The Incidence of Philosophy on Discursive and Language Competence in Four-Year-Old Pupils

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Can philosophical dialogue foster the developmental process of certain language and discursive capabilities, such as decentering and abstraction, in four-year old children? And if so, to what extent? In this paper, the authors examine discursive and language competence in a group of four-year-old children during a four-month philosophical praxis (experimental group), compared to that of a group of five-year-old children that experienced no philosophical praxis (control group). The analysis was conducted using two instruments: 1) for discursive competence, the typology of exchanges put forward by Daniel et al. (underlying criteria include the presence/absence of a common problem to solve, centering/decentering of thinking, complexity of interventions and cognitive skills, etc.) and 2) for language competence, the language markers that emerged from the transcripts ("I", "we", "he—particular", "they—general", "you") These two instruments contributed to situating the children's discourse within a process of increasing complexity related to decentering and abstraction. Results indicate that the children in the experimental group engaged in diversified exchanges (three types: anecdotal, monological, dialogical) with a predominance of the monological type and the use of language markers related to the general "they", while the children in the control group engaged in anecdotal exchanges with a predominant use of "I".

Keywords: Discursive and Language Competence, Childhood, Argumentative Discourse, Philosophical
Dialogue

In most societies, formal schooling begins at age six. One questions then whether children aged four are capable of developing a capacity to listen to their peers and to enter into dialogue with them, and whether they are capable of participating in a "philosophizing" process.

The Philosophy for Children Approach (P4C)

Educational methods intended to stimulate children to philosophize in the classroom have their theoretical foundations in the Philosophy for Children (P4C) approach conceived by pragmatist philosopher Matthew Lipman in the early 1970s (Lipman, 2003; Lipman et al., 1980). P4C is said to be "philosophical" in that it presupposes thinking concerning a shared problem based on peer collaboration, and attempts to attain inter-subjective and consensual truths (Daniel, 2005). Here, philosophizing is not a product, but a scaffolding process (Daniel & Gagnon, 2011; Queval, 2010) that is built through philosophical (or critical) dialogue among peers. This process is demanding in that it relies on skills related to decentering, abstraction, argumentation and negotiation. P4C springs from two traditions: Aristotelian logic—which became "applied logic" through the contribution of American pragmatists in the middle of the 20th century—and Socratic maïeutics that uses questioning to meet citizens' requirements for greater well-being and better ways to live together. In the Lipmanian sense then, philosophy is not understood from its traditional perspective (i.e.: an instrument of conservation for the history of ideas) but rather as a method for structuring the world in order to create a better future, that is, as an instrument of change and creation (Daniel & Auriac, 2009; Nussbaum, 2010; Rorty, 1989, 1999).

Lipman's program is intended for youngsters aged 6 to 15 years. Our contribution consisted in adapting the program to children five years of age (Daniel, 2002, 2003, 2009) to show how, even at this young age, children were able to participate actively in a dialogical semi-critical type of exchange with their peers (Daniel & Delsol, 2005, 2010). In France, a team of educators spurred by *Pomme d'Api*, a magazine for preschool-aged children, went one step further, experimenting with philosophical discussions in a group of four-year-old children (Pettier, 2008; Pettier & Dogliani, 2009; Pettier et al., 2010). In this text, the authors analyze an exchange[1] that took place between the four-year-old children in this group during a philosophy session after four months of *praxis*. The goal was to understand whether these exchanges could be considered to fall within a philosophizing process based on criteria of decentering and abstraction.

Discursive and Language Competence: At What Age Should They Be Fostered?

In a number of education programs, including Quebec's,

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[1]Each week, the pupils participated in a philosophy session that lasted one hour on average. By "exchange", we mean verbal activity that took place during one of these philosophy sessions.

discursive and language competence are considered fundamental to the child's development. Similarly, in school programs and instruction in France, language, identified as the heart of learning since 2002, was still considered the cornerstone of academic success in 2008 (Auriac & Maufrais, 2010).

The development of discourse and language has a positive impact not only on a pupil's learning, but also on structuring his identity, his thinking, and his socialization.

"Language contributes to forming concepts and ideas; it gives access to knowledge and comprehension. A primary tool in structuring and expressing thought, it plays a key role in the development of the pupil's world view and personal identity. It is also an instrument of liberation and power because it allows one to express thoughts and to influence those of others. In a democratic society, voicing an opinion is an act of citizenship and of participation in a collective way of life as well as an instrument of conflict resolution." (MELS, 2004: p. 72).

In general, formal learning of language does not begin before the age of five (MELS, 2006) or six (MEN, 2008) years. To adherents of traditional psychology, which thinks the intellecttual development of children occurs in stages, inspired by Piaget (Piaget & Inhelder, 1966) and by Kohlberg with regard to moral development (Moessinger, 1989), a preschool-aged child is limited in his language and social interactions, which are the basis for access to argumentation and dialogical discussions. Likewise, a child of four or five years is often presented as having "magical", "playful" or "magical-realistic" thoughts about the world (Lévine et al., 2004).

Conversely, social cognition researchers, influenced by the theses of Mead (1972), Vygotsky (1985) and Bruner (1983), have shown that the child is not a passive observer of the world that surrounds him, but that he is capable of participating in peer interactions and of negotiating with peers. When the child joins a social network, he puts into practice particular forms of interaction—generally those that he has learned at home—and manages to establish stable and permanent relationships with some of his peers (Denham et al., 1994; Dunn, 2004).

In this perspective, developmental psycholinguistic research (among others: Auriac, 2007; Bergeron et al., 2009; Golder, 1996) has shown that children involved in a stimulating social context begin, at around four years of age, to organize narratives without, however, being able to establish a stable order among the situations that they juxtapose. Internal coherence in the narrative occurs only around the ages of six or seven years. Verbal argumentative behaviors appear at an early age. At approximately four or five years, children use justifications by enumerating facts and they can decenter enough to formulate arguments that are understood by the interlocutor. They have a theory of mind, and are aware that others may have thoughts that differ from their own (Gauthier & Bradmetz, 2005; Pons & Harris, 2003; Pons et al., 2004). At approximately five or six years, children begin to integrate discursive rules (respect for taking turns speaking and adhering to the theme) (Florin, 1999). And at around eight or nine years, cooperative argumentation develops (decentering, common referent, reciprocity) (Florin, 1999; Golder, 1996).

Based on previous empirical studies, carried out with "philosophizings" among pupils aged five years (among others: Daniel & Delsol, 2005, 2010), the authors propose a few questions: Can dialogue within a community of inquiry, the very essence of P4C, foster the developmental process of certain language and discursive capabilities, such as decentering and abstraction, in children as young as age four? And if so, to what extent?

Methodology

Although numbers and percentages are used, the analysis is qualitative as it involves a case study (Laperrière, 1997; Savoie-Zajc, 2004; Van der Maren, 1996, 2006).

Participants

There were two groups of participants, each comprised of 26 kindergarten pupils from an underprivileged socioeconomic area in a Paris suburb. At the classroom level, it is important to mention that the teaching context in a Priority Education Zone (Z.E.P. in French), such as this, introduces social particularities, both from a pupil's perspective and with reference to teaching strategies (Bautier, 2008; Charlot, Bautier, & Rocheix, 1992; Bautier & Rayou, 2009). Research work, first conducted in secondary and then in elementary schools, has shown that pupils' enrolment in school varies mostly according to family background, and that pupils in a Z.E.P. have a "utilitarian" relationship with school. Pupils from the experimental group, aged four years, had been practicing the "philosophical dialogue" approach on a weekly basis for four months. Those from the control group, aged five years, had never experimented with the philosophical approach. For practical reasons, we were unable to gain access to a control group of children aged four years, so our control group (with no philosophical experience) was comprised of children from the same socioeconomic background (Z.E.P.) but aged five years.

Both groups were invited by their respective teachers to reflect upon and exchange on the theme of love; in February for the experimental group and in June for the control group. Both of the exchanges analyzed were recorded using a video camera[3]. The recordings were transcribed integrally, verbatim, by a third party.

Instruments

Two data collection instruments were used. The first instrument was based on the typology of exchanges from Daniel et al. (2002, 2005). An analysis of each child's intervention[4] was conducted, comparing it to those of the child's peers, in order to verify whether it was related to them or not. If the intervention was not related to the interventions of peers or to previous interventions, it could be considered either an anecdotal or monological type of sequence[5]. If the intervention was related to those of peers or to previous interventions, the sequence could be understood as dialogical (non critical dialogical, semi-critical dialogical or critical dialogical). The criteria inherent in each

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[2]Translated.

[3]The exchange in the experimental classroom was recorded by the team that filmed the documentary "*Ce n'est qu'un début*" (2010), Cilvy Aupin, Jean-Pierre Pozzi, Pierre Barougier, and Jonathan Martinot. We thank them for allowing us to use it.

[4]The authors considered an "intervention" to be any statement (sentence or group of words) that mobilized language activities that went beyond simple single-word answers (i.e.: "yes", "no", etc.).

[5]A sequence is a group of interventions of the same type.

type of exchange, which are presented in the following section, served as reference points for the analysis.

The second instrument examined the use of language markers (Auriac, 2007, 2008; Auriac-Peyronnet & Daniel, 2002). First, the pronouns used during the children's exchanges in both the experimental and control groups were extracted. These language markers were then organized on a continuum that reflected progress according to two criteria: decentering and abstraction. Finally, based on this continuum (i.e.: from centering to decentering and from concrete/particular to abstract/general), the increasing complexity of language was analyzed in both groups of children.

Description of the First Instrument: The Typology of Exchanges

This analysis was based on previous research results with pupils aged 10 to 12 years, in which dialogue was shown to be a process that developed within a philosophical *praxis* according to five types of exchanges: anecdotal, monological, non-critical dialogical, semi-critical dialogical and critical dialogical (Daniel et al., 2002, 2005). The following definitions underlie the criteria that were used for this analysis.

An exchange is said to be anecdotal when pupils speak in an unstructured manner about particular and personal situations. Pupils are not engaged in a research process, do not have a common goal and are little or not at all influenced by peer interventions. Thinking skills are simple and come down to verbalizing of beliefs or perceptions.

An exchange is deemed to be monological when the pupils participate in a research process that is essentially oriented toward searching for "the" correct answer, which is intended to satisfy the teacher (or to demonstrate one's value to one's peers) rather than contributing to advancing the group's perspective. Each pupil's intervention, generally simple and descriptive, is independent from those of others.

An exchange is said to be dialogical when pupils explore together various avenues to discover and construct knowledge, meaning or representations. They form a "community of inquiry", by elaborating on their perspectives with the help of their peers. They construct a general (vs. specific) and conceptual or abstract (vs. concrete) reflection, and are motivated by a shared problem to be solved. There is a dialogical exchange when there is an interlocutory sequence of statements (Trognon, 1999) that results in an increasing complexity of viewpoints. A dialogical exchange is not *a priori* critical; it may be non-critical, semi-critical or critical.

An exchange is said to be non-critical dialogical when pupils are involved in a co-construction of knowledge or meaning, and respect differences of opinion. However, pupils do not see the relevance of evaluating peer points of view, or the validity and viability of the criteria or premises at issue. In this type of exchange, thinking skills become increasingly complex: justifying points of view, questioning, making analogies, etc.

An exchange is semi-critical dialogical when, in a context of interdependence, some pupils are sufficiently critical to call into question the statements of their peers. However, the latter are not sufficiently open to criticism to be cognitively influenced by the process. As a result, criticism is not used to modify or reorganize the initial perspective.

A critical dialogical exchange is characterized by reciprocity, openness to divergence and inter-subjectivity; it is complex and shows progression. Pupils not only reorganize the initial and justified group perspective, they also modify it using negotiation or compromise. They consider others as bearers of divergences, and see them as necessary to enrich their own perspectives. On the epistemological level, doubt and uncertainty are accepted as part of any significant exchange. Peer criticism is sought after in itself; it is understood as an instrument of advancement in the comprehension of a problem. Critical dialogue is not rhetorical argumentation concerning an already-constructed point of view, nor is it a debate about competing theses; it is an inquiry within a community with a view to the Common Good.

Although each type of exchange is characterized by its own list of criteria, the general typology becomes more complex based on two main criteria: decentering and abstraction.

Results

Results in Relation to the Typology of Exchanges in the Experimental Group

The analysis brought to light four types of exchanges in the experimental group: anecdotal, monological, non-critical dialogical and semi-critical dialogical. The exchanges were divided into sequences each of which belonged to a single specific type.

The number of sequences corresponding to each type of exchange, as well as the total number of interventions of each type, then enabled us to determine what characterized a particular exchange (see Table 1). The anecdotal and monological types emerged on five occasions each; the semi-critical dialogical type came into play on four occasions; the non-critical dialogical type was noted on two occasions. No sequences corresponding to the critical dialogical type emerged in the analysis.

The 5 anecdotal sequences consisted of a total of 17 interventions; the 5 monological sequences consisted of a total of 27 interventions; the 2 non-critical dialogical sequences consisted of 13 interventions; and the 4 semi-critical dialogical sequences consisted of 20 interventions. Thus, comparing the number of sequences and interventions, it can be said that the monological type of exchange predominated in this philosophical session.

Illustrations and comments on each type of exchange conducted by the children are presented in the following paragraphs.

In the example of an anecdotal sequence (below), the authors note that despite the teacher's general question, the answer is centered on a particular experience; the thinking skills are simple and concrete (stating various situations); the answer is not directly related to the question posed.

Teacher: *And when we're older*, *we no longer love* [*interrogative tone of voice*]

*M*20: *My grandmother in Algeria sees me often*, *ok* [*interrogative tone of voice*]/*and she doesn't get married* (...) *I tell you that in Algeria I have my grandma and my grandpa I went to see him often with my dad and my mom with my 4x4 we went/they were already married before I was born because when I wasn't born my mom and dad had gone to the swimming pool and then when I wasn't born I wasn't with mom and dad.*

In the following example of a monological sequence, the children's interventions: are directly related to the question posed; they are answers intended for the teacher; they are independent from each other; they presuppose a reflection that is

Table 1.
Types of exchanges: *number of sequences and interventions.*

Type of exchange	Anecdotal	Monological	Non-critical dialogical	Semi-critical dialogical	Critical dialogical
Number of sequences	5	5	2	4	0
Total # of interventions	17	27	13	20	0

slightly decentered from the particular experience of self and they show the first signs of conceptualization.

Teacher: (...) *so what does doing philosophy mean* [*interrogative tone of voice*]

*M*01: *We can we can we aren't supposed to cut someone off when the children are speaking.*

*F*02: *Thinking.*

*F*19: *We are going to think.*

*M*01: *We are going to speak.*

*M*01: *We have to listen.*

*M*05: *We will learn to ask ourselves questions.*

The following example illustrates a dialogical sequence since it is centered on solving a problem and initiating a pooling of thoughts. The starting point for the research process is situated in the divergence of viewpoints and in doubts (F22: *You mean that two girls are in love*). To solve it, the children mobilize cognitive skills linked to logical (conceptualization), creative (analogizing) and responsible thinking (observing social conventions). This dialogical sequence is considered non-critical because it shows "continuity" within the ideas (it does not show any break of thought) and evolves thanks to cooperation and mutual aid. On one hand, F01 and M01 give reasons for helping F22 justify her position (*a girl has to be in love with a boy*; *that's the code*), and on the other hand, defining this code occurs through two children: M05 makes an analogy with the driving code, which leads F01 to the term "love code". Although the dialogical is in itself a relatively complex form of exchange, the content of this particular sequence is simple because the number of interventions is limited, the interventions are brief and not (individually) justified, and the positions remain dogmatic from beginning to end.

*M*01: *Because a girl can be in love and a boy is not in love/it's just girls that are in love with with with another girl.*

*F*22: *You mean that two girls are in love* [*interrogative tone of voice*].

Teacher: *Wait F*22 *can you say that again* [*interrogative tone of voice*]

*F*22: *He means two girls who are in love.*

Teacher: *Is it possible or not possible* [*interrogative tone of voice*]

*F*22: *It's not possible*

Teacher: *Why* [*interrogative tone of voice*]

*F*01: *Because you have to be in love with a boy.*

*M*01: *It's the code.*

Teacher: *What is the code* [*interrogative tone of voice*]

*M*05: *It's like the driving code.*

Teacher: *What is that code* [*interrogative tone of voice*]

*F*01: *It's the love code.*

The following example was interpreted as semi-critical dialogical, even though the sequence included a limited number of interventions, leading to argumentation being voiced without being developed and leading to an error in logic (M05 uses a concrete example to illustrate and even to validate a generalize-

tion). Nevertheless, the sequence is considered a (rudimentary) semi-critical dialogical exchange for the following reasons: there is an assertion of diverging points of view between two pupils (M05 and M12); interdependence between interventions (of M01, M05, F01 and M12); the interventions are centered on a common problem that rises above what is personal/particular; and the interventions are more elaborate than those in monological and non-critical dialogical exchanges. Children mobilize thinking skills that are related to logical thinking (justification of viewpoints), creative thinking (counter-examples), and responsible thinking (search for consequences tied to social conventions and pleasing parents).

*M*01: *Because daddies are in love with mommies/and after they are always in love because they are married* (...)

*M*05: *If we aren't married we're still we're in love/well my mommy isn't married she's in love with daddy eh* [*interrogative tone of voice*].

Teacher: *Is it good or not good to be in love* [*interrogative tone of voice*]

*F*01: *It's good* (...) *because some people are married and after they are happy.*

*M*12: *It's not good to get married* (...) *because you shouldn't always get married* (...) *you shouldn't always get married because you have to do it once and after when you aren't married all the time well you come back and get married.*

In conclusion, this first part of the analysis brought to light, among a variety of types of exchanges, a predominance of monological exchanges associated with a trace of semi-critical dialogue. The children's discursive skills were simple, but their discourses were situated within a movement of decentering and abstraction. These discourses thus indicate that the children were beginning to philosophize.

To validate the results obtained using the first instrument in relation to the decentering and abstraction criteria, the transcript was re-analyzed using a second, more specific and quantifiable instrument: language markers.

Second Instrument: The Use of Pronouns

Before proceeding with the analysis of pronouns as language markers, the authors had to understand their meaning in order to position them on a continuum. For the sake of consistency and homogeneity, our complexity criteria remained the same as in the typology of exchanges: decentering and abstraction.

Analysis of the two transcripts (experimental and control group) brought to light the use of five pronouns by the children. These were positioned from the most simple (concrete and self-centered) to the most complex (abstract and decentered) (see Table 2).

Three markers indicate concreteness and centering: the use of "I" expresses centering on self and the child's concrete and personal experience (*I like Nutella*). The use of "we" means the statement finds its relevance outside of simple personal experi-

Table 2.
Emergent language markers.

Marker	I	We/we must	He (specific)	They (generalized) and concepts	You
Example	I like Nutella	In philosophy we learn to ask questions; We must love everyone	My friend Jonas he wears perfume	Parents they love their children; Being in love means…	Do you mean …?
Increasing Complexity	Simple	Simple	Simple	Complex	Complex

ence; it implies another person or persons while including one-self (*in philosophy we learn to ask questions*) and also implies the moral rule that has been learned (*we must love everyone*). Use of the "specific he" is slightly decentered since it refers to another person. However, this person belongs to the child's immediate circle: in our transcript, the "specific he" was associated with a possessive "my" (*My friend Jonas he wears perfume*; *my grandmother she lives in Algeria*).

Two markers indicate decentering and abstraction: A "generalized they" is considered to be a complex pronoun that marks decentering because it implies categories of people (*parents they love their children*)[6], to which is added conceptual statements or statements without pronominal referent (*being in love means…*). Finally, "you" expresses interest in another person as a different being (*do you mean that…?*).

Results Relating to the Use of Pronouns in the Experimental Group

In the experimental group's transcript, there were a total of 91 interventions as follows (see Table 3): 12 interventions used "I", 24 interventions used "we"/"we must", 17 interventions used "specific he", 31 interventions used "generalized they" or conceptual statements, and 7 interventions used the "you" form.

Percentage analysis shows that the predominant markers were the generalized "they" or conceptual statements (34%), followed by "we" (26%). The presence of the "you" marker merits mention, although its presence was minimal (8%).

In relation to the process of decentering and abstraction, it emerges that although the children's reflections were rooted in specific and personal experience (57% of interventions), they began to decenter and take part (42% of interventions) in the relativism of others.

In summary, the results of the analysis, completed first from the discursive and then from the language perspective, indicate that the children in the experimental group exchanged in a diversified manner (anecdotal, monological, dialogical) with a predominance of monological exchanges. Also, the language markers used extended across the continuum, but with a predominance of "generalized they" and conceptual statements. These results also lead us to argue that the children took part in the philosophizing process.

Now, do these results reflect the discursive and language realities of children aged five years (the control group)?

Control Group: Results Relative to the Typology of Exchanges

Following are the results of the analysis of the control group

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[6]Also marginal use of a generalized "we" (*a divorce is when we leave each other*) was noted. It was considered to be in the same category as a "generalized they" (rather than as a "we" referring to other and self).

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using the same two measurement instruments: the typology of exchanges and language markers.

With regard to the children's discursive competence, the results indicate a predominance of anecdotal exchanges (see Table 4). Three monological sequences were identified. No excerpts displayed dialogical types of exchanges (non-critical, semi-critical or critical). The anecdotal sequences included a total of 41 interventions; the three monological sequences totaled 9 interventions.

Following are some examples of types of anecdotal exchanges identified in the control group's transcript. The first illustrates a simple anecdotal sequence that includes concrete statements that are centered on each person's specific tastes: her little brother, Nutella, horses.

*F*01: *No but still I do like my little brother* (…).
*M*07: *I love Nutella* (…).
*F*05: *I like horses.*

The second excerpt illustrates a sequence that we might be tempted to consider as dialogical since F06 and M09 listen to each other and answer each other. However, the sequence remains on an anecdotal level in that the interventions are not oriented toward solving a "common problem" because they refer to M09's particular behaviour.

Teacher: *Are you still in love with M*09 [*interrogative tone of voice*] *and how do you know you are in love with M*09 [*interrogative tone of voice*] (…)
*F*07: *Because he is good looking* (…)
*M*09: *Because I wore perfume the first time.*
Teacher: *Because the first time you wore perfume* [*interrogative tone of voice*] *And that is why they are in love with you* [*interrogative tone of voice*] *Is that true girls* [*interrogative tone of voice*]
*F*06: *But actually they didn't smell the perfume/in fact*, *he wore perfume to attract the girls.*
*M*09: *I put perfume on because I wanted to play with my friends that's all.*
*F*06: *At the beginning he told me that*, *he told me that it was to attract the girls and I laughed.*
*M*10: *And now she is in love with me she is always kissing me.*

Finally, the third excerpt illustrates a sequence of a monological type in that the statements are conceptual and are juxtaposed in the discursive sequence.

Teacher: *What does a boyfriend mean* [*interrogative tone of voice*]
*M*06: *It means a boyfriend who likes another.*
*F*05: *A boyfriend is a sweetheart.*

Results Relative to the Use of Pronouns in the Control Group

The second analysis of the control group's transcript was

Table 3.
Numbers and percentages of language markers. Experimental group.

Markers	I	We/we must	He (specific)	They (generalized) and concepts	You
Number of interventions	12	24	17	31	7
Percentage	13%	26%	18%	34%	8%
Percentage of decentering and abstraction		57%		42%	

Table 4.
Types of exchanges: *Number of sequences and interventions. Control group.*

Type of exchange	Anecdotal	Monological	Non-critical Dialogical	Semi-critical Dialogical	Critical Dialogical
Number of sequences	Entire transcript	3	0	0	0
Total # of interventions	41	9	0	0	0

conducted based on language markers. Results indicated a total of 50 interventions[7] (see Table 5): 18 interventions used "I", 6 interventions used "we", 16 used "specific he", 10 used "generalized they" or concepts, and none used the "you" form.

Percentage analysis shows that the predominant marker was "I" (36%), followed by "specific he" (32%).

In relation to the process of decentering and abstraction, it emerges that the children's interventions are in large part (80% percent) personal and specific. Conceptual statements and interest in others is displayed in 20% of interventions.

In summary, the exchange in the control group is rooted in the anecdotal, based on the use of language markers that are personal/specific (80%), with a predominant use of "I".

Discussion

Results show a greater variety in the types of exchanges in the experimental group, and a more balanced use of pronouns on our continuum—and this in spite of the developmental gap between the groups of pupils (four years of age vs. five years of age). These results indicate that the practice of philosophical dialogue affects these capabilities as early as age four (experimental group)—effects that are likely to stimulate young children to use underlying cognitive strategies that are currently scarcely suspected in traditional psychology. If we move away from Piaget's traditional model of development in stages, what is the progression of these young kindergarten pupils, in a Z.E.P. context, with regard to the discursive and language competence being studied? In this section we examine the context for both groups of pupils (specifics of kindergarten classes, teaching conditions in a Z.E.P., characteristics of the philosophical discussion group). We then present our results.

The Kindergarten Class

The experimental group was comprised of middle-section kindergarten pupils. At this level, the activities usually suggested to the children are closely related to daily life, and are often determined by a concrete project with a short-term goal. For

example, they are asked to complete a book cover for Moms and Dads. To make this cover, they must color it without coloring outside the lines. On the other hand, philosophical activity requires an abstract orientation: one must reflect, think, question. Apparently this abstraction did not pose a problem for pupils aged 4 years.

The Underprivileged Conditions in a Z.E.P

Usually, in a Z.E.P. context, the pupils' motivation to a discipline is related to its practical and immediate application. The problem is reinforced by teachers who, in trying to interest pupils who have difficulties at school or who come from socially underprivileged backgrounds, unconsciously accentuate the utilitarian relationship to school. In the experimental group, however, the activity was explicitly recognized as an abstract discipline—philosophy—and was appreciated as such.

The Philosophical Discussion Group

Despite its philosophical nature, the session was not perceived by pupils as useless. For example, the children's involvement in the exchanges was clear in that their spoken words expressed concrete and assumed positions that reflected their dialogical relationship to others. To children, "speaking" means "doing" something (Austin, 1991); it is engaging in a serious activity. If, as maintained by the pragmatists (Dewey, 1925; Lipman, 2003; Rorty, 1989, 1999), thinking is useful, we understand in reading the children's interventions that this usefulness is not necessarily to be understood as immediately identifiable. Indeed, we note that the teacher did not ask the pupils if they were in love, or with whom they were in love. She fostered a more abstract practice of discourse in speaking of love.

Beyond Piaget's Model

One might expect that, faced with the theme of love, each child would essentially mobilize his own experience (Piaget's egocentricity) expressed as specific anecdotes. One might imagine the child describing love using expressions such as: "*I am in love with...*", each child superimposing his own personal experience onto the experiences of his peers, with no other link than thought association. Inspired by Kohlberg's interpretation of the development of moral judgment in children, one might

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[7]Many of the children's answers to the teacher's questions were formulated in a single word or few words (yes, no, etc.). These were not considered to be interventions in our analysis.

Table 5.
Language markers. Control group.

Markers	I	We/we must	He (specific)	They (generalized) or concepts	You
Number of interventions	18	6	16	10	0
Percentage	36%	12%	32%	20%	0%
Percentage of decentering and abstraction		80%		20%	

expect reflection guided by the "fear of punishment" principle, expressing itself through approval-seeking answers to the teacher's questions instead of reasoning intended for peers.

Analysis of the experimental group's transcript shows that development is not that linear. Although 13% of interventions were directly stated using "I" and more than a quarter used "we" (which implies adding others to self as well as compliance with socially-induced rules), nevertheless 8% of the interventions used the "you", manifesting a consideration for or an attention to the words of peers. In this sample, this foothold in the use of "you" distinguished the experimental group from the control group. Although the children's interventions identified persons very close to them (i.e.: family and schoolmates) and although resorting to concrete examples seemed intended to support or validate a generalization, a use of the "generalized they" ("*daddies they are in love with mommies*", not "*my daddy, he is in love with my mommy*") was observed. The beginning of generalization and abstraction, noted in several interventions, indicates that some children may have temporarily transcended an egocentric position, displaying in their words a pre-relativism usually attributed to children aged 8 to 9 years (Daniel et al., 2005).

Furthermore, analyses brought to light a variety of types of exchanges in the experimental group, from the anecdotal (spontaneous narratives of personal and particular experiences) to the dialogical critical (shared problem to be solved using divergent points of view) with roots in the monological (reflection slightly decentered and independent from that of peers). If the narrative is set up around age four years (and continues approximately until pre-adolescence), the monological exchange is unexpected prior to age five or six in that it requires a *praxis* that enables the child to disregard his own perceptions in order to interpret and produce inferences that are connected to, but also slightly distinct from, the theme being discussed. This is unusual in that dialogic cooperation in kindergarten is expected to be in keeping with the theme (Golder, 1996; Florin, 1999). As to the manifestation, although rudimentary, of four brief sequences of semi-critical dialogical exchange, this is situated far ahead of the complexity continuum expected at this age. Attaining this type of exchange, even sporadically, implies a complex language conduct of sharing and evaluating knowledge or meanings; it requires thinking skills and attitudes such as: doubting, questioning, justifying, and stating a divergent position. The results tend to indicate that these complex skills, usually associated with adolescence, when occasionally manifested by young pupils may reveal unsuspected cognitive strategies (Daniel & Gagnon, 2011). It should be noted that the semi-critical dialogical exchange does not require capabilities relating to negotiation. The latter is manifested only in critical dialogical exchanges, and this type of exchange was not observed in the experimental group's transcript.

The thinking mobilized during the exchanges is also situated beyond the classical Piaget definition in that it was characterized not only by closure but also by openness. Closure was expressed by thinking which did not yet consider nuanced positions, which opposed clear-cut opinions without justification, and which instantly and definitively represented experience, the world, and people. Openness was present in questionings, in doubting ("*maybe*"), in traces of justifications to explain the reasons behind their position to others, as well as in reasoning that differs from "ready-made", "magical", "playful" or "magical-realistic" thoughts. The exchanges were characterized by coherence with regard to the question, by involvement in the beginnings of a problem-solving process, and by some children's concern for preciseness when attempting to clarify words or situations.

The case study that was conducted showed the limits inherent in this methodology. Our results have yet to be validated in other groups of children aged four years, within larger samp-lings or with control groups of the same age. It would be interesting for psycholinguists to study specific elements in the construction of discourse: re-use, reformulation, addition, order of arguments, diversity or redundancy of justifications, validity of statements or of the biases they contain, lexicological preciseness, etc.

Conclusion

The two continuums on which our analyses were based, relating to the types of exchanges and to language markers, enabled us to observe a process of increasing complexity in the children's discourses as early as four years of age. Indeed, the transition from "I" to "they", then to "you", as well as the transition from anecdotal narration to monological conversation then to dialogue, implies the mobilization of complex thinking capabilities linked to decentering and abstraction.

The results indicate that these two capabilities, contrary to what Piaget stated, can be mobilized, albeit in a rudimentary and non-systematic manner, by children who participate in philosophy sessions as early as four years of age. The analysis of exchanges in the control group shows that these two capabilities were not directly mobilized by children aged five years who were from the same underprivileged socio-economic background but who did not have the benefit of philosophical *praxis*.

Given the gap in the results regarding the predominant types of exchanges (monological for the experimental group and anecdotal for the control group) and the language markers used (simple and complex for the experimental group and simple for the control group), the authors maintain, in line with the works of Mead, Vygotsky and Bruner and the theses of social cognition and developmental psycholinguistics, that children four

years of age are capable of productive involvement in discursive social activities. Precisely because these dialogical activities require a certain decentering, they encourage young pupils to practice exchanges of a dialogical, and even of a semi-critical dialogical, type. These activities allow them to participate cognitively and linguistically in the meaningful context of a "philosophical community of inquiry" constructing and pursuing a common problem defined by the pupils with regard to their knowledge of the world.

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