Collaborative Inquiry Research into Children's Philosophical Reasoning

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AUTHORS' NOTE: This is an account of our experiences researching "children's philosophical reasoning": situating our research question, getting started, developing our methodology, encountering the unexpected, and researching recursively in writing. We tell our research-story from the points of view of two researchers. Judy, a practising Philosophy for Children teacher (Elementary), gives graduate-level teacher-education courses in Philosophy for Children and is now working on her Ph.D. Michael, a community-based educator and a graduate-level university lecturer in Philosophy of Education, was doing his M.A. when this research began and he too is now working on his Ph.D. In what follows, we tell how a way of "doing philosophy" became a way of "doing research," and vice versa.

"Kids say the darndest things!" and "Aren't they cute!" are common responses when adults are amazed at things children say. To respond in this way, however, is all too often not to take children seriously enough. It is rather to see children to be imitating adults, to be acting "grown up" well before their time. It is not surprising, therefore, that the very idea of children doing philosophy would be considered to be unlikely.

"Oh stop being so philosophical!" Or, "All this philosophy is fine, but let's get down to practical matters." References such as these among adults in everyday language relegate philosophy itself to ivory towers. It is hardly surprising then, that adults would question the value of engaging children in such apparently esoteric activity.

The idea that children might be able to do philosophy is not necessarily well received by philosophers either. Some may even feel offended at the very idea that "philosophy" might be "kids' stuff." It is as if philosophy is for adult students and academics and not at all for children.

This research had its genesis in the everyday classroom experience of two teachers in two Montreal elementary schools. In their Philosophy for Children[1] classes, they had gained a strong sense that the philosophical reasoning of their students was much richer and much more complex than adults might expect. Drawing from their knowledge and everyday practice with children, these teachers wanted to characterize, through empirical research, the richness of the complex reasoning which they recognized to be happening in their classes.

These two teachers came together and, with two university educators, formed a research group. On the basis of the elementary teachers' experience-based intuitions and on the basis of a feasibility study one of them had done earlier (Kyle, 1985), they wondered whether the results of multiple-choice written tests such as the New

Jersey Test of Reasoning Skills[2] could adequately represent the scope of the philosophical reasoning that children demonstrate in their Philosophy for Children class discussions.

> *Analysis of the results in this study taken together with a more subjective familiarity with the children's characteristic performances in oral class discussions suggests a further distinction which ought to be taken into account. A discernible discrepancy exists in the cases of a number of children whose test scores either remained the same or decreased such that their performance on the pencil and paper test is clearly inferior to their reasoning ability as demonstrated in dynamic class discussions. This suggests that the reasoning skills demonstrated in a pencil and paper reasoning test may only shed light on one aspect of children's reasoning abilities. Instruments to study the same children in the dynamic oral setting are also needed in order to provide a more complete assessment of their reasoning ability.* (Kyle, 1985, p. 11)

To these two teachers, there seemed to be more going on in their in-class discussions than these test results indicated. They wondered whether they could do research which would do justice to both the agility of the reasoning and the philosophical acumen demonstrated by many of their elementary school students.

RESEARCHING

When it began in 1987, the McGill Research Group on Children's Philosophical Reasoning (MRG) consisted of four philosophically-trained researchers: two practising IAPC-trained Philosophy for Children educators;[3] one graduate student/lecturer in Philosophy of Education; and one Philosophy of Education professor in the Faculty of Education of McGill University.

In the first year of the project, Elizabeth Therrien-Scanlan was doing philosophy with children in grades one to six in a co-educational and progressive private school.[4] Elizabeth was the philosophy teacher of all the grade three and four students in the study from her school.

Judy Kyle had been doing philosophy with children since 1981 in multiple classes of grades one to six in a French Immersion public school.[5] Although Judy was not teaching any students who were participating in the study, she had trained the two teachers who were.

Graduate student Michael Chervin, active in community-based education, was teaching both in local high schools (the prevention of sexual assault) and the McGill Faculty of Education (Philosophy of Education). Michael worked with the research students in both elementary schools in the capacity of observer and interviewer.

Stanley Nemiroff, Chair of the Department of Religion and Philosophy in Education, assumed many of the administrative tasks associated with the project. Stanley's only contact with the research students was through audio tapes of their interviews.

From their differing perspectives, all four researchers made theoretical contributions to the development of the research method. In addition, Vivian Wiseman, a research assistant who was trained especially for this research, collected data during the second data-collection period.

CHILDREN'S PHILOSOPHICAL REASONING

This study is inspired by a conviction that philosophy is something children can do. How, though, to research children's philosophical reasoning?

In the search for a way to characterize "children's philosophical reasoning", the MRG chose to look at children engaged in the IAPC Philosophy for Children program.[6] This program was chosen as a context for the research because the students would be more likely to demonstrate philosophical reasoning and inquiry within a program the purpose of which is to develop such competence. As well, these were schools in which both the children and their parents would be amenable to accepting the implementation of our project given their on-going involvement with Philosophy for Children.

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In Part 1 ("Collaborative Inquiry as a Research Method"), we describe the functioning of the research group in terms of collaborative inquiry. In Part 2 ("The Research Description"), we tell about the research students and the data-

gathering instruments. In Part 3 ("Towards Characterizing Children's Philosophical Reasoning"), we describe our preliminary findings in relation to our recursive research process. Finally, in Part 4 ("Reflections on Researching Children's Philosophical Reasoning"), we reflect on our research process from the inside out.

1. COLLABORATIVE INQUIRY AS A RESEARCH METHOD

Any research process is to research as sap is to a tree. All too often, however, we see only the outer bark, as if research "just happens" — independently of researchers, their social contexts, intentions, dilemmas and choices. Methodology then becomes constrained within its own rules and outside of human intervention. These rules, however, folds in the hard outer layer of bark (as if outside of time itself) were once supple, tentative and changing.

1.1 Methodology Transformations

Taking methodological rules to be the "outer bark," we wondered the following: What would writing about research into children's philosophical reasoning look like if it were to reveal the "supple, tentative and changing" activity beneath the surface?

First steps

In response to the concern articulated in the Kyle (1985) study as cited above, we chose to use three types of data-gathering instruments: multiple-choice written tests, an interview protocol and an observation checklist. The latter two were instruments we chose to develop ourselves in order to collect data which would contribute to a more complete picture of children's philosophical reasoning.

Interview protocol. We used the interview protocol to examine children's philosophical reasoning related to their responses to selected multiple-choice test questions. When we designed this interview protocol, it was our explicit intention not to include pre-determined categories of reasoning so that the data collected would enable us to explore children's reasoning in an open-ended way.

Observation checklist. We also sought to characterize the children's philosophical reasoning as it took place in their in-class discussions. Thus we developed the in-class observation checklist in order to record different types of philosophical reasoning demonstrated, while simultaneously noting down, as much as possible, verbatim accounts of the children's reasoning. These accounts were to be used both to substantiate "ticked" categories and to provide an additional source of data to be explored in an open-ended manner.

By gathering two equivalent sets of data (separated by a year) we hoped to be able to gain a sense of changes in the children's philosophical reasoning: where they had started and where they were after one year. We were not interested in evaluating the impact of implementing Philosophy for Children; rather, we were gathering data to construct "profiles" of the children's philosophical reasoning. We thought it would be important to trace whether and how those profiles changed after a period of a year. We had no need for "control groups" since it was not one of our research aims to see "what difference" Philosophy for Children, the program, made to the children's philosophical reasoning.

Funding Practicalities

As we met to develop and implement our research protocols and instruments, we came to realize that the amount of time the research was taking was substantial and this raised questions of funding for us. Of the four researchers, only one, Stanley, received a salary for MRG work by virtue of the inclusion of "research" in his 'university professor' job description. As a graduate student, Michael received a minimal assistantship from the university department for his research work, but this source of money was very limited and quickly depleted. Both school teachers were receiving no funding assistance for their part in the research; research meetings were held outside of school time.

In search of funding, we made a successful application to a local school board and received a small lump sum to cover some initial research expenses.[7] Meanwhile, there was pressure from the university to make our research fully self-financing and "legitimate" by acquiring a grant from research funding agencies outside of the university. These pressures took the form of de-

partmental annual reports to show evidence of research grants (the "real" sign to the university that research was being done). Faculty departments were being pressured to "finance" their graduate students through "outside" research grants obtained by staff as opposed to university-funded assistantships. Having a research grant meant prestige for the staff member(s) who obtained it and it meant "recognized" research experience and a higher income for graduate students hired on such a grant. The MRG decided to apply to major "outside" sources of research funding and, as an interim move, to apply for "bridging funds" from a university committee.

Transformations

This practical situation of applying for more significant research funds had an impact on our research by forcing us to articulate in writing the aims and means of our research in explicit detail. We soon realized, however, that our research process was the reverse of normal procedure. Whereas the normal course of action is to begin research once funding is received on the basis of a project already written "up", in our case we had already begun research which we considered to be important and only then began writing "down", in more specific form, the aims and means of our research-in-process.[8]

Be that as it may, in applying for funding, we encountered institutional pressures to "write up" our research in the sense of entering them into the pre-determined organizational process of the university as opposed to "writing down" what we had actually planned to do. The "bridging funds" committee did not accept our application and the refusal was accompanied by the demand for a precise statement of the research hypothesis, an accompanying method for testing it, and a justification of the research instruments used. A note inviting us to apply again was appended. After a thorough re-conceptualization of our project, we revised our proposal and re-applied, this time with a sparkling hypothesis, a carefully articulated method with which to test it and a detailed justification of our instruments.

During that process, however, rather than becoming more involved in the research, we found that our enthusiasm was waning; our vision, rather than being sharpened was actually being dulled. What was happening to us and to our research? We had spent a great deal of time developing and polishing our new research proposal. While we recognized that everything we were doing in this revised proposal would be deemed to be "right" by institutional criteria, we came to recognize (and eventually to name) that something was very wrong.

As researchers, we were experiencing a malaise, one attributable to the growing distance between our most recent proposal and our shared vision as to what would ultimately benefit the research students, ourselves as researchers, and our research. Although we had not yet named our research method in terms of collaborative inquiry, we can see now that it was a way of researching that had begun to evolve through our acknowledging and coming to terms with this very malaise.

Forced (by funding rules) to become a "team", we found that our research was taking the form of a "game plan." In practical terms, we found ourselves defining the aims of our research in relation to a preoccupation with scoring points through the goal posts placed by university and other major research funding agencies.

Our spirits and intellectual passions for the research were waning because our research seemed destined instead to serve institutional interests. Our preliminary research results had directed us towards innovative, qualitative and exploratory methods in a way that we felt would truly benefit our research. That excited us. However, we were seeing our own priorities (determined on the basis of in-depth data analysis discussions) recede to the sidelines, repeatedly whistled down by authoritative referees.

Discussing and analyzing this practical situation, we managed to transform the research "team" (playing a "game") into a research "group" (engaging in collaborative inquiry). It became apparent to us that dutifully carrying the ball simply left us not only bereft of creative energy, but subject to game rules over which we had little say. After a number of critical discussions about where this control over discourses and practices of research seemed to be located and for whose benefit, we placed the ball down with dignity and walked off the field.

We chose not to take leave of our research, but

rather to take seriously the questions and content which had formed some of our most exciting discussions. We also chose to trust our own research process.

1.2 From 'Community of Inquiry' to Collaborative Inquiry Research

While working together in this way, we came to realize that the research group was functioning in ways which are characteristic of a "community of inquiry." This is the term used frequently in Philosophy for Children literature to refer to a particular classroom learning environment which Matthew Lipman describes as follows:

> *...students listen to one another with respect, build on one another's ideas, challenge one another to supply reasons for otherwise unsupported opinions, assist each other in drawing inferences from what has been said, and seek to identify one another's assumptions. A community of inquiry attempts to follow the inquiry where it leads rather than being penned in by the boundary lines of existing disciplines. A dialogue that tries to conform to logic, it moves forward indirectly like a boat tacking into the wind, but in the process its progress comes to resemble that of thinking itself.* (Lipman, 1991, p. 15)

By relating our research activities to the notion of a 'community of inquiry,' we have developed a notion of 'collaborative inquiry as a research method,' the strengths of which are the ways in which it parallels the children's philosophical activity as described by Lipman above. In particular, six parallels which favour the collaborative and productive exploration of ideas, relate to the following: a) source materials, b) progression, c) meaning-making, d) discussion and language use, e) time and f) procedures.

Source materials. A first parallel is that just as the novel-*qua*-text[10] provides the source material for the children's collaborative and productive exploration of ideas in the IAPC Philosophy for Children program, so our research data (for example, the verbatim transcripts from the research students) provide source material for the MRG researchers.

Progression. A second parallel is that just as the children derive their discussion agendas from their encounters with source material, so the MRG researchers take their direction from their engagement with the research data. Also, just as the children's discussion "moves forward indirectly like a boat tacking into the wind", so it was with us.

Meaning-making. A third parallel is that just as the participants reading the novel *Pixie* in a Philosophy for Children class sometimes want to know what the character Pixie[11] really meant by a certain statement by asking the *author*, so the MRG researchers reading the text of the children's verbatim transcripts and listening to the audio tapes felt the need to check out their intended meanings by asking the *children* directly. The situations are similar in that both the children doing *Pixie* and the MRG doing the children's transcripts are actively engaged in meaning-related questioning and critical speculation. Recognizing that the "real Pixies" — the research students — were not characters in a novel (but more accessible than the author), our initial concern was to consult them so that we would not misrepresent their "real" meanings.

However, we soon realized that just as it is not the point for the children to consult the author for real meaning, so the children's real meanings were not the point for us either; rather it was what they did with their reasoning (their meaning-making process) that was key.[12] That is, it was not the *result* of the reasoning but the reasoning *moves* that we were after, and we thought those would be accessible through our readings of the transcripts and tapes and our collaborative discussions of them.

Discussion and language-use. A fourth parallel is that just as, during their discussions, the children focused on their own language-use as well as that of the characters in the novel, so, as MRG researchers, we often focused on our *own* language-use as well as that of the children. During our research discussions, for example, we would often pick up on and pick apart our own uses of words such as "scientific," "*real* research," "evolve," "self-corrective," "discovery," and "research *finding*."

Time. A fifth parallel is that just as the Philosophy for Children research students' discussions are often prematurely terminated by the bell, so the MRG members have found that intriguing research questions and issues spill over time constraints. This has happened when we've been captivated by questions such as these: To what extent do our preconceptions of children's philosophical reasoning have the effect of cutting off unnoticed shades of meaning and intent? Would our speculation bear more fruit if it were harshly pruned back or should it be left to run its own course, rewarding us with the unexpected?

Procedures. A sixth parallel is that just as Philosophy for Children students participate democratically in the formulation and implementation of their own inquiry procedures, so in the collaborative inquiry research method, we found ourselves to be participating democratically in the development of our own research procedures. This was grounded in both a) an assumption that each participant is able to contribute validly to the aims, process and content of the research and b) a dynamic division of labour based on transferable skills. For example, the researcher who happened to be typing at the computer had as much "say" about the content and process of the research as the one who happened to be relating an insightful comment to be noted down. The one who took minutes did so unmechanically, contributing equally to the content.[13] We began to see the importance of such a democratic process and to question its meaning and realm of applicability.[14]

Although we have drawn these parallels directly out of our work in the area of children's philosophical reasoning, it is by no means limited to that context. Not only do we see collaborative inquiry as a research method as capable of extending beyond this particular context to a wide variety of other research settings, but we also notice its convergence with feminist research methodologies.

2. THE RESEARCH DESCRIPTION

Next, we provide a brief description of our research in terms of the students in the study and in terms of our data-gathering instruments.

2.1 The Students

A total of one hundred thirty-two students participated in the project and the research data are derived from two sets, one year apart, of: multiple-choice written tests, individual student interviews and in-class observations. Each of the students answered the multiple-choice written tests. Of these, thirty-six were interviewed and half of these, eighteen, were observed in classroom communities of inquiry. Students who were interviewed and observed were randomly chosen, conditional on the selection of an equal number of girls and boys.

At the time of the first data collection, the students were in six classes of two Montreal English-language primary schools. These students (three classes each of grades three and four) and their three IAPC-certified instructors had all been involved in Philosophy for Children for at least one year. The students in four of the six classes were in Early French Immersion.[15] The MRG's choice of the two schools was based on the fact that they were the only Montreal English-language schools implementing Philosophy for Children in a comprehensive manner at the time the research began.

2.2 Data Gathering Instruments

We used three types of data-gathering instruments: a) multiple-choice written tests, b) individual student interviews and c) in-class observations.

Multiple-choice Written Tests. The MRG selected two multiple-choice written tests for use. The first was the New Jersey Test of Reasoning Skills (Modified) {NJTRS-M} (Shipman, 1983)[16] and the second was the Canadian Cognitive Abilities Test (Verbal Battery) {CCAT-VB} (Thorndike & Hagen, 1981). The NJTRS is a reasoning skills test often used by researchers in the area of Philosophy for Children. However, most of the research using this instrument has been for the purpose of program effectiveness evaluation rather than for the purpose of examining the character of children's philosophical reasoning. The CCAT-VB was chosen because, with its focus on

meaning, language and non-formal reasoning, it complements the NJTRS–M. It was also selected to provide a reference point different from that of the NJTRS.

Student Interviews. Since we wanted to characterize the children's philosophical reasoning not only by means of multiple-choice written answers but also as demonstrated in interviews and classroom discussions, we chose interviews to provide a means by which to compare multiple-choice answers on pencil-and-paper tests with oral, reasoned responses to several of the same questions.

Thirty-six students (six from each of the six classes) were interviewed in two sessions (with a one year interval) by two different interviewers using our "Philosophical Reasoning Interview Procedure" [PRIP].[17] This involved one-to-one questioning on selected items from the multiple-choice written tests previously completed by the students.

The PRIP served as an exploratory instrument, one which contrasted sharply with using predetermined categories of formal and non-formal reasoning as a point of departure for identifying children's philosophical reasoning. With data collected using the PRIP, we expected to engage with the students' talk in order to derive categories of formal and non-formal reasoning.

In-class observations. Beyond interviews, in-class observations provided additional opportunities to collect data on children's philosophical reasoning in an open-ended 'community of inquiry' setting. Observations of eighteen interviewed students (a subset of the original thirty-six) were undertaken in two sessions, a year apart. An equal number of girls and boys were randomly selected. In each of the two years, the researcher observed each interviewed student four times.

Using as a point of departure the IAPC "Child Description Checklist,"[18] designed to note the frequency with which children typically behave in certain ways, we developed a "Philosophical Reasoning Observation Checklist" [PROC]. This is an instrument for identifying specific instances of children's verbal and non-verbal behaviour which we considered to be conducive to and illustrative of philosophical reasoning. Using the PROC, the observer ticked specific instances of relevant (verbal and non-verbal) behaviours and recorded samples of the students' discourse in written form — often verbatim. This served the dual purpose of justifying as many "ticks" as possible, and collecting additional data with which to identify children's philosophical reasoning in an open-ended way.

3. TOWARDS CHARACTERIZING CHILDREN'S PHILOSOPHICAL REASONING

Having provided a brief research description, we now present an account of what it has been like to produce findings through a recursive research process. In this part of our research-story, we will describe complex content/process relationships with regard to both the process of researching and the content of children's philosophical reasoning. These relationships are dynamic and they involve us in lively interaction with our research data, with the research procedures we have chosen and with our collaborative inquiry reflections. An insight stemming from one content/process relationship has had important ramifications for our analysis in each of the others and also in our research as a whole. We have come to think of this interaction as one which challenges us to find a way to capture the complexities of what it has been like for us to engage in this process of researching children's philosophical reasoning.

3.1 Preliminary Data Analysis: Student Interviews

Our account begins with a description of the methodological procedures we followed. We then switch to another content / process relationship by reflecting on the collaborative process of engaging in those procedures. Our reflections on the interaction of these three (the data, our data-analysis procedures and our collaborative researching process) have yielded a number of insights which, for us, have amounted to a "finding." We trace that process chronologically and then provide an example which serves both to illustrate what we mean and to provide us with further opportunities to reflect on the process of conducting our research in this way. We then

take stock of the recursive implications of this finding on both our interview data-analysis procedure and on the data-gathering instruments. While we treated the data gathered with the three different types of instruments, we chose to begin by analyzing the student interview data (rather than the data collected using the two multiple-choice written tests and the observation checklist). We may have made this choice because it was only the interview data which provided us with opportunities to listen directly to the students' own voices. We may also have been attracted to the open-endedness of how we planned to analyze the interview data.

Interview data analysis procedures. We began by making verbatim transcripts of the interview audio tapes. An initial review of several of the early transcriptions immediately revealed the critical necessity of transcribing the interview tapes with a very high degree of accuracy and consistency — for reasons we will explain in the next section.[19]

Data analysis of the interview transcripts has been a collaborative process. First, as we played the audio tape of the students' reasoning, we followed the accompanying verbatim transcript. Second, we scrutinized brief segments at a time to see what (if any) philosophical reasoning the student demonstrated. Recognizing an instance of philosophical reasoning, we itemized it by putting it on a growing list which we called "Types of Reasoning." This open-ended list came to include the following: supporting examples, counter-examples, formal logic, comparison, analogy, alternative interpretation, probability, text reference, possibility, necessity, substantiation, insufficient evidence, relevance of degree, relevance of kind, and implied formal logic. It was through a rigorous process of collaborative philosophical inquiry that we were able to identify the different types of reasoning students demonstrated. Included in this inquiry was an evaluation of the quality of the student's reasoning. For example, if a student reasoned by analogy, we wanted to know if the analogy itself "worked" and how it related to the question. Third, we determined whether the "final" answer given by a student corresponded to the "correct" answer provided with the test.

REFLECTIONS PRODUCE A FINDING

At a certain point, it became evident that the way we were dealing with the responses was just the beginning. In what follows, we articulate the way the collaborative inquiry process produced for us an encounter with the unexpected.

Collaborative "reading." Collaborative inquiry provided us with an open-ended general research method for tapping into the philosophical nature of the empirical data. For example, as philosophically trained researchers, we relied on our individual experience and presumed knowledge to recognize instances of philosophical reasoning when they occurred in the data. As we went along, we tried to articulate what it was about each occurrence that made it "count" as an instance of "philosophical reasoning." Just as teachers of the Philosophy for Children program must value and trust their informed intuition, so did we while "reading" our research data.

Our use of the term "reading" in this section is figurative and it includes listening as an integral part of its meaning. We stress this because listening to the interviews on tape was essential to our "reading" of the data. In both the children's responses and the interviewer's interventions, the tone of voice and emphasis given to a word or phrase often suggested nuances of meaning which risked being by-passed by relying solely on the transcript.

We began by listening to the audio tapes many times in order to ensure the "accuracy" of the verbatim transcripts. We make no apologies for our attention to accuracy in this sense, that is, accuracy of the students' *utterances*. However, our reflections on this process have led us to question our concern regarding the accuracy of the children's *meanings* since, as previously noted, it may be beside the point to go to a child to ask what she or he *really meant* by each response.

Reading for "possible meanings." As we listened to the tapes together, different members of the group offered differing possible interpretations of the students' meanings since we were listening from four very different perspectives. Depending on the student in question, one of the

researchers may have had a teacher-pupil relationship with the student, a second listened from the perspective of a Philosophy for Children practitioner with other students, a third had conducted the interview, and the fourth listened from the perspective of one who had philosophical experience and knowledge without having had any in-person contact with the students of the study. It was not uncommon for us to identify a number of *possible* meanings (sometimes as many as five) from a single student response. This was unexpected and we found it to be in itself philosophically interesting.

Reading for "intended meanings." This immediately raised questions related to a student's *intended* meaning. Does one necessarily have to *intend* a particular meaning for it to be there? Does one even have to be *aware* that she or he is reasoning philosophically in order to actually do so? Could it be like discovering — after the fact — the humour in what you just said? Intention may sharpen attempts to reason philosophically, but is it a necessary precondition of doing so?

Reading for "possible readings." If it is possible for "meanings" to be there regardless of the children's intentions and/or awareness of their own intentions, then it ought to be possible for the researchers to "read" those *possible* meanings. Moreover, since there is more than one way to read the children's possible meanings, then the possibility exists that the researchers could have multiple *readings* which are different from the multiple *meanings* of the students.

Rather than being paralyzed by our inability to be conclusive in responding to these questions, we have come to realize that it is perhaps not so much the possible and/or intended meanings of the students that is crucial to pin down once and for all; it is rather the very possibility that a given student's meaning (intended or not) is ambiguous to *us* as researchers and thus can be "read" in different ways that is philosophically important.

This brings us back to and puts an interesting twist on the point made earlier that, "...just as it is not the point for the children to consult the author for the *real* meaning, so we came to realize that the children's real meanings were not the point for us; rather it was what they did with their reasoning (their meaning-making process) that was key." Now we can say that it is not only what *they* (the students) did with their reasoning but also what *we* (the researchers) did with *their* reasoning that is key. Ultimately it is perhaps only with and through what we as researchers bring to our understanding of the child's discourse that we (are ever able to) "decode" it.[20] Thus in this case, trying to go to the "source" (the child in question) for the "real" meaning simply masks our own researcher contribution as being an integral and inseparable part of that source.

Reading for "possible mis-readings." There is danger lurking here. It is now important that we raise questions regarding the possibility of *mis*-readings of the children's responses. Our concern is not with the danger of "reading *in*" erroneous meanings, but rather with two linked common-sense notions: a) that there is only one "correct" answer to a test question, and b) that there is correspondingly only one possible interpretation of a child's response to that question. This points further to another common-sense notion c) that there could be a one-to-one correspondence between the pre-ordained correct "answer" for the test question and the student's response to it. The possible danger is that, as researchers, we would focus all our attention on one pre-set reading (the test "answer") and not even look to see if there are other possible readings of the students' responses.

Plausibility reading. While analyzing the interview data, we took the students' (presumed) *intended* meanings seriously enough to deliberately "try them on."[21] It was while doing this and finding some of their "possible answers" to be philosophically "fitting", that we recognized the importance of focusing not only on the *possible* meanings but on the *plausible* meanings of the students' responses to test questions. This "trying on" was a familiar response for those of the researchers who have had much Philosophy for Children experience since this process of trying on children's ideas is an integral part of classroom practice and procedure. What was unexpected was our recognition of just how many of

the alternate explanations provided by the children were philosophically interesting. It was this realization that led us to circumnavigate the "danger" (of reading for predetermined answers) by focusing on the *plausibility* of the students' responses to test questions. This we now call doing a "plausibility reading" of the children's responses to test questions.

We realize, of course, that this is to paddle upstream against the common-sense current of "correct" answers and "sound" research. For example, throughout our changing research practice, we seemed to be eroding the authority of a standard test used in this research area by seriously entertaining the possibility that perhaps the students could be justified in their choice of (most plausible) answers which the test answers indicated to be wrong.

Recognition of the pivotal importance of taking "plausibility readings" of children's responses to test questions constitutes a finding of this research. At the very least, it is a finding which credits children for their abilities to reason with high degrees of subtlety and complexity. It is also a finding which has implications for testing across the curriculum — an important subject for further research.

AN EXAMPLE OF "READING FOR PLAUSIBILITY"

During the course of our interview data analysis, we began to notice that there was a certain ambiguity in a number of children's interpretations of the phrase "must have" in the following question from the New Jersey Test of Reasoning Skills.

> Joyce's father works for the road department. If it snows, he has to work late. Last Tuesday he had to work late. Does that mean it snowed last Tuesday?
>
> a Yes, it **must have** snowed.
> b.You can't tell if it snowed or not.
> c. No, it could not have snowed.
> (Our emphasis.)

It was when we analyzed the verbatim transcripts of the students' responses together with the corresponding audio tapes that we noticed that some children appeared to be using the phrase "must have" in a way that warranted further investigation. They were using this phrase in a way that made plausible their selection of a "wrong" answer. It then became conceivable that what might otherwise be considered to be "wrong" answers and therefore represent incorrect reasoning, might in fact be highly justifiable answers arrived at by defensible reasoning.

The term "must've" is often used in everyday language by children to refer to "probably" rather than "necessarily has to have." For example, if a child is asked why several classmates are late for school that morning, he or she might well respond that they "must've" slept in, meaning quite simply that it is *likely* that the late students slept in. Our research already indicates that children of the ages of eight to eleven use *with great complexity* what logicians call "modalities": possibility, probability, improbability, necessity and impossibility. At the very least, this dexterous use of modalities by children raises important questions about the plausibility of their choices of answers other than those considered to be correct by the test makers.[22]

We're now talking about two findings. The first is the possibility that the students might have good (defensible) reasons for "wrong" answers; the second, which emerges from the first, is that the children are capable of an unexpectedly dexterous use of modalities.

The unexpectedness of this dexterous use of modalities by children may be due to our own initial mischaracterization of children's "reasoning" which we now see as having been restrictive by virtue of our having *unwittingly* relied methodologically on predetermined categories. Despite what we thought to be our clear-sighted attempts to avoid approaching the children's "texts" with an explicit predetermined list of categories of philosophical reasoning, we found that indeed we did have a list but that it was implicit; it was an implicit list which did not include the use of modalities.

Being confronted with one's own preconceived notions is an important aspect of researching. Open-ended data analysis has been one way for us to notice and greet the unexpected in our children's philosophical reasoning research — an intricate process. Whatever we find to be characteristic of children's philosophical reasoning is intertwined with whatever (e.g. preconceived no-

tions) we bring to the research. It was our encounter with the unexpected that enabled us to "see" the implicit. As we "found" the *un*expected we also found out, or came to know, more about what we actually did expect.

RIPPLE EFFECT IMPLICATIONS

Next we examine two recursive ripple effects of this example of "reading for plausibility", both exemplifying an interactive relation between content (in this instance, children's use of logical modalities) and process in the research. One had implications for our interview data analysis procedure and the other for two of our data-gathering instruments.

Interview data analysis procedure. Once we had noticed that modalities were an important characteristic of children's philosophical reasoning, it became necessary to return to the interview data analyzed up to that point with a view to revising how we had "read" them. Prior to our "modalities" insight, it hadn't occurred to us that modalities might be important philosophical reasoning characteristics for which to "read." This led us to engage in a recursive process and to "redo" our reading of the interview data with this newly acquired sensitivity.

Data-gathering instruments. The second ripple effect of this example of reading for plausibility was to extend this recursive process to a re-examination of two of our types of data-gathering instruments. Interview data analysis led to insights which sent us back to think in a different way about the multiple-choice written tests, and this is turn led us to re-examine our classroom observation protocol.

With regard to the multiple-choice written tests, we became concerned about their limitations as instruments for characterizing children's philosophical reasoning. Our concern was that such tests may inadvertently *mis*-characterize the children's philosophical reasoning in the event that they mask the possibility that children might have defensible reasons for their choices of "wrong" responses.

With regard to the in-class observation protocol, we noticed that the category of modalities was conspicuous by its absence. What guided this recursive process of re-examining our interview data analysis procedure and our research instruments was not simply the *presence* of modalities in the students' engagement with the "Joyce question", but also the students' *subtle uses* of modalities (as previously mentioned).

RIPPLE EFFECT REFLECTIONS

The above ripple effects are signs of an intimate relationship between that which is *"found"* in research (both data and research findings) and that which is *used* (both general method and instruments) to find that which is found.[23] In other words, what is found (or not found) to be characteristic of children's philosophical reasoning may depend on how or with what it is found. Our research provides another illustration of this relationship, one which has to do with process/content interaction in children's philosophical reasoning.

Can it ever be said that children reason *philosophically* if they *never* deal with metaphysical, ontological, ethical or epistemological issues? During the process of in-class observation data collection, it became evident that within their communities of inquiry, children frequently did choose to discuss ethical and epistemological issues and did so with philosophical acumen. This was hardly a surprise given both our philosophical backgrounds and those of the children, all of whom had been exposed to Philosophy for Children for at least a year.

What *was* surprising was our realization that the design of our research had overplayed 'process' in a way that camouflaged 'content'. It became apparent that philosophical content, far from being supplemental to children's reasoning, is central to it. That is, the how (process) and the what (content) of philosophical reasoning are mutually necessary. Each is necessary to — although not sufficient without — the other. This required a recognition that philosophical content is a (not-always-recognized) dimension of what we otherwise take to be everyday reality; a dimension that was missed not only in the MRC's own Philosophical Reasoning Observation

Checklist (PROC) but also in the New Jersey Test of Reasoning Skills (NJTRS), the frequently-used yardstick of children's philosophical reasoning. In both, the philosophical process is dominant in a way which masks implicit philosophical content.

3.2 Data-gathering Instruments: 'Improvements'

As we went along, as researchers often do, we collected a variety of possible improvements to our data-gathering instruments. At first our experience with the interview protocol produced standard concerns about all three instruments, including the interview protocol itself. After having collected a range of what we then considered to be important "improvements", we then found ourselves taking a second look at our criteria for identifying them in the first place. What was it, we wondered, that made us call them "improvements" — especially in relation to the insights we were gleaning from putting our research into practice and from thinking about those insights and about that practice? We came to realize that many of the criteria for selecting our "suggested improvements" were actually lodged within a positivist methodological world view which we had also come to put into question.[24]

Our account of this transition emerges as a series of changes which we referred to as "At first ...(But) Nows." [We note that our "(But) Nows" represent insights which are open to further inquiry.] In what follows, we do an "At first..." description of our data-instrument "suggested improvements" with "Now" comments appended to each.

Ambiguity. Before looking at each of the instruments separately, we comment briefly on an important issue which is common to our initial suggested improvements to all three instruments, namely our continuous concern with ambiguity. An over-riding concern for us throughout this research has been a concern with understanding the children's meanings. At first this concern took the form of trying to 'tighten up' all possible ambiguities: in the written tests, in the interviewers' questions, and in the observers' observation categories. The improvements we wanted to suggest all came from our intent to do justice to the students' philosophical reasoning. At first, our concern as researchers was to "control the (language) variables" as much as possible.

Now we see that our concern with restricting ambiguity produced an implosion. It is this very ambiguity which provided us with the window we needed on the richness of the children's philosophical reasoning. This ought not to have come as a surprise: philosophy thrives on ambiguity. By trying either to restrict ambiguity in the questions presented to the children or to remove it in our interpretations of their responses, we were inadvertently gutting our own research. Instead we realized that we should be *looking for* ambiguities and interpreting what it is that both the students and the researchers do with them.

Multiple-choice Written Tests — 'Improvements'

One of our original reasons for choosing to do this research was to examine the utility of multiple-choice written tests as a single measure of students' philosophical reasoning abilities. At that time it made sense to us to use such tests as a sort of base-line and to compare the test results of selected students a) with their reasoning performances in interviews (which consisted of some of the same questions from the written tests), and b) with their reasoning performances in open-ended in-class discussions.

While we had judged the New Jersey Test of Reasoning Skills - Modified (NJTRS-M) to be appropriate for use as an instrument for this research, we now believe that a rethinking of the NJTRS may be warranted, given our reflections on this test in relation to our preliminary interview data analysis.

As pointed out above, it may well be that students are offering highly defensible but "wrong" answers to several questions of this test. This may be attributable to the fact that the NJTRS is written in language which has been "translated" from that of formal logic in order to be accessible to children. The result can be a possible mismatching of the *intended* meaning of a given response item involving formal logic and its *perceived* meaning on the student's part. In the case of "must have", this can look like a *translation* issue, although it is more likely to be an *audience* issue. Rather than something being "lost in trans-

lation" from the language of formal logic to informal logic, it has more to do with what is read by different audiences. By changing the "audience" from formal logicians to children, the intended and restrictive meaning of "must have" is superseded by the less restrictive, informal meaning which is characteristic of the students' everyday uses of the phrase. Not surprisingly, this can then lead to a misinterpretation of the children's actual logical competence. Thus children's defensible answers may be deemed to be "wrong" on the basis of *formal* logic considerations — not necessarily the explicit object of the test.

At first, we had thought the test needed to be *tightened up*. Now we believe that the test needs to be *approached differently*. Although we were somewhat alarmed at first that the test seemed to invite a misrepresentation of the students' abilities to reason philosophically, it was that very problem of ambiguity which permitted us to perceive the complexity of the students' thinking in such instances. This reinforced our hunches not only about the necessity to use more than one data-gathering instrument, but also about the critical importance of collaborative inquiry methods for reading that data.

STUDENT INTERVIEW PROTOCOL — 'IMPROVEMENTS'

With regard to the Philosophical Reasoning Interview Protocol (PRIP), initial improvements we envisioned had to do a) with the questions we asked the students, b) with the "prompts" the interviewer used in order to draw out the students' reasoning, c) with the conditions under which the interviews were conducted, and d) with the time span between each student's two interviews.

Interview questions. At first we were concerned that one of the questions in the interview protocol posed to the interviewee ("Do you think it *could* make sense?") was in need of restatement.[25] Our concern was that this question might be interpreted by the student as referring to the *semantic possibility* (sense as opposed to nonsense) rather than to its *logical possibility* (whether or not the suggested alternative follows from the test question). For example, "No, it could not have snowed," (from our sample test question), makes sense semantically but not logically. That is, the statement "No, it could not have snowed." makes sense in and of itself. However, within the context of the sample question, it does not follow. While in practice it appeared that none of the interviewees did interpret the question as referring to semantic plausibility, nevertheless we were concerned about the possibility of a misreading of their responses.

Now we have come to welcome the question, "Do you think it *could* make sense?" *because* of its invitation to the student to consider either or both semantic plausibility and logical possibility. In other words, the ambiguity of 'could' in the question allowed the students to make sense of the question in at least two ways. This, in turn, made it more likely that we would be mapping uncharted territory in our exploration of the students' philosophical reasoning. For example, when we recognized the "must've" case previously described, we were amazed; it was a finding that made us want to return to the data to see if other students were also using logical modalities in this way.

Interviewer's prompts. At first we were concerned that the interviewer's prompts for the student to clarify or elaborate on her or his initial response should be consistent in form. These prompts (e.g. "What makes you say that?", "How come?", "Because...", "What tells you that?", and "What gives you that feeling?") had been used interchangeably to elicit the elaborated reasoning of a student who hadn't spontaneously offered it. We worried that these prompts added "unnecessary variables" and we thought that in future it would be wiser just to use one. Which one would be "clearest" and "most succinct" we had yet to determine; we anticipated that this would become evident with further analysis of the data collected.

Now we consider that there is no reason to avoid such a variety of probes. As long as we weren't putting words into the students' mouths or putting them on the defensive, as long as we were probing and not offensively challenging, probes such as these could only contribute to the effectiveness of the interviews. These prompts

are both appropriate and consistent with the open-ended, in-depth interview techniques of qualitative research.

Environment limitations. Another of our "At first" concerns had to do with the limitations posed by the environment in which the interviews were conducted. At first our suggested improvement recommended that such limitations "merit careful attention." In an earlier draft of this paper we expressed it this way:

> *The restraints of limited available quiet space within a primary school are many and great. The interviews in this study took place in empty (and not so empty!) classrooms, teacher workrooms, a staff lounge, a nurse's office, a stage adjoining a gymnasium in use, a principal's office and in a hushed library adjacent to a classroom with a dividing wall under demolition. Given this situation, the logistics for interviewing require acrobatic expertise. Despite the limitations offered by the primary school setting, it was preferred to any external setting. Given that the interviewer was someone whom the children did not know, the familiar school environment offered reassurance to the students. In addition, the students' absences from class time were minimized since, when one student had finished the interview, she or he went back to the class and signaled the next student to be interviewed.*

Our concern was again with the quality and consistency of the students' reasoning under such varying circumstances.

Here too we approach our data differently now. We now marvel at the reasoning the students were able to reveal *even under* such varying and sometimes adverse conditions. We learn from this that such reasoning does not need incubator-like conditions, since the students' reasoning is adaptable and agile. These variances have now become a source of interest for the research rather than a drawback.

Same questions and Elapsed time. A fourth "At first" concern related to our use of the same interview and multiple-choice written test questions for pre- and post-tests. Although this had a virtue of consistency, we were concerned about the possibility that given the relatively brief elapsed time between pre- and post-tests, the students would have had time to mull over their thoughts about their responses to test questions. In practice, during the post-interviews on the test questions and responses, there was nothing we noticed to indicate that any of the students recognized the questions. The possibility nonetheless existed that in the back of the students' minds, the questions and responses were already familiar. Despite this possibility, we decided to use the same tests and interview protocol in pre- and post-testing. We judged that the possibility that the children might remember would be less important than maintaining the same content in the pre- and post-testing.

Now we think differently about this too. Far from worrying about whether the students recalled the questions, we simply pay attention now to whether and how what they said the first and second times differ or remain the same, and why and what it might mean if they did or didn't. We have unclenched our tight-fisted control.

IN-CLASS OBSERVATIONS — 'IMPROVEMENTS'

Characterizing children's philosophical reasoning has involved us in an on-going, self-corrective community of inquiry research process in which we have had to deal, often retroactively, with challenges and problems. Our creation and use of the Philosophical Reasoning Observation Checklist (PROC) illustrates this point. First, the process of creating the checklist challenged us tentatively to define (aspects of) children's philosophical reasoning — this despite our explicit intent *not* to start with "pre-defined categories." Second, re-thinking the completed checklist gave rise to such distinctions as those between preconditions of philosophical reasoning and philosophical reasoning itself. Third, reflection on the data collected using the checklist revealed the relative importance of matters of philosophical content, matters which we had overlooked when we created the checklist. Thus, both our reflection on our practice, and the practice which was based on our reflective insights, contributed to both transforming the project and making us more aware of the boundaries of our assumptions.

In reflecting on our practice, initial improvements to the PROC we envisioned had to do with a) category distinctions, b) unnecessary ambiguities, c) number of students observed, and d) different observers.

Category distinctions. In the first version of the PROC, categories identifying philosophical reasoning and its preconditions are grouped together under the heading "Reasoning skills." At first we thought the distinction between categories which identify the philosophical reasoning of children and those which identify preconditions *for* philosophical reasoning needed to be made clear. For example PROC #5 "Demonstrated originality or imagination," is distinct from "reasoning" (in the traditional sense of the term) but is considered to be a pre-condition of it.

Now we think that it may not be the categories themselves that we need to worry about; rather, it is *our thinking in terms of categories* which was problematic. We needed to loosen up the "control" we sought to put on the data by thinking of "originality or imagination" as standards or characteristics which the students either do or do not exhibit. We needed rather to look at the items on the checklist more as "search generators" or "researcher thinking tools." Thinking about the checklist items in this way helps us to learn not only about the students' thinking but also about the part our own thinking plays in defining the students' thinking.

Unnecessary ambiguities. Another "At first" concern we had with regard to the PROC, one which recalls the remarks at the beginning of this section, was that many of the definitions of the categories remained "too large" and suffered from "unnecessary ambiguities." In the first version, we had taken pains to elaborate working definitions for each category together with two examples of possible qualifying instances. These examples were drawn from actual instances and were supplemented by others we created for this purpose. However, experience with the PROC revealed, we thought at first, that we needed to

clarify the categories in order to increase its effectiveness.

Now, as mentioned earlier, we come to the whole issue of "ambiguity" differently. Instead of worrying whether the categories are "too large" or suffer from "unnecessary ambiguities," we treat these concerns as points to notice and take into account. We call into question the whole notion of category "definitions" and choose instead to treat all of our former definitions as partial descriptions. Our research seems to us to be more akin to an artist's sketch than to an architect's mechanical drawing. We have our erasers handy and our pencils ready to re-sketch repeatedly.

Number of students observed. A third "At first" suggested improvement we identified had to do with the appropriate number of students per class observed. We weren't satisfied with what we had tried. In practice, instances of student behaviour needed to be noted immediately, together with verbatim qualifications (where possible). As the participation of the three students increased, the efficiency of observing tended to diminish. When a student's intervention was replete with philosophical reasoning, or when three observed research students of a class were engaged in a discussion among themselves, it was often impossible to record faithfully. The opposite was true for classes in which two of the three research students rarely participated verbally in class discussion.

Now we see these concerns as typical of the problems encountered by any qualitative researcher who seeks to document in-class interactions as fully as possible by means of field notes. The problem seems to be one not of the number of students observed, but rather of the number of researchers assigned to the task. Perhaps we should be thinking of one for one, that is, one researcher observer for each student being observed (in this case three at a time). Or perhaps we should be thinking about video or audio tapes.

Different observers. A fourth "At first" concern was the use of the PROC by two different observers, one for each data-collection period. Because circumstances dictated having two different observers, the aim was to have the content and process be as similar as possible from one period to the next. In order to achieve this aim, meetings were arranged between the two researchers before the second data-collection period. They observed two classes together in an attempt to concentrate their efforts towards a shared goal and they discussed converging and differing results of the data collected after each of these two classes.

Now we no longer worry about this in the same way. Although it still seems to have been a good idea to have the two different researchers work together, this is now as much *because* of the difference in experience between the two. Now we welcome different observations (both in quantity and in substance) and take them to be rich sources of data.

To summarize, we want to underline that this whole process of rethinking our data-gathering instrument "improvements" is also illustrative of the interactive relationship between data, students, researchers and research procedures. At first our so-called "improvements" seemed to be positively crucial. But then our more open-ended qualitative data analysis produced insights which seemed much more important and cast our previous instrument improvement concerns in a trivial light. They weren't *positively* crucial; they were *positivist*-ly crucial! What did it matter what prompts the interviewer gave, what environment, what time lapse between pre- and post-tests, or whether the students remembered the questions or not? We were all set to delete these "concerns" and "suggested improvements" from our account altogether — relegate them to our positivist history. However, that too turned out to be another "At first...." Now we want to say our "At first" concerns are still important, only for different reasons.

The collaborative inquiry research method, therefore, has been a generative context not only of our preliminary findings but also of a particular philosophical disposition to inquiry. The data analysis of the interview material using this general method has been a philosophical adventure in itself. Within a forum of collaborative inquiry, the acts of identifying shades of meaning (intended or not), subtle uses of modalities, various types of non-formal reasoning and subtle qualifications, all have contributed towards creating in-

triguing philosophical puzzles. As with all good puzzles, the process of working on this one has melded work with play.

4. REFLECTIONS ON RESEARCHING CHILDREN'S PHILOSOPHICAL REASONING

In this concluding section we reflect on a) the writing of this article and b) on ethical questions raised through our research process regarding who is to research children's philosophical reasoning.

4.1 Writing as an integral component of researching children's philosophical reasoning

Somewhat daunted by the volume of rich data we had collected, we could see no end to the analysis possibilities and so we decided to write about important early insights before finishing all the data analysis. We determined that we had the substance of at least two articles out of the work already completed; we all agreed that Stanley and Michael would work separately on these. As it happened, while at Eötvös Lorand University (Hungary) as a visiting researcher, Michael produced the first draft of this article. The change of venue provided him with an opportunity to reflect from a distance, not only on the content of our research but also on our process of researching together. When he mailed the first draft home, it seemed to us to include a faithful rendering of our common experiences.

That turned out to be yet another "At first...." During the long process of editing that first draft, we were becoming increasingly impatient to complete the article so that we could all get "back to the data." It had been a long time, considering the months we had spent working on external grant proposals (which we ultimately chose not to submit). We felt we were getting too far away from our "research" and the time-consuming editing of this article wasn't helping — or so we thought.

It was only when we realized that to write/edit the article *was* to engage in the research itself that we were able to transform our understanding of what we had done. That realization enabled us to slow down the pace, to shed the "get-it-done" attitude, and to probe more and more deeply into just what this research process meant to us. We hadn't expected to learn so much more — not only about our research process but also about children's philosophical reasoning itself — through *writing* about it. We also hadn't expected to come to understand that writing the article together could be an important way not only of *thinking about*, but also of continuing our research process. Writing our research, particularly about its process, quite naturally integrated "meta-analysis" — a feature of our general method of collaborative inquiry which has had an impact on various aspects of the research itself.

Writing the research has also involved us in re-conceptualizing how we understood our own data analysis and preliminary results, particularly with regard to the open-ended process / content relationships of the research. What appears to have fostered such a re-conceptualization was our choice of narrative for our writing. As our research-story unfolds, we are in the active process of figuring out, in writing, the function of narrative in our research. Beyond the legitimacy of narrative as a way of knowing, when we reflect further on the power of narrative for research purposes, we recognize that that power also lies in its ability to engage writer-researchers with their intended reader-audiences.

The first draft of this article, although not explicitly narrative, was intuitively so. What surprised us about this initial narrative was that it led us to reconceptualize our research by permitting us to integrate, explore, and otherwise take seriously our everyday research dilemmas. For example, one of our dilemmas, the one related to funding described above, was the result of cumulative, subtle and unexpressed feelings of malaise with our research process, feelings which we eventually came to acknowledge openly.[26]

Our malaise had to do with the contradiction between our research vision on the one hand, and our research practices as determined by the positivist requirements of grant agencies on the other. Our collaborative inquiry process, together with the process of narrating our own research-story, has pushed us to identify and analyze the contradictions such as this and to reflect on

what our everyday research dilemmas could teach us — not only about our own research, but also about the functioning of social power in society.[27]

By 'writing down' this research, by researching-*in*-writing, we have come to recognize the political dimensions, if not determinants, of our research dilemmas. We have also come to recognize the ethical dimensions and political consequences of what we might do to resolve (or at least deal with) some of these dilemmas, as will be evident in the next section.

4.2 Who is to do research into children's philosophical reasoning?

The question of who is to do research into children's philosophical reasoning emerged out of the intersecting processes of researching and writing. In what follows we reflect from the inside out on who should be included in (and who should not be excluded from) doing this research.

ELEMENTARY SCHOOL TEACHERS AS RESEARCHERS

For Judy, an elementary school teacher with over thirty years of teaching experience, questioning the involvement of teachers in researching children's philosophical reasoning was direct and personal. As a practising teacher in an elementary school, she was (and still is) not remunerated for her extensive work in the project, unlike Stanley the university professor (whose work description includes on-going research) and unlike Michael who, as a graduate student, received some payment for his work (for the first year at least). In spite of recent calls for the "reflective-practitioner" (Schon, 1987), the realities of Judy's teaching and researching situation gave rise to a questioning of the lack of opportunities for teachers to engage in serious research.

In practice, elementary school teachers are minimally involved in doing educational research. Although in principle school teachers are "free" to do innovative educational research, structural limitations prevent them from doing so thereby prompting us to question such freedom. This is a serious limitation given the degree to which, as Potvin (1991) points out, the very act of teaching entails researching. In what follows, we examine issues related to the minimal involvement of elementary school teachers in educational research.

We wonder about gender issues in these structural limitations as we observe the gendered distribution of research. It has been primarily the work of university professors in education (the majority male) rather than that of elementary school teachers (the majority female) — teachers who are expected to look to university-generated research and knowledge for direction of their practice. For elementary school teachers to participate in educational research, they must see themselves to be capable of doing research. Just as doing philosophy is often seen to be "ivory tower" activity, so (from the perspective of elementary school teachers) is doing research.

In the context of our researching children's philosophical reasoning, we have found that the involvement of elementary school teachers as researchers, beyond being an ethical and political issue, is also an epistemological one. Those teaching Philosophy for Children, for example, are well-situated to research the philosophical reasoning of children with whom they are in everyday contact since their classroom location offers them privileged access to knowledge of children's philosophical reasoning.

During our data analysis, "At first" we all worried that such intimate knowledge by the teachers might be an *obstacle* to an "objective interpretation" of the data. We often asked ourselves, for example, if the teacher of a student whose transcript was being analyzed should "disqualify" herself. Now, however, we realize that it was those very teachers' interpretations of their own students' responses which actually gave rise to our richest encounters with the unexpected. This realization has led us to transform our own perceptions regarding the methodological position that a teacher is "too close to the situation" to research it.

At the same time, the structural pressures we experienced through applying for institutional research funding clearly pushed our empirical studies *into* a positivist framework of science in terms of its approach to knowledge and method. In practical terms, such pressures had the effect, it seems to us, of not taking seriously the potential contributions of elementary school teachers en-

gaged in philosophical inquiry with children. We find that the question of characterizing such philosophical reasoning is complex enough to warrant in-depth exploratory research.

Intuitively we realized that this was research for which traditional empirical methods (which maximize "objectivity" and "distance") did not seem appropriate. We were concerned about the danger of side-stepping the complexities of both the philosophical reasoning of the children and the experience-grounded knowledge of the Philosophy for Children teachers. For example, we felt that philosophically trained teacher-researchers are particularly well-placed to make determinations about the degree to which class discussions philosophically "jell"; and we wanted to do research which would make use of (and not exclude) our experiential knowledge to examine the qualities of children's philosophical reasoning.

Finally, it has become evident to us that elementary school teachers are relatively more vulnerable to structural determinants of (or pressures on) research practice than others who are institutionally-situated to do research. Elementary school teachers are considerably more dependent on traditional funding agencies than, for example, tenured university professors. This is so even if these teachers have also had rigorous research training. Again, the absence of remunerated time allotted to elementary school teachers to research their own practical work unwittingly pressures them to remain in the traditional position solely as "practitioners" who execute the aims and knowledge of *others*.

ELEMENTARY SCHOOL CHILDREN AS RESEARCHERS

Is it ethical to do research *on* children's philosophical reasoning without carrying out that research *with* the children whose reasoning it is? Since the children were included in the data collection phase, why not from the very beginning? If it is *not* ethical to restrict their participation to data collection, then how could the children participate in a meaningful and practical way? What would this research have looked like if the children had been involved in determining its focus? These questions emerged from our reflection on the boundaries we had set to our inquiry.

Should the children be part of *our* collaborative inquiry? This particular question actually began as an epistemological consideration. As previously mentioned, during the data analysis we had found ourselves at times wanting to ask a student what she or he meant by a phrase we were analyzing. At first we thought that widening the frontiers of our collaborative inquiry would allow us to gain further knowledge. Soon, as we came to question the underpinnings of our need for "accurate" knowledge in this particular sense, we have moved beyond our epistemological concern and transformed it into an ethical one.

Having led Philosophy for Children classes for more than a decade, Judy was very familiar with the notion of children directly participating in the on-going definition of classroom procedures for inquiry for it is part of 'community of inquiry' pedagogy for children to have a say in setting both the conditions and the content for their inquiry. Therefore, raising the question of the children's participation in the research as both conceivable and ethical is an extension of Judy's everyday practice with children.

Michael on the other hand, active in community-based adult education, also for more than a decade, approaches the issue from a different perspective. He makes the assumption, with regard to the children of the research, that the people most directly affected by an issue be those who are central in having a say in defining it, exploring approaches to it and acting on it.

Our ethical question becomes even more meaningful when we consider that adequately characterizing children's philosophical reasoning has been important to us not only as a purely academic concern, but also as a political one. We have come to expect that children would benefit from a recognition of their philosophical reasoning competence.

In the modern era, children have been denied civil and human rights on the basis of a presumed deficiency in their reasoning capacity and competence. In classical liberal philosophy, the democratic rights of citizens are founded on the bedrock of rationality. Descartes' "I think therefore I am" nourishes and typifies this position. Groups of people who are judged to be not fully

rational have been (and are) systematically denied full status and rights as citizens and as humans. Consider Mary Wolstonecraft, for example, who long ago fought for the position that women are not, as most men of her day would have it, lacking in rationality. On that basis, she argued that women should be equal to men. Children's social rights are circumscribed by virtue of the fact that they are still considered to be generally "unreasonable" and lacking in adequate reasoning capacity and competence.

That children do not have as much social power in society as adults may be one reason why research in the area of children's philosophical reasoning is relatively new. By reflecting on our research process, we raise the possibility that institutionally circumscribing the *ways* that the complexity and richness of children's philosophical reasoning can be researched may have the *effect* of contributing to justify the *status quo* evaluation of children's reasoning as, by definition, "less" than that of adults.

At first, we had taken it for granted that what partly motivates us in our research is the belief that we are contributing to the well-being of children. But now we recognize that, in our actual research practice, the participating children really were our *objects* of study (euphemistically called our "research *subjects*"), and were functioning as our "sources of data," not as our partners in research. Realizing this while researching-*in*-writing, we found ourselves recursively revising the way we referred to the children. At first we referred to them as "research subjects"; now we call them "research students." While this might indicate a sensitivity to the issue, it does not solve it. Should not those of us engaged in characterizing children's philosophical reasoning also engage the children themselves in doing such research? For ethical, political and epistemological reasons, we now would no longer exclude children from participating as research partners in future research related to them.

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Throughout our researching-in-writing we often found ourselves to be digressing into discussions. For example, in writing the preceding paragraphs, we discussed our seemingly wholesale rejection of positivist research methods on the basis of the presence or absence of hypotheses. It was as if the very existence of identifiable hypotheses were sufficient grounds for rejecting a particular research methodology. During this particular discussion we identified previously submerged dichotomies which structure our research-story and analyses [presence / absence, good / bad, either / or, "At first" / "(But) Now"] and which, in a postmodern turn, we now wanted to 'undo'. Further discussion has led us to see that we had also previously undone several structuring dualisms already such as right answers / wrong answers.

It is through both the digressing and the writing that we have come to shift our thinking regarding such questions as the role of hypotheses in our research. Now hypotheses are part of our very notion of research. It is not the presence or absence of hypotheses but rather what we do with them that is important. By situating them within a different epistemological framework, we see that we too have hypotheses in the form of educated guesses. Although we no longer see our research tasks in terms of seeking to validate fixed hypotheses, we do see hypothesis-making to be an inherent feature of the process of doing research.

We had thought of such discussions as luxuries, as little intellectual side-trips which were of intrinsic interest but which were keeping us from bringing the research article to a stopping place en route to our publication deadline. We soon realized that far from being luxuries, these digressions are central to and grounded in our research practice. It is from such "digressions" that we advance our research.

NOTES

1. Philosophy for Children is a program (Elementary and Secondary) created by Matthew Lipman and Associates of the Institute for the Advancement of Philosophy for Children (Montclair State College, Upper Montclair, New Jersey).
2. The New Jersey Test of Reasoning Skills, (Shipman, 1983), is a test used to evaluate children's philosophical reasoning.
3. IAPC refers to the Institute for the Advancement of Philosophy for Children, Montclair State College, Upper Montclair, New Jersey.

4. St. George's Elementary School, Montreal, Quebec. During the second year, Elizabeth Therrien-Scanlan left St. George's and MAG to accept a position as principal of a private secondary school.
5. Edinburgh Elementary School, Protestant School Board of Greater Montreal, Quebec.
6. The children in this study were doing philosophy using IAPC philosophical materials. The program used in this study was Pixie (Lipman, 1981).
7. We are pleased to acknowledge the contribution of these Montreal Island Council funds from the research committee of the Protestant School Board of Greater Montreal.
8. With regard to the notions of "writing up" and "writing down", we draw on Kirby & McKenna (1989, p. 18): "As Richard Darville has so clearly said, in the dominant literacy, which is organizational, 'what counts is how matters can be written up (to enter them into the organizational process), not how they can be written down (as an aid to memory or a way of relating experience)."
9. A number of these issues are discussed in Part 3 below.
10. Pixie (Lipman, 1981), the book read by the students of this study, is an example of one of the novel-qua-text materials of the Philosophy for Children program. As those familiar with this program will know, it is a children's story in novel form which seeks to stimulate the children's interests in philosophical ideas which are embedded in the text waiting to pique their interest, and which provides a model of philosophical inquiry.
11. Pixie is the main character of Pixie, the children's philosophical novel.
12. This is only part of the story. For another part, see "Reading for 'possible readings'" in section 3.1.
13. These democratic and collaborative characteristics are similar to those identified by Simone Landry (1990) in relation to feminist research methodology. They are also similar to those noted by Lynda Messor and Peter Woods (1991) in their discussion of "collaborative research" (p. 68-69).
14. This process and questioning would often extend to such practical matters as in "Should we rotate who takes the minutes?" and "Who should wash the coffee cups and dishes after the research meeting?"
15. "Early French Immersion" is one of several forms of bilingual education available to English-speaking students in the province of Quebec. In this version, the children study almost exclusively in French with French-speaking teachers for the first three years (Kindergarten to Grade 2). English is introduced in Grade 3 (40%) and is increased to 50% in grades four, five and six.
16. The modified version (NJTRS-M) consists of a subset of seventeen of the fifty questions of The New Jersey Test of Reasoning Skills. Those questions were selected by members of a Montreal French-language research group, CIRADE, which was researching the moral dimension of children's philosophical reasoning.
17. This was a protocol developed by the MAG in keeping with our intention to minimize the students' opportunities to demonstrate philosophical reasoning. The interview procedure sought, therefore, to elicit the student's reasoning for each alternative for each question. Using pre-identified "prompts," the interviewer invited the student to articulate and/or clarify his or her reasoning as much as possible. After the student had responded to all three alternatives for one question, the interviewer asked the student which of the three alternative 'answers' he or she considered to make the 'most sense' and why.
18. The "Child Description Checklist" is an IAPC document which was prepared for use in Philosophy for Children teacher-training.
19. For this purpose we made use of the protocol described by Pieter Mostert (1985, p. 23).
20. This point is derived from Linda Christian-Smith's (1990) discussion of the use of semiotics as a method which focuses on "understanding both the meaning of social practices and how these meanings are constructed" (p.146). See also Patti Lather (1991).
21. In this sense we availed ourselves of the freedom Reed (1983) advocates for children, who ought to have "the freedom and opportunity to put words together in somewhat novel ways... to adopt different stances... He may be, as it were, simply 'trying on' certain conventions" (p.21).
22. A more extensive treatment of the complex issues around this point is the subject of on-going MAG research.
23. These considerations are both theorized within and corroborated by case studies in the literature on qualitative research. For example, see the collection of essays edited by Robert Burgess (1985).
24. By "positivist" we are referring to a general approach to knowledge by which only that which is observable, measurable and scientifically verifiable may be considered to be knowledge.

25. Michael Schleiffer of Université du Québec à Montréal (UQAM) brought this consideration to our attention.
26. See "Transformations" in section 1.1 above.
27. Dorothy E. Smith (1990), feminist sociologist, describes and theorizes such a process of identifying and analyzing societal 'relations of ruling'. Methodologically, Smith does this by taking as points of departure for research, everyday life dilemmas of and tensions experienced by women.

** Unbeknownst to her, our researching-in-writing would have been quite different were it not for the welcome influence of Nancy Jackson on many of our "digressions."*

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