-type: none"> <li>- Common question to be solved (the common goal serves to bring reflections together)</li> <li>- Links between pupil interventions (interdependence of points of view)</li> <li>- Critical questions, however, they do not influence peers</li> <li>- Statements that are not always completely justified</li> <li>- Listening to others and respecting them are not completely integrated</li> </ul> <p>The result is that the initial idea is improved but not modified</p> |
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An exchange is considered *critical dialogical* when the pupils not only improve the group's initial perspective, but they also modify it. They are then capable of considering the other as the bearer of divergence and, as such, as a necessary participant to the enrichment of the community. Momentary uncertainty is accepted as being a part of any interesting discussion, and peer criticism is sought after in itself, as a tool to move forward in comprehension.

<b>Critical Dialogical Type of Exchange – Criteria</b>
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| <ul style="list-style-type: none"> <li>- Explicit interdependence between interventions</li> <li>- Process of inquiry is established</li> <li>- Search centered on the construction of meaning (vs. truth)</li> <li>- Search for divergence</li> <li>- Uncertainty does not create uneasiness</li> <li>- Evaluation of statements and criteria</li> <li>- Open-mindedness towards new alternatives</li> <li>- Spontaneous and complete justifications</li> <li>- Moral preoccupations</li> <li>- Statements in the form of hypotheses to be verified (vs. closed conclusions)</li> </ul> <p>Modification of the initial idea</p> |
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In sum, dialogue (*dia-logos*) is a complex activity with an intent characterized by reciprocity. It occurs by means of an intention of equality, through intersubjectivity. Dialogue is not only used to communicate, but primarily to construct meanings together. It is in critical dialogue that ideas are formed and that perspectives are enriched and transformed. Without being of a distinct nature, the critical dialogical type of exchange is different in its intent and in its modalities from the anecdotal and monological types of exchanges.

Are five-year-old children capable of dialogue? Are they able to dialogue in a critical manner? This is what this study attempts to establish.

## 2.2 Context and Sequence of Sessions

In this section we present the context of the study, and describe the manner in which the sessions took place during the experiment.

The context of the experiment was related to «primary» prevention of violence. In other words, P4C was intended for a «healthy» clientele, unaffected by violence. Both the families and the school considered that philosophical reflection on concepts related to the body and to violence would likely have a preventive effect. The material used was *The Tales of Audrey-Anne* (Daniel, 2002) as well as a philosophical guide intended for teachers, *Philosophising on Body and Violence: A Step Towards Prevention* (Daniel, 2003). The collection of tales includes 16 short philosophical tales written for children aged 4 to 7 years, and more or less explicitly related to various types of manifestations of violence (physical, verbal, environmental, sexual, etc.).

During the very first philosophical session, the teacher tells the children, using words that are easily understood, what the P4C sessions will be about (reading of a tale, gathering questions, discussions and activities), what she expects of them (listening, respect of divergences, active participation, etc.) and what their goal is (learning to think better with the help of others, to better understand the world, etc.).

Subsequently, the sessions, as experienced by several kindergarten classes from the Montreal area, develop as follows. Firstly, the teacher puts on a puppet show to tell the children one of the tales from the collection, and then she asks the children to tell the story in their own words to make sure they understood. Secondly, the teacher asks the children to question some situations in the tale in which they had a particular interest, and which they would like to discuss as a group. As these are formulated, the teacher writes the questions down textually on the blackboard (in words for those that can read and in symbols for those that cannot) taking care to identify the child's name (even if they cannot read, they can recognize the letters in their name), which is important to them. If a child poses a question that has already been formulated, his or her name is added beside the other child's name. The teacher asks questions of the children to help them specify their own question, and to ensure that it is related to the tale and that she has correctly understood its meaning. Usually 10 to 15 questions emerge. These two activities (reading the tale and gathering questions) will often last from 45 to 60 minutes, or one full session.



In the next session, the teacher begins to deal with the children's questions one at a time. Indeed, children this age devote much time and effort to formulating questions, so dealing with all of the questions becomes a matter of respect. An exchange on a question regarding text comprehension will rapidly be solved, whereas an exchange regarding a question that consists of a real problem or a philosophical issue will be debated at length. In sum, a tale can sustain the children's reflection during two or even three weeks. Dealing with questions is essentially done through exchanges, but in kindergarten, introducing or concluding the exchanges with an activity (role-playing, comparison exercise, drawing, physical activity that favours awareness of the body, working in teams of two, etc.) is highly recommended. Naturally, this activity must be related to the content of the question and bear philosophical teachings. It was observed that kindergarten children from certain socio-economic backgrounds that do not value discussion, or children with learning difficulties or language problems, learned just as much with philosophical *activities* as children in regular classes with philosophical *exchanges* (Daniel et al., 2001; Schleifer et al., 2003).

### 3. Method of Analysis

Our research is exploratory. It consists of a case study with a classroom of 20 five-year-old children. The children attended a school in the Montreal suburbs and came from an average socio-economic background. The facilitator for the philosophy sessions had received no previous training in either philosophy or Philosophy for Children (P4C), but was assisted on a weekly basis by the researcher, who guided her in her class preparation.

The P4C sessions took place each week, between the first week of February and the third week of May. The duration of the sessions varied according to the children's concentration levels; on average, they lasted 45 minutes. Each session was tape-recorded and immediately transcribed in full. Written parental consent was provided. In the transcripts, the names of the children and of the facilitator were changed to a code to ensure confidentiality.

For our analysis, we used five transcripts of exchanges, namely the first two (which took place in February) and the last three (which took place between the end of April and mid-May). To this end, we did not retain the sequences related to reading the tale, nor to gathering questions by the children, since these were individual activities, and thus did not meet the objective pursued by the research, namely the analysis of children's dialogue-learning process. Neither did we retain, for analytical purposes, the sequences characterized by physical activities, arts and craft activities in teams of two and team games which, to be valid, would have required more sophisticated recording techniques and audiovisual equipment. For the purposes of our analysis, we retained only the sequences that included verbal exchanges among pupils. In other words, the excerpts reproduced in the appendices and analyzed in this article were specifically chosen because they significantly reflected the children's exchanges.

As a first step, we conducted a quantitative analysis in which we compared the children's verbal productions to those of the teacher to determine whether the P4C sessions favoured children's verbal productions. Then we studied how the verbal productions were distributed among the children.

In the second part, transcripts of children's exchanges were analyzed one by one. This qualitative analysis of the children's exchanges was based on criteria inherent in the five types of exchanges previously described. Then we analyzed the incidence of teacher interventions based on criteria from Habermas' communicative-action framework.

#### 4. Results

In this section, we present the results that emerged from the analyses conducted within the framework of this study: 1) the quantitative analysis of the children's statements; 2) the qualitative analysis of each session of P4C, including exchanges among children and teacher interventions.

##### 4.1 Quantitative Analysis of the Children's Statements

In Table 1, the analysis accounts for statements (number of words) generated, by the children and the teacher, in the five transcripts presented in the appendix. The percentages summarize the share each of the two parties holds in each session. For example, in the first session (Transcript 1), 280 words were identified in the excerpt, the children generating 152 (54%) and the teacher 128 (46%).

*Table 1: Number of words generated by the children and the teacher*

	Transcript 1	Transcript 2	Transcript 3	Transcript 4	Transcript 5	Total
Children	152 54%	259 58%	338 65%	310 84%	467 82%	1526 70%
Teacher	128 46%	189 42%	183 35%	61 16%	101 18%	662 30%
Total	280	448	521	371	568	2188

The percentages in the table show an increasing tendency in the children's verbal productions and a decreasing tendency in those of the teacher. Indeed, during the first session of P4C, the production of language is equally shared between the children and the teacher. From the third session onward, the children's production becomes largely predominant. This first analysis underlines the positive effect of P4C on the development of the classroom group's linguistic abilities. Indeed, the children no longer respond with a «yes» or a «no,» they now express their points of view by using numerous words. Furthermore, if we consider the fact that there is a link between thought and language, we can recognize the impact of P4C on the development of thinking in children.

Then we verified how the interventions (vs. the number of words) were divided. If the number of children's and teacher's interventions is approximately equal, this implies that the children have little autonomy during the discussions. In other words, if we count an equivalent number of interventions between the children and the teacher, this indicates that the children answer only when solicited.



*Table 2: Number of interventions in the five transcripts*

	Transcript 1	Transcript 2	Transcript 3	Transcript 4	Transcript 5	Total
Children	17	19	27	27	24	114
Teacher	10	14	12	6	11	53
Total	27	23	39	33	35	167

What emerged from the analysis of the transcripts (see Table 2) is the fact that between the first and the last transcript, despite strong teacher guidance, the children's interventions tended to increase, whereas those of the teacher remained almost stable. The data in the table should be read as follows: for the first transcript excerpt, the children spoke 17 times and the teacher spoke 10 times. The increase in children's interventions underlines the fact that they no longer wait to be stimulated to answer by the teacher. We can assume that a discursive dynamic sets in as the sessions progress, and that the children gain intellectual autonomy.

Finally, we verified whether all of the children contributed during the P4C sessions or whether the increase regarding number of interventions and words generated, which was noted in tables 1 and 2, benefited only part of the class.

Table 3 below summarizes for each child the number of words generated during each transcript, as well as the number of interventions. The data in the table can be read as follows: the first line concerns child AA's productions. In the Trans.1 column (from the first transcript), the child uttered 20 words and spoke 4 times, which represents an average of 5 words per intervention. In the last column (Total), we summarize the number of words generated during all five transcripts. Thus child AA, when he expressed himself, did so with 234 words, which represents  $234/1526 = 15.3\%$  of the production of words generated by all the children. AA intervened 21 times, which represents  $21/114 = 18\%$  in relation to all the children's interventions during the five transcripts. The Total column sums up only the word productions and interventions of children who we refer to as «big talkers»; namely the following children: AA, Mel, Ch, PL, A, L-S, W and Br.

The figures in this table do not indicate a real overall progression, except for the last transcript, in which the children had to solve an ethical problem. Out of the 20 children in the group, we note that 17 spoke at least once during the five philosophical sessions. It should therefore be stressed that almost all of the pupils participated at one time or another in the discussion, whether during a discussion work-group (transcripts 1, 4 and 5) or during a more educational work-group (transcripts 2 and 3). A less positive point draws our attention; the community of inquiry seems to touch, based on the numbers, only a minority of the 20 children. Indeed, only one-third of the children (the «big talkers») account for 85% of the production of statements and 79% of interventions.

Children	Trans. 1		Trans. 2		Trans. 3		Trans. 4		Trans. 5		Total
AA	(20 (5)	(4)	(33 (8.2)	(4)	(21 (10.5)	(2)	(61 (10)	(6)	(99 (19.8)	(5)	(234; 15.3%) (21; 18%)
Me1	(29 (7.25)	(4)	(119 (29.8)	(4)	(13 (7.5)	(2)			(135 (27)	(5)	(296; 19.4%) (15; 13%)
Ch	(18 (9)	(2)	(30 (10)	(3)	(37 (12.3)	(3)	(54 (10.8)	(5)	(33 (16.5)	(2)	(172; 11.2%) (15; 13%)
PL			(14 (14)	(1)	(46 (11.5)	(4)	(64 (12.8)	(5)			(124; 8.1%) (10; 8.8%)
A					(38 (12.6)	(3)	(74 (12.3)	(6)	(45 (45)	(1)	(157; 10.3%) (10; 8.8%)
LS	(16 (8)	(2)	(5 (1) (5)				(27 (13.5)	(2)	(72 (24)	(3)	(115; 7.6%) (8; 7%)
W			(16 (2) (8)		(58 (58)	(1)			(38 (19)	(2)	(112; 7.3%) (5; 5.3%)
Br	(36 (12)	(3)	(36 (18)	(2)	(13 (13)	(1)					(85; 5.5%) (6; 5.3%)
Za			(6 (1) (6)		(18 (2) (9)		(8 (1) (8)		(13 (7.5)	(2)	
Ca					(43 (10.9)	(4)			(19 (19)	(1)	
Jus					(10 (2) (5)						
Al					(39 (16.5)	(2)					
JU							(22 (11)	(2)			
Z									(13 (6.5)	(2)	
El	(2 (1) (2)										
Si	(31 (31)	(1)									
M					(20 (20)	(1)					
Number of Words Interven	152 17 8.9		259 19 13.6		338 27 12.5		310 27 11.5		467 24 19.4		1526 114 13.7
Word/S tat. Number of children	7		8		12		7		9		

#### 4.2 Analysis of the Transcripts of Exchanges

In the following sections, we present the qualitative analysis of each of the five transcripts retained for the study. The analysis was conducted based on two aspects of the theoretical framework: the

typology of types of exchanges by Daniel and colleagues (to analyze the children's interventions) and Habermas' criteria (to analyze the teacher's interventions).

#### 4.2.1 First Transcript – Mid-February (Appendix 1.1)

With regard to the analysis of children's interventions, we note that the first exchange between the children, because it is well controlled by the teacher, surpasses the expression of personal anecdotes that are unrelated to the question asked. Indeed, the children's interventions are well targeted. However, we note that, most of the time, their interventions are independent from one another, each one contributing a different point of view. Therefore, there is no perspective construction, but rather a juxtaposition of points of view. In addition, these points of view are directed toward the teacher, not toward peers.

- I Let's move on to another situation. Which is more pleasant: when you gently push a friend, or when you violently push a friend?
- El Gently push.
- I Can anyone help El and say why it's more pleasant?
- Mel It's more pleasant because it hurts less.
- L-S You won't really feel like playing with that friend anymore.
- AA It can make him really mad.

We noted two exceptions to the juxtaposition of points of view: firstly, when a child (Ch) completely disagrees with a fact that another child (AA) stated. Only then do they address each other.

- I Why do you say it can make him really mad?
- AA Because he might bite you.
- Ch It's not a dog. Friends don't bite. It's just dogs that bite.

Secondly, when the teacher gives the children to understand that AA is mistaken, three other children (LS, Br, Ch) state points of view in relation to AA's intervention, as if to help him make sense of his remark.

- I AA, did you make a mistake with the question about dogs? It doesn't matter.
- LS We're here to learn.
- Br I've seen someone bite another person.
- I Br, you say it's possible for a person to bite another person.
- Ch Mostly babies.

In the last two cases, we can assert that the children are interested in the perspectives of their peers because they react. Nevertheless, here again the exchanges involve, respectively, only two and three children. We cannot say that the object of the exchange represents a common objective for the majority of pupils. In addition, the reactions are very succinct and remain without reply.

Another point to be noted is that the children's interventions are essentially based on perceptual experience, that is, they consist of a few words or of incomplete, if not ill-structured, sentences. It

remains that the children are capable, when stimulated by the teacher, of justifying their point of view using concrete elements.

- I Which is worse, being bitten by an animal or by a person?  
 Mel By an animal.  
 I Why do you say that?  
 Mel Well, because animals have sharper teeth.  
 Si Because all our teeth are flat except for two, and in animals, they're all sharp, that's why animals can bite harder than humans.

The request for a justification by the teacher, because it generates cognitive conflict in the children's minds, leads them to use more complex thinking skills, such as specifying (Mel), and comparing and using arguments (Si).

Overall, the first exchange analyzed in the experiment is anecdotal.

What about the teacher's role? During this session, she helps the children justify their points of view («*Why do you say that...?*») In addition, she ensures coherence in the children's answers by trying to orient their reflections towards conceptualization.

- Which situation is most pleasant: gently petting Whisker's nose or petting Whisker by strongly pressing on his nose?
- Let's move on to another situation. Which is more pleasant: when you gently push a friend, or when you violently push a friend?
- Which is worse, being bitten by an animal or by a person?

The formulation of these three questions results in a double cognitive conflict. Is the task too complex for the children? On one hand, choosing between two propositions involves important cognitive work: understanding, memorizing and judging content. On the other hand, using the coordinating conjunction «or» introduces a disjunctive and conjunctive (AND/OR) logical-mathematical structure that is complex. In children this age, intellectual construction of such a logical structure is in its early stages. Thus, these three questions might not really lead to a discussion. The children simply repeat part of the teacher's statement. AA's first answer is followed by a request for a justification («*Can you say why?*»), to which the child does not respond. In fact, we must wait for the juxtaposition of a point of view to bring out the beginning of an explanation, on which the teacher judiciously bases herself to solicit the child's reflection.

- I (...) why is it more pleasant?  
 AA It can make him really mad.  
 I Why do you say it can make him really mad?  
 AA Because he might bite.

It seems easier for the child to provide an explanation when it is based on a simpler question where there is only one assertion. Furthermore, the fact that the teacher reformulates AA's answer seems to encourage him to provide further explanations. Indeed, reproducing his statement amounts to

recognizing the interest of AA's intervention; it also facilitates remembering since content is recalled. Obviously AA's answer is not quite satisfactory, since the child offers a consequence rather than a cause. At the end of the excerpt, child Si provides a similar explanation. Moreover, the teacher's request for the other children in the classroom to help child El seems to have had a negative effect on this child, since from this moment on, he does not intervene.

I: Can anyone help El and say why it's more pleasant?

If we refer to the *life world* (see communicational ethics), we can assume that, subjectively, El may feel disqualified as a peer towards the other speakers. This encourages those who, in all likelihood, consider themselves more qualified; the «big talkers» (AA, Mel and L-S) are the ones that speak. Here, the equality status in the search for mutual understanding is broken.

This first transcript therefore underlines the difficulty for the teacher in facilitating a P4C work-group. The discussion involves quick-wittedness and training on the teacher's part to immediately grasp snatches of thoughts that could constitute the beginning of a discussion. The adult should also be aware of the subjacent stakes on which the philosophy of such a work-group is based. It appears that the teacher's interventions are situated more on the strategic-action side.

#### 4.2.2 The Second Transcript – Third Week of February (Appendix 1.2)

Firstly, we become aware that, overall, the excerpt (presented in the appendix) is based on children's perceptions and on a search for the correct answer, which denotes an epistemology we relate to egocentricity<sup>1</sup>.

The children do not justify their points of view. Even when the teacher guides them in this direction, they give an answer, but this answer is not always a clarifying reason (Ch).

I Very well. Now, if I say «a bird's wing». What can we compare it to?  
 Ch To a feather.  
 I Why to a feather, Ch?  
 Ch Because wings have feathers and feathers are like (...) Feathers are like a bird.

The children, supported by the teacher's questions, manage to listen to each other mutually, since they often reply. They also inspire themselves from the other person's answers to construct their own (Mel, Br, Chil.) and thus improve the group's perspective.

I Do you all agree with Ch?  
 Chil. Yes! No!  
 I Who doesn't agree? Mel.  
 Mel Because we hadn't said it had to be the same shape and I don't find that it's the same shape. Instead of a bird's feather (...) it could also be (...) a rabbit's ear.  
 Ch Of course not, a rabbit's ear is...  
 Mel It's round.

- I Do you agree with Mel?  
Chil. No! Yes!  
AA I don't agree because a rabbit's ear doesn't have these little things (shows a jagged outline with his fingers).  
I Do you have another idea what a bird's wing could look like?  
AA Well...  
Mel I still don't agree with AA because sometimes wings can be round. It's not always the same kind of wing.  
Br I have an idea of something that looks like a bird's wing; it's a peacock's tail when it's wide open.  
I Br, why does a peacock's tail make you think of a bird's wing?  
Br Because a peacock's tail has little jagged ends like a bird's wing, it has the same shape.

The children do speak to each other. However, is this a dialogue? It could be said that they are beginning to invest themselves in the dialogue, since the exchange involves interventions of at least four children centered on a specific object. The classroom is no longer a group of isolated individuals, it is beginning to form a community of inquiry, at least between four pupils. Their answers are marked by interdependence and they draw inspiration from peer points of view to elaborate their thoughts. Nevertheless, the points of view are simple and result from observation rather than reasoning.

We could even maintain that their dialogue is semi-critical, since the validity of points of view is evaluated, and interventions are explicitly stated with the purpose of evaluating the other's answer. If the transcript does not enable us to grasp to what extent criticism succeeded in creating cognitive conflict in the mind of the receptor child, and thus lead him to readjust his point of view, we note that the classroom's initial perspective is improved at the end of the exchange in comparison to what it was at the beginning. Is the purpose of criticism oriented towards the pleasure of contradicting the other person or toward improving the community's perspective? The transcript does not provide any clues. We must therefore qualify the dialogical exchange as semi-critical.

As the exchange progresses, criteria emerge. To summarize, the teacher asks the children to choose the answer which seems most appropriate to them.

- I Now, we have three possible answers: a feather, a rabbit's ear and a peacock's tail. Can we choose which one looks most like a bird's wing?  
Chil. A peacock's tail.  
I Why?  
Chil. Because it is jagged like a bird's wing.

Searching for criteria, placing points of view in a hierarchy and making informed choices are all intellectual tools pupils should be familiarized with in order to, as discussed by Brénifier (2004), orient them toward the «art of producing good ideas and learning to recognize them» (p. 2). Only then will the exchange avoid negative relativism, which bears laxness and loss of meaning.



Within the same session, another activity of comparison with the children gives four of them the opportunity to invest themselves in another exchange of a dialogical type, where justification is more sustained (Mel) and where criticism is nuanced (PL).

- I Good. Now, what can we compare a lump of sugar to?  
 W To a grocery cart.  
 Mel I want to say something to W. I don't agree with you because the wheels, do they look like a lump of sugar? We have to find things that don't roll. Plus, the wheels are round. And look at the cart's grid.  
 W The grid, it looks like the little dots on a lump of sugar.  
 LS I agree with W.  
 I Would you like to say why?  
 PL Because the wheels aren't a good answer, but the cart is square.

In this excerpt, we note that the teacher is no longer the only facilitator in the classroom. At least one child manages to take over by asking questions and by reminding the others of the criteria of the activity (Mel).

In sum, the second transcript involves several criteria from a dialogical or indeed a semi-dialogical type of exchange. However, the dialogical sessions are brief, they are comprised of at most four children at a time, and they result more from observation than from reasoning.

Is the evolution in the children's type of exchange linked to the teacher's Socratic facilitation? Overall, we note that the objective of this work-group refers more to an academic learning than to a philosophical discussion, since the purpose is to bring the children to use analogies and comparisons. In sum, we could take up Vygotski's expression: it is a question of developing the *proximal development zone* relative to the cognitive skills needed to conceptualize. The intellectual requirement in this work-group is high: «What can we compare a bird's wing to?» (the reader can exercise his own reflection to evaluate the level of difficulty of this question). At the beginning of the excerpt, the children's answers are tautological. The teacher's formulation of the question «*Why to a feather?*» might be understood by the child as an underlining of the insufficiency of his answer rather than as an invitation to develop an argumentation.

- Ch To a bird's feather.  
 I Why to a feather, Ch?  
 Ch Because wings have feathers and feathers are like (...) Feathers are like a bird.  
 I Do you all agree with Ch?  
 Chil. No! Yes!

Then the closed question «*Do you all agree with...?*» indeed only results in an agreement or a disagreement. Furthermore, the formulation of this question implies a judgment on the author and not on the idea. It would have been preferable to ask: «Do you all agree with Ch's answer?» or to distance the statement from its author and to ask the group to clarify the assertion: «*What is comparable between a wing and a feather?*» so as to orient the children towards the notion of shape and attempt to

search for other shapes that remind us of a bird's wing. The teacher could also have encouraged a more argued decision in choosing between the feather, the rabbit's ear and the peacock's tail.

In this transcript, it seems that certain teacher interventions guide the children's suggestions too rapidly toward an answer, and do not sufficiently orient the socio-cognitive conflict concerning what has been stated.

Overall, what is striking in this excerpt is the richness of the teacher's types of questions: 6 requests for explanations, 3 times she provokes a socio-cognitive conflict, 3 times she revives the reflection, 2 synthetic reformulations, and 1 regulation as help.

#### 4.2.3 The Third Transcript – End of April (Appendix 1.3)

At the beginning of the third transcript, we note that the children revert to an anecdotal or monological type of exchange, in the sense that each intervention is independent from the others and all are oriented toward the teacher. Children do not elaborate their point of view based on peers' interventions.

- I (...) How about if we now answer the question Jus asked, «Why do children get diseases?»  
 AA Because sometimes they don't get vaccinated.  
 Ch Because sometimes they go outside without a scarf.  
 A Maybe sometimes the body wants to control itself.

This regression indicates that dialoguing is a complex activity, that this type of exchange does not come naturally to children, that systematic and continuous teaching is required, and that learning is not a finished product, but rather an open process that presupposes switching back and forth between evolution and regression.

Stimulated by the teacher, at the end of the session, the children engage in another short semi-critical dialogue that mobilizes another group of four children. This excerpt is interesting on a philosophical level because it rests on concepts that are more abstract (poverty, death, health, vitamins, etc.). It moves away from personal experience subjected to the senses. Egocentricity gives way to relativity. Of course, the children relate remarks learned at home or at school. Nevertheless these interventions presuppose several complex thinking skills in the children: the beginning of logical thinking (Ca), criticism (*Poor people that never eat (don't die but they) have no muscles*) (PL), counter-example to PL's intervention to counterbalance his initial intervention (Ca), precision added to Ca's intervention (Al), criticism of Al's intervention justified with an example (Ca), statement of causes (PL and Al) and self-criticism (Al).

- I Can you name some actions that don't help your body heal?  
 Ca If you never eat, you can die.  
 A No, that's not true.  
 PL Poor people that never eat have no muscles.

- Ca When you eat too much chocolate, it's not good for your health. (...) Also, if you never eat, you're going to die.
- Al And if you eat too much chocolate you'll stay little.
- Ca No, you'll become fat. You'll get a big tummy.
- PL That's because there's too much sugar in there.
- Al Yes and not even any vitamins. There's some milk except that...you can drink some water or a bit of milk instead.

Of note is the fact that the children engaged in the exchange on their own, without teacher support.

In sum, in the third transcript, several different children (12) participated in the exchange, and a great number of questions were formulated. The third transcript brings to light the difficulty in learning to dialogue, and cognitive apprenticeships related to complex thinking skills. In parallel, the children's epistemology becomes increasingly complex while gradually detaching itself from personal experience and observation based on the senses, to fall within the scope of intersubjective experience abstraction. Each transcript highlights the constant switching back and forth from spontaneous tendencies to developed skills, the skills becoming more complex as the weeks go by.

With regard to the teacher, what appears to be new in her Socratic maïeutics are interventions that encourage the children, «*O.K.*»; «*Very well*»; «*Yes*»; «*Well...*» Furthermore, at the beginning of the excerpt, she articulates two reformulations that add complexity to the problem.

- Ch I have a question. In the story, why did the child call his friend on the phone?
- I O.K. We could ask the others. Why do children phone their friends?
- (...)
- Jus Why did Audrey-Anne get chickenpox?
- I How could you generalize your question Jus?
- Jus I don't know.

When the teacher asks the others to help Jus generalize his question it only involves changing words in the statement. Just as we noted the difficulty in conceptualizing, it is logical that these same children cannot add complexity to a problem. However, the teacher intervenes less often, and when she does so, it is to ask for an explanation and encourage the children to develop their points of view.

- A: Maybe sometimes the body wants to control itself.
- I: What do you mean, A? Can you explain your idea?
- A: Well...how can I explain it? I'll try. Well when a kid doesn't want to control his body, it shows, and then the body wants to take control.

This time, the teacher's formulation stresses her interest, while noting that what has been said is not quite comprehensible. She asks child A to try to explain, «*Can you,*» giving him permission to start an explanation that is deemed difficult. It is no longer an order, «*Give an explanation*»; «*Why?*» she asks A to explain his idea, which increases the value of what he previously said. At the end of the excerpt, the

teacher slips away and leaves Ca, A, PL and AI to discuss in a very rich exchange, even if they don't answer her defining request. This interaction develops a chain of coherent thoughts. There are more links between the children's answers, the teacher's interventions are more flexible, and she more often reformulates what the children previously said.

#### 4.2.4 The Fourth Transcript – Beginning of May (Appendix 1.4)

This transcript is a continuation of the previous one, in that the teacher helps the children generalize their questions and their statements to guide them toward more constant conceptualization.

The exchanges are constructed around a problem that is relevant to them «*Why do older kids tease younger kids?*» The end of the session reveals a dialogical type of exchange in which five children, a quarter of the classroom, participate (Ch, A Ju, LS and AA). We note that the children participating in the dialogues are not always the same. Although not situated on a conceptual level, nonetheless, the exchange has an interesting level of abstraction for children of this age group, in that the beliefs on which their statements are based do not reflect sensory perceptions but rather a more rational grasp of reality. In this excerpt, the pupils form a community of inquiry around the criteria that define friendship. Because they do not share the same vision, a socio-cognitive conflict is created, and they attempt to solve it through a dialogical exchange, which is conducted in a relatively autonomous manner. The following criteria regarding friendship emerge: liking each other (Ju); knowing each other (LS); seeing someone and knowing the person's name is not enough, you have to play together to be friends (A); and friends don't tease each other (AA). It should be emphasized that these criteria remained implicit for the children, and were not evaluated by the community of inquiry.

Several complex thinking skills are brought into play in this excerpt: a solution hypothesis (Ch), a logical reason (A), the formulation of a paradox (Ju), a stand regarding the tale's content (A), the enunciation of a good reason resulting from the tale (LS), a detail added regarding the tale and a distinction between two criteria of friendship (A), and a deduction based on a causal relationship (AA).

- I        Regarding the first question, «It's not nice for older kids to tease younger kids,» I would like to know «Why do big kids sometimes tease smaller kids?»
- Ch      Maybe its because they're big and they're not nice.
- A        Because they don't like smaller kids.
- I        Does everyone agree with Ch and A?
- Ju      I don't agree.
- I        Why?
- Ju      Because they're his friends and they don't like him. That can't be.
- A        No they're not friends.
- LS      Yes they're friends because Vincent knows them.
- A        No. He knows them but they aren't friends. He only sees them, they don't play together.
- AA      I agree with Ch but not with A.
- I        Can you explain why?
- AA      What was it that A said?

- A I said he only knows them. He often sees them, they told him their names and they don't play together. And now, they don't like Vincent.
- AA They aren't his friends because they laughed at him.
- A That means you agree with me.

Furthermore, we note that the exchange is de-centered from personal experience. The children's statements presuppose an analysis of the feelings of the older children (*maybe they don't like the younger kids*), they rest on an analysis of the tale's content (... *because Vincent knows them; he only sees them, they don't play together*) and they imply a generalization, a simple reasoning (*they aren't his friends because they laughed at him*). Consequently, the exchange is rather complex, and represents interesting progress on the conceptual level (without, however, being based on concepts).

Finally, we note that the children still speak to each other through the teacher (AA) and that criticism does not influence them to readjust their points of view (A). Furthermore, the purpose of their argumentation is to show that they are right.

In sum, the exchange is oriented around the definition of a friend, which becomes the common problem to be solved. Children's interventions are interdependent from one another, statements are sometimes critical, children do not truly consider criticism yet they adjust their points of view. We are not able to verify whether the initial classroom perspective was modified later, as often happens in discussions, even among adults. The teacher was not able to seize the opportunity to synthesize, to place the points of view or the criteria in a hierarchy and to ask the pupils to reformulate their definition of a friend, after the exchange. The statements are generally justified, although not spontaneously, and the children's arguments serve to show that they are right. We are therefore situated in an epistemology oriented towards relativity (see the previous footnote), which is already a very interesting advance for kindergarten children. This can be qualified as a semi-critical dialogical exchange.

With regard to the teacher's interventions, to begin with, her comments were stimulating for the children: «*You generalized that well. Well done!*» Then, she favoured the development of the community of inquiry: «*You can look at AA and ask her.*» Finally, she regularly asks the children to justify their points of view: «*Why?*»

Nevertheless, some of the teacher's interventions seem rather mechanical, and her requests for explanations involve very complex analytical skills on the part of the children. AA's answer reveals a cognitive overload; this child does not remember what A said and at the same time disagrees with her remarks.

- A No. He knows them but they aren't friends. He only sees them, they don't play together.
- AA I agree with Ch but not with A.
- I Can you explain why?
- AA What was it that A said?

In a perspective of improvement, it would be more interesting to ask the child to reformulate the remarks she says she agrees with and, once we are sure there really was inter-comprehension, en-

courage her to try to construct argumentation. Then, by presenting the argument as an object of thought, we could bring the group to complete and refine AA's argumentation.

#### 4.2.5 The Fifth Transcript – End of May (Appendix 1.5)

The last transcript was drawn up after a role-playing exercise produced by the teacher in which five children participated. The excerpt presented below is rich on the epistemological level. A first solution, more related to egocentricity, is focused on personal well-being (Mel), two others, more related to relativity, are focused on the well-being of others (Ca, AA), and yet two others, more related to intersubjectivity, are oriented toward straightforward communication (LS, AA). Furthermore, we note that the children's interventions become lengthier, more complete and better organized. Justifications are sometimes spontaneous and sometimes at the teacher's request, but they generally constitute a good explanatory reason for the viewpoint.

- I Let's do another game to think about our solutions. Here is the situation: Jojo doesn't like the candy her aunt gave her, but she eats it anyway because she doesn't want to disappoint her aunt. According to you, is this a good solution?
- Ca I think it's a good idea (...) because she won't be sad.
- I Does anyone agree or disagree with Ca?
- Mel I don't agree (...) I would take the candy and drop it in the garbage and say I finished the candy. (...) because I don't want to eat mints I don't like. (...) This way, she won't know I didn't eat them.
- I Do you agree with the ideas that were just said?
- LS I don't agree with Mel because if my aunt gave me some candy I don't like and I threw it away, when she throws something away, she will look in the garbage and see the candy and she would be angry with me.
- Mel If we put them way, way, way down in the bottom and put some stuff over them and then close the lid...
- LS I have another idea. All you have to do is tell your aunt «Could you change the candies?»
- AA I don't agree with Mel because when you put the candy at the bottom of the garbage, you can get your hands dirty.
- I Well then, what would you do?
- AA Well, I would eat them even if I don't like them. If I really, really, don't like them, I'll give them back to my aunt without telling her I don't like them.
- I Why is it important for you to be truthful?
- AA Because if not, my mommy won't believe me anymore.
- Z Well, I would eat a little bit.
- I And what would you do with the rest?
- Z I would give it away.

Finally, we note that in this excerpt, the children make cognitive efforts to reach a practical and realistic solution that does not penalize anyone. This type of exchange is semi-critical dialogical (Mel, LS, AA), indeed even self-critical (LS). As interventions are made, the solution becomes more graded and refined. The general point of view was not summarized, but we can observe that there was a double



starting point (eating candy you don't like to avoid disappointing an aunt (Ca) vs. putting the candy in the garbage to fool the aunt (Mel)), whereas the final point of the discussion is oriented toward a compromise resulting from a reflection (trying to eat a little and if I really don't like them, I'll give them back to my aunt (AA), and eating a little and giving the rest away (Z)). In sum, this session is the most successful of the five from the linguistic, cognitive and epistemological points of view.

It is also in this session that the teacher proposes the most diversity with regard to the questions: 3 requests for explanations, 2 requests for clarifications, 2 solutions to problems, 2 socio-cognitive conflicts, 1 argumentation request and 1 open answer.

The teacher always lets the children express a stream of words before she intervenes. She regularly states a request for clarification by reformulating what was said. The form of the statement she uses is neutral, without judgment, but creates links and meaning to incite interactions. For example, the form of the question «*What do we...*» invites the speakers to take part in the research, which causes the answers that follow the teacher's request to be coherent.

Ch     It makes me sad.  
I        When we're sad, what can we do?

The socio-cognitive conflicts that the teacher provokes, as in the previous excerpts, are not focused on content.

I (1)    Does anyone agree or disagree with Ca?  
I (2)    Do you agree with the ideas that were just said?

Nevertheless, the children provide interesting answers. Mel makes a suggestion and justifies his disagreement, but the topic is related to candies. Would his answer have been as relevant with regard to a less meaningful object? The second solicitation by I (2) summons the interventions of LS, Mel and AA, which are both justified and interrelated. The only reservation we might advance is that once again they are the «big talkers.» As demonstrated in the quantitative analysis, the discussion mainly results from a nucleus of 8 children (AA; Mel, Ch, PL, A, L-S, W and Br). It is therefore unfortunate that we cannot find a passage in which a socio-cognitive conflict entails such an interesting discursive dynamic among the other members of the group.

## 5. Conclusion

In sum, the results of the analysis indicate that the classroom group progressed to the extent that it was closely guided by the teacher. Progress was manifested, firstly, in the development of the group's language skills, specifically in the increasing number of words uttered by the children to express their thoughts between the beginning and the end of the experiment (Table 1).

Secondly, progress was displayed on the level of the children's intellectual autonomy. As the P4C sessions progressed, the number of their interventions increased in relation to the number of teacher interventions, which remained stable from one transcript to another (Table 2). However, we do not

know whether this linguistic and cognitive progress can be ascribed to all the pupils in the classroom or only to the «big talkers» « eight children out of 20 (Table 3).

Thirdly, the group evolved with regard to the quality of exchanges, particularly in the transition over time from a first exchange of an anecdotal type to dialogical and semi-critical dialogical types of exchanges. Thus, by the end of the experiment, the children's discourse, without becoming conceptual, surpasses one or two word answers to reflect more complex interventions, that is, more elaborated, better articulated and more reasoned interventions. Is the concrete character of the children's discourse a sufficient criterion to invalidate the dialogical and semi-critical character of the exchanges? *A priori*, our answer is that it is not sufficient, since semi-critical dialogical criteria concern the form of the exchange, whereas vocabulary essentially concerns content. Additional studies will be required to provide other clues to fuel our reflection on the subject.

Fourthly, the analysis indirectly brought to light the fact that, with teacher stimulation, the children are able, within the space of a few months of philosophical *praxis*, to surpass: a) egocentricity in which each person is isolated in his interior monologue and is not the slightest bit influenced by peer opinions, and b) negative relativism where each opinion is juxtaposed to the previous ones with the intent of accumulating as many points of view as possible, but without recognizing any hierarchy among these points of view. We observed that the exchanges underscored the following complex thinking skills: justifying points of view, active listening, using logical reasoning, considering peer points of view when construction one's own, evaluating relevance, and criticizing peer statements. We can therefore maintain that the effects of P4C indeed favour the development of reflexive thought in five-year-old preschool children.

In parallel, we examined the extremely difficult and delicate role of the teacher's questions: «*Can you explain why you say that?*» «*What can we do to...?*» «*Does everyone agree with X's idea?*», and so on. Moving from a (traditional) didactical framework to a philosophical one is very difficult for any teacher. She cannot content herself with stimulating reflexive types of orientations in the children. The teacher must participate in this commitment and in this conversion. According to the precepts of communicational ethics, we cannot be satisfied with a situation where the teacher simply oversees the discussion, because she is also an element of the discussion, in the same way as the children are. Without this precept, the discussion remains an artifact. We therefore face a paradox: how can the teacher both facilitate the P4C work-group and appear as a participant in the philosophical discussion, in the same way as the children do? The method proposed by Lipman, and adapted in the Teacher's Manual (Daniel, 2003) seems to solve this dilemma. Indeed, by proposing activities of an educational nature (transcripts 2 and 3) between philosophical discussion sessions, we can fit in moments of learning that are necessary to the development of children's cognitive skills. To perfect this philosophical discussion-learning articulation, the teacher should be trained in P4C's subjacent epistemological stakes and be made aware of the pragmatic functions of language.

In sum, this study was exploratory, taking into account only one classroom-group. Its limits are therefore significant. Otherwise, it generated several hypotheses, which it would be interesting to verify in a subsequent study. This further study should include a larger number of classrooms, be divided between experimental and control groups, and include various data collection instruments including, in particular, pre-tests and post-tests.

The first hypothesis to be verified: the analysis of the first transcript brings us to question certain educational postulates in the Lipmanian approach. Is stimulating children of this age toward conceptualization appropriate for their cognitive and epistemological development, or does it require abilities of abstraction that are too distant from their scope of activities « in particular if we refer to Kohlberg's moral development stages? According to Kohlberg, at age 5, children's thoughts are situated at a pre-conceptual level, where the children tend to act based on punishment, and on obedience to authority. Are we depriving children of a «magical moment» when we impede the development of their first exchanges, even if they are anecdotal? Alternatively, is it appropriate to help them transcend the epistemological self-centeredness that characterizes them?

Another hypothesis that should be verified: the quantitative analysis (see Table 3) revealed that only 8 children out of 20 in the classroom accounted for 85% of the words spoken and for 79% of the interventions. In an informal manner, it is recognized among P4C practitioners that all of the children that attend weekly philosophical sessions show improvement in academic and language skills, even if they do not ever, or hardly ever, verbalize during the sessions. It would be relevant to scientifically verify (with pre-tests and post-tests) what each child has learned, including both the «big talkers» and the «voiceless,» on the linguistic, cognitive and epistemological levels.

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### Appendix

#### 1.1 Excerpts from the Mid-February Session

The children discuss a story in which Nick pets his neighbour's dog, Whisker, so energetically that he hurts him. He ends up pulling Whisker's hair and ears while bursting out laughing. Whisker doesn't appreciate Nick's treatment and wonders «What kind of petting is that, Nick? Are you allowed to hurt me, even if it's just for fun?» After reading the tale, the teacher, referred to as «I», suggests an activity for the children.

- I Which situation is most pleasant: gently petting Whisker's nose or petting Whisker by strongly pressing on his nose?

- AA Softly petting his nose.  
 I Can you tell us why?  
 AA It makes us happy  
 Mel And it makes the dog happy  
 Br When you pet a dog, and you do it too fast, it can hurt him and he can bite you.  
 I Explain yourself.  
 Br Because the dog can be mad.  
 I Let's move on to another situation. Which is more pleasant: when you gently push a friend, or when you violently push a friend?  
 El Gently push.  
 I Can anyone help El and say why it's more pleasant?  
 Mel It's more pleasant because it hurts less.  
 L-S You won't really feel like playing with that friend anymore.  
 AA It can make him really mad.  
 I Why do you say it can make him really mad?  
 AA Because he might bite you.  
 Ch It's not a dog. Friends don't bite. It's just dogs that bite.  
 I AA, did you make a mistake with the question about dogs? It doesn't matter.  
 L-S We're here to learn.  
 Br I've seen someone bite another person.  
 I Br, you say it's possible for a person to bite another.  
 Ch Mostly babies.  
 I Which is worse, being bitten by an animal or by a person?  
 Mel By an animal.  
 I Why do you say that?  
 Mel Well, because animals have sharper teeth.  
 Si Because all our teeth are flat except for two, and in animals, they're all sharp, that's why animals can bite harder than humans.

### 1.2 Excerpts from the Third Week of February Session

The session centers around exercises on comparisons and analogies, drawn from the philosophical guide.

- I At the end of our session last week, we exchanged on Mel's question, «When children hurt animals, is it the same as when animals hurt children?» So this week, we will pursue in this direction and work on similarities and differences (...) For example, can a string be compared to a hair, and why?  
 Mel Oh yes, because it's very, very long.  
 I Very well. Now, if I say «a bird's wing». What can we compare it to?  
 Ch To a feather.  
 I Why to a feather, Ch?  
 Ch Because wings have feathers and feathers are like (...) Feathers are like a bird.  
 I Do you all agree with Ch?  
 Chil. Yes! No!

- I Who doesn't agree? Mel.
- Mel Because we hadn't said it had to be the same shape and I don't find that it's the same shape. Instead of a bird's feather (...) it could also be (...) a rabbit's ear.
- Ch Of course not, a rabbit's ear is...
- Mel It's round.
- I Do you agree with Mel?
- Chil. No! Yes!
- AA I don't agree because a rabbit's ear doesn't have these little things (shows a jagged outline with his fingers).
- I Do you have another idea what a bird's wing could look like?
- AA Well...
- Mel I still don't agree with AA because sometimes wings can be round. It's not always the same kind of wing.
- Br I have an idea of something that looks like a bird's wing; it's a peacock's tail when it's wide open.
- I Br, why does a peacock's tail make you think of a bird's wing?
- Br Because a peacock's tail has little jagged ends like a bird's wing, it has the same shape.
- I Now, we have three possible answers: a feather, a rabbit's ear and a peacock's tail. Can we choose which one looks most like a bird's wing?
- Chil. A peacock's tail.
- I Why?
- Chil. Because it is jagged like a bird's wing.
- I Good. Now, what can we compare a lump of sugar to?
- AA To a box.
- I Can you explain why?
- AA Because it's square.
- Za A puzzle box is square.
- I Yes, you came back to AA's idea.
- W To a grocery cart.
- Mel I want to say something to W. I don't agree with you because the wheels, do they look like a lump of sugar? We have to find things that don't roll. Plus, the wheels are round. And look at the cart's grid.
- W The grid, it looks like the little dots on a lump of sugar.
- LS I agree with W.
- I Would you like to say why?
- PL Because the wheels aren't a good answer, but the cart is square.

### 1.3 Excerpts from the April 20 Session

After reading the *Chickenpox* tale, the teacher explains to the children how to generalize their comments to bring them to conceptualize. In parallel, she encourages both exchanges and criticisms among the children.

- Ch: I have a question. In the story, why did the child call his friend on the phone?
- I: O.K. We could ask the others. Why do children phone their friends?

(...)

Jus: Why did Audrey-Anne get chickenpox?

I: How could you generalize your question Jus?

Jus: I don't know.

I Can anyone in the classroom help Jus generalize his question?

Ca Why did the child catch chickenpox?

I Yes. Or: Why do children catch chickenpox? Or yet: Why do children get diseases?

I (...) How about if we now answer the question Jus asked, «Why do children get diseases?»

AA Because sometimes they don't get vaccinated.

Ch Because sometimes they go outside without a scarf.

A Maybe sometimes the body wants to control itself.

I What do you mean, A? Can you explain your idea?

A Well...how can I explain it? I'll try. Well when a kid doesn't want to control his body, it shows, and then the body wants to take control.

I Does it happen sometimes that your body does things you can't control?

M Sometimes it's because diseases are around and they go inside a person's body and it makes them sick.

Za Maybe when you eat too much candy.

I Last week, AA asked «Why is it that when you go to the hospital you catch other peoples' diseases?»

W The other day, I went to the emergency room at Ste-Justine Hospital and my mom told me you could catch diseases there, that's why you always have to wash your hands with special soap. I know why you catch diseases in hospitals, it's because people are sick and they drop germs around.

I On the blackboard, I am going to draw two circles that cross each other (Venn diagram). In the first circle, we will write actions that help your body heal, in the second circle, actions that harm your health, and in the center, actions that can either help or harm your health.

C h When you eat too much candy, it can make you sick.

AA If you eat lots of vegetables, it helps your body grow.

Mel Wearing gloves.

PL Gloves? Why gloves?

I Ask Mel.

Mel Gloves so you don't catch a disease in the hospital.

PL Gloves are also useful to keep you from hurting your hands with splinters when you work.

Br There's something else. In winter, you protect yourself with mittens.

I Can you name some actions that don't help your body heal?

Ca If you never eat, you can die.

A No, that's not true.

PL Poor people that never eat have no muscles.

Ca When you eat too much chocolate, it's not good for your health. (...) Also, if you never eat, you're going to die.

Al And if you eat too much chocolate you'll stay little.

Ca No, you'll become fat. You'll get a big tummy.



- PL That's because there's too much sugar in there.  
 Al Yes and not even any vitamins. There's some milk except that...you can drink some water or a bit of milk instead.

#### 1.4 Excerpts from the May 4 Session

After reading the tale *Vincent and the gang of older kids* in which Vincent, a kindergarten pupil, is surrounded and teased by third graders (8-9 years), the children ask the following questions and make the following statements:

- AA It's not nice when big kids tease smaller kids.  
 Ch Why were the older boys playing games to upset the children?  
 Za Why were they circling Vincent?  
 A I would change the question...  
 Ch ...Why do the older kids circle the children?  
 AA Why are the children playing with stones on the sidewalk?  
 I You generalized your question from the start. Well done!  
 PL What did she say? I didn't hear because she wasn't speaking very loud.  
 I You can look at AA and ask her.  
 PL What did you say AA? I didn't hear because you really weren't speaking very loud.  
 AA Well, I said, Why are the children playing with stones on the sidewalk?  
 PL O.K., now I understood.  
 Ch Why do the children's feet sink into the sidewalk?  
 PL That doesn't exist.  
 Ch Well, I had another one, but it was AA's question.  
 LS In the tale, why does it say: I know them, they're big kids from the third grade?  
 PL Yeah, you don't need to say «from the third grade». You could say first or second graders.  
 I Regarding the first question, «It's not nice for older kids to tease younger kids,» I would like to know «Why do big kids sometimes tease smaller kids?»  
 Ch Maybe its because they're big and they're not nice.  
 A Because they don't like younger kids.  
 I Does everyone agree with Ch and A?  
 Ju I don't agree.  
 I Why?  
 Ju Because they're his friends and they don't like him. That can't be.  
 A No they're not friends.  
 LS Yes they're friends because Vincent knows them.  
 A No. He knows them but they aren't friends. He only sees them, they don't play together.  
 AA I agree with Ch but not with A.  
 I Can you explain why?  
 AA What was it that A said?  
 A I said he only knows them. He often sees them, they told him their names and they don't play together. And now, they don't like Vincent.  
 AA They aren't his friends because they laughed at him.  
 A That means you agree with me.

### 1.5 Excerpts from the May 18 Session

During this week, the final philosophical session took place. «I», the teacher, suggests a role-playing activity in which Ch and AA draw, but they only have one crayon which they must share. Ch has the crayon in her hand when AA also wants to draw and asks for the crayon. Ch answers blah, blah, blah. After the role-playing, the children in the classroom who observed the role-playing take part in an exchange.

- Mel That's happened to me before. I wanted someone to share a crayon and the other person said blah, blah, blah.
- I And how did that make you feel?
- Mel I was upset and I didn't like it.
- I How did you solve your problem?
- Mel I told my babysitter, and she had some new crayons and she lent them to me.
- Za AA should have used another sheet of paper.
- Mel But with the crayons, what could you do?
- Za You could take another one.
- Ch It makes me sad.
- I When we're feeling sad, what can we do?
- W In karate, I learned something to make you calm. You kneel down and do this, and close your eyes and it calms you down.
- W You can say Stop that, or Please, stop that.
- Ch You say Stop that. And if he doesn't stop and just keeps on doing it, you say Stop that again and then if he still does it, you tell your mom.
- LS Or your teacher.
- A All you have to do is walk away from the person that says that.
- 
- I Let's do another game to think about our solutions. Here is the situation: Jojo doesn't like the candy her aunt gave her, but she eats it anyway because she doesn't want to disappoint her aunt. According to you, is this a good solution?
- Ca I think it's a good idea (...) because she won't be sad.
- I Does anyone agree or disagree with Ca?
- Mel I don't agree (...) I would take the candy and drop it in the garbage and say I finished the candy. (...) because I don't want to eat mints I don't like. (...) This way, she won't know I didn't eat them.
- I Do you agree with the ideas that were just said?
- LS I don't agree with Mel because if my aunt gave me some candy I don't like and I threw it away, when she throws something away, she will look in the garbage and see the candy and she would be angry with me.
- Mel If we put them way, way, way down in the bottom and put some stuff over them and then close the lid...
- LS I have another idea. All you have to do is tell your aunt «Could you change the candies?»
- AA Well, I would eat them even if I don't like them. If I really, really, don't like them, I'll give them back to my aunt without telling her I don't like them.
- I Why is it important for you to be truthful?

- AA Because if not, my mommy won't believe me anymore.  
 Z Well, I would eat a little bit.  
 I And what would you do with the rest?  
 Z I would give it away.  
 I Let's say Jojo tells her aunt she doesn't like the candy she gave her. How do you think her aunt will react?  
 AA She would feel bad inside.  
 I Why?  
 AA Well, maybe the candy was expensive (...) because she spent a lot of money for the candy.

### Notes

1. Jean-Marc Ferry, translator, is a specialist concerning Habermas.
2. This Research Project was realized under the direction of M.-F. Daniel, in collaboration with L. Lafortune, R. Pallascio, P. Mongeau, L. Splitter, C. Slade and T. de la Garza. A Social Sciences and Humanities Research Council (SSHRC) of Canada subsidy, from 1998 to 2001, made this possible.
3. Elsewhere, we have elaborated the learning process of critical thought, which is anchored in four thinking modes (logical, creative, responsible and metacognitive) that are subdivided according to three epistemological perspectives, which we named egocentricity, relativity, and intersubjectivity. *Egocentricity* presupposes that exchanges among pupils are of an anecdotal or monological type, and that their thought still needs concrete support in order to manifest itself. Furthermore, these pupils do not manage to justify their points of view, even when stimulated by the teacher. Criticism is non-existent in their exchanges. The second perspective is *relativity*, in which pupils manifest reflection, tolerance towards divergent peer points of view and willingness to understand. However, points of view are juxtaposed rather than evaluated, criticized or placed in a hierarchy. Thus the pupils find themselves, at the end of the exchange, with a collection of points of view or criteria, and are unable to choose the most adequate or the most relevant; they all seem equally relevant. The third perspective we named *intersubjectivity oriented towards meaning*. This is a complex perspective in which pupils' points of view are presented as hypotheses (vs. conclusions); pupils manifest doubt and open-mindedness, critical evaluation is continuous, and justifications are complete and spontaneously accompany points of view. The objective of so many socio-cognitive efforts on the pupils' part seems to be personal construction of meaning (Daniel et al., 2004).

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