The Epistemology of Imagination and Play in the Community of Inquiry

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I.

The “Community of Inquiry” (COI) as it is used in the context of doing philosophy with children, is a phrase that refers to a pedagogical method in which groups of children and adults come together to discuss a targeted philosophical issue. Generally, a philosophical topic is decided upon and initial questions or ideas may be proposed, which are used to generate a discussion among participants. One of the most important features of such a discussion, when well organized, is that all participants are provided with an opportunity to express their opinions and positions, with an express objective of doing away with an adult/child or teacher/student power differential. A model COI provides a place for many philosophical perspectives and opinions.

COI reflects the dawning recognition among many educators who worry that standard lecture-based approaches to teaching and learning fail to generate genuine thinking in students. Recognizing the limitations of such pedagogies, educators have cast about for “active-learning” pedagogies that generate thoughtful, meaningful learning for students, a simplified description of the transformation of educational pedagogies, with roots in the works of such diverse thinkers as Jean Jacques Rousseau, Maria Montessori, Lev Vygotsky, Paulo Freire, and others.

As educators strive to help students develop empathy, expand their minds, view concerns from different perspectives, think critically, and become citizens of an evolving global community, it is clear that one thing students most need to learn is to transcend their own perspectives and to learn to view the world from others’ points of view. Martha Nussbaum observes that “[students] see only what their own minds have created, never the reality of the person who stands before them.” Implicit in this passage, is her view that students must develop a cognitive apparatus that allows such altered viewpoints, a facility that rests upon imagination.

COI plays upon this use of imagination and allows students to avoid knowledge transmittal that is “pre-packaged” and finished. Instead, COI is a collaborative, inquiry-driven dialogue that invites young people to jointly interrogate a philosophical topic. Ideally, it represents a dialectic between several parties that involves careful thinking and listening, as well as speaking. As David Kennedy notes, COI is applied philosophy, “...the actual doing of philosophy rather than reading it or reading about it.” COI is designed to integrate children into a discursive, intersubjective intellectual community. Most importantly, it allows participating children to develop a respect for their own and others’ intellectual individuality. Michael Pritchard describes his own excitement at “seeing a community of inquiry in action [with its] give and take of...discussion.”

The dynamic interaction in a well-structured COI encourages a philosophical dialogue that enhances children’s abilities to frame philosophical issues posed by themselves and others, and to
reflect on those issues while developing creative, individual approaches to thinking. In pedagogical terms, children become active thinkers and respected arbiters in the discussion, using imagination to cast and interrogate philosophical dilemmas in an, often, organic discussion. In practice, COI is an antidote for what Maxine Greene calls “the legacy of positivism” in which “children are perceived as human resources rather than persons.”6 In traditional educational models, children are often regarded as crude materials to be shaped according to external demands which are defined by others. In its best exemplification as an effective educational method, COI is based upon an enduring respect for the personhood of its student participants and constructs a “democratic community that is accessible to the young...[based upon] shared meanings, common interests and [participatory] endeavours.”7 Greene speaks to a common concern shared by some educators and philosophers associated with the Philosophy for Children movement; that is, children’s philosophical abilities are often overlooked and children are often marginalized and excluded from important human conversations. The most caring and well-intentioned adults often overlook the childish propensity for philosophical reflection.

COI, on the other hand, represents a recognition that children do engage in philosophical reflections, often unidentified and overlooked. COI is a venue that cultivates and encourages children’s natural philosophizing. Matthews speculates that:

so much emphasis has been placed on the development of children’s abilities, especially their cognitive abilities that we automatically assume their thinking is primitive and in need of being developed toward an adult norm. What we take to be primitive, however, may actually be more openly reflective than the adult norm we set as the goal of education. By filtering the child’s remarks through our developmental assumptions we avoid having to take seriously the philosophy in those remarks; in that way we also avoid taking the child and the child’s point of view with either the seriousness or the playfulness they deserve.8

It is the imaginative, philosophical playfulness that inheres in COI that I wish to examine in this paper. Conceptual play demonstrates an isomorphism between belief and imagining that informs the process by which children develop a grasp of philosophical puzzles. In particular, how does an epistemology of conceptual imagination and play figure into the Community of Inquiry when doing philosophy with children?

II.

As an elemental aspect of childhood, play is acknowledged as a fundamental right supported in the Convention on the Rights of the Child.9 Theorists increasingly note the close correlation between learning and play in child development. Sara Smilansky, who studied child development in the 1980s, discovered that imaginative play is an essential tool for cognitive development.10 Another researcher in early childhood education, Vivian Paley, observes that important play behaviors are taught by children to one another. She discovered that “…the brightest kids make the most out of fantasy play. They set up a level of creativity that others follow.”11 She identified strong cognitive connections between imaginary play and progress in analytical thinking. Both Paley and Maxine Greene, recognize the erroneous assumption on the part of educators who fail to recognize imaginative play as an important component of intellectual growth in children.12
Other thinkers note the tendency to sideline the importance of the imagination in education. Greene appeals to John Passmore’s description of imagination as a process of learning that includes original and inventive cognitive strategies the student may not have been directly taught. Student innovation goes beyond direct instruction, a creative capacity based upon student imagination.

Maxine Greene’s research affirms the importance of imaginative activity in rational development in children and makes sense of diverse experiences that may oppose or supplant their own interpretations of reality. It is through imagination that children understand the limitations of their own experiences and the possibilities that outrun experience. Children who attempt to make sense of their own experiences, who learn to be in the world in certain ways, depend upon imagination, and by extension, the construction of imagined worlds. Imagination opens up a plurality of experiences as children learn to access the “great community.” Lev Vygotsky’s important work in the area of children’s cognitive development is predicated upon the capacity of children to imaginatively innovate in ways that go beyond direct instruction in what he calls the “zone of proximal development.”

Brian Sutton-Smith, an important play theorist, agrees that imagination, as it contributes to day-dreaming, pretense, and fantasy, is an activity of the playing mind and that children develop curiosity, as well as other cognitive faculties, through play.

Sutton-Smith’s research reveals other important insights concerning the place of play in the intellectual, social, and moral growth in children. Directed imaginative play is a vehicle children use to solve problems and make contextual sense of their lives. Clearly, children’s play is often a reflection of their social situations, their relative disempowerment in the adult world and enables them to balance their appreciation of general life conditions. Much of children’s play is directed at addressing issues of hegemony and hierarchy and is an instrument that contributes to a child’s emerging autonomy.

Many philosophers have acknowledged the life-long interdependence between education and play. Indeed, Joseph Dunne notes that the Greek words for play (paidia) and education (paideia) have the same etymological root, which is the word for child (pais). While some educators dismiss children’s play and stories as just so much aimless imagining, they often belittle and correct imaginative children in order to direct the child to more productive, reality-based learning activities to counteract what is perceived as fruitless imagining. Piaget, for example, discourages childish imaginings as a trivialized “romancing.” Gareth Matthews observes that the stance employed by developmental psychology shapes presumptions about children’s abilities and influences subsequent interpretations of child behavior. If developmental psychologists assume certain limitations of child cognition when compared to adult capacities, the natural supposition is that it is a mark of ignorance, conceptual limitation, and incompleteness. As Matthews observes, an “unfortunate result of this is that it predisposes one to ignore, or misunderstand, the really imaginative and inventive thinking of young children. If one is predisposed to rack up “oddball” questions and unpalatable conclusions to cognitive incompetence, one will miss much that is interesting in what children have to say to us.”

Progressive educators increasingly recognize the deep connection between learning and play, and even more importantly, that children like to play. Consequently, educators introduce educational
games into the curricula. The unfortunate result is that such teaching often becomes contrived and trivialized, and ultimately suppresses native creativity in children. An associated peril in this approach is that it preserves adult domination and control of childish learning which amounts to a patronizing and condescending view of play in the curriculum, and by extension, children’s directed activities. Among exceptions to such trends are Maria Montessori’s approach and Kieran Egan’s approach to incorporating imagination in education. As Dunne notes, educational models, such as Montessori’s and Egan’s, combine work and play in an effective and unified approach to children’s learning. He also adds that while philosophy with children is different from learning activities in Montessori and Egan, they are alike in viewing learning and play as conjoined activities.

Montessori and Egan regard children as essentially imaginative creatures who make epistemic sense of experience through the inventive constituents of cognition. On their views, imagination is a component of the rational understanding, foundational to children’s ability to make sense of the world. In addition, studies of the psychology of imagination in children recognize the social advantage of imagination that allows children to envision alternate states of affairs that might model better worlds and more inviting social environments.

Imagination is fundamental to understanding and acknowledging other cultures and the development of empathy, a moral emotion critical to grasping what it is like to be another person. The philosopher, Rosalind Ladd, observes that a child’s trajectory from dependence to moral autonomy depends upon her cognitive facility with moral reasoning. She calls this a kind of moral apprenticeship, but clearly, such cognitive acts depend upon imagination to establish modalities in moral understanding.

Imaginary play returns significant cognitive and social results in classrooms where it is encouraged. Says a kindergarten teacher who took such play seriously and extended the time allotted for play in her classroom, “There is more time to be kind, to solve problems by imagining in different ways, to include more kids and let them have a say.” The result in this classroom was that children became nicer to each other, shared more, became more cooperative, and more empathetic to other children who might otherwise have been marginalized. Paley notes that although we might expect fantasy play to interfere with purposeful educational activities, her research indicates that it helps children to become more open-minded about alternate states of affairs.

Epistemologically significant in understanding the machinations of philosophical inquiry, imagination figures into the comprehension of fiction, empathy, possibility and necessity, hypothetical reasoning, creativity and a range of other philosophical operations. In this respect, the cognitive capacity to conceptualize alternate states of affairs is crucial. The importance of imaginative activity in cognitive development allows children to make sense of diverse experiences that may oppose or even displace their common-place interpretations of reality. It is through imagination that children recognize the epistemic and metaphysical limitations of real-world experiences that are challenged by modal possibilities that outrun experience. Children who attempt to make sense of their experiences depend upon imagination and, by extension, the construction of counterfactual worlds.
Imaginative, playful conversations may, at first glance, seem like so much spoken nonsense, yet targeted, philosophical conversations with children amount to a special kind of play: conceptual play. Children, who are engaged in philosophical discussions, offer playful treatments of semantic expectations, “reversal and inversion, exaggeration, paradox, playing with semantic boundaries, playing with space, and playing with time.” The creative use of language is often evidence of such imaginings.

Philosophical play exhibited by children in well-designed COI dialogues, represents a classic form of dialectic. The play theorist, Sutton-Smith notes that:

...the center of play’s dynamism is a dialectical relationship between its enactments and their everyday references. Pretense and imagination are predicated upon the creative use of language and the child may use words beyond their conventional usage. Words used in make-believe and pretense may be used in a secondary, rather than a primary sense in such a way that the conceptual force of the latter derives from the former. Play may be a paradox in communication terms (it is and it is not what it says it is) but play also involves maintaining the referential paradoxes throughout.

Other theorists note that children are capable of such imaginings and rarely confuse actual semantic relations. Michael Pritchard records a delightful conversation between grade school children who consider similarities and differences between humans and computers. They use various imaginative devices such as analogies and counterfactual conditionals (“If it could think....”). The upshot is they puzzle over thinking and meaning and consider various possibilities about human and computer thinking, as well as words and referents.

Likewise, the children in Michael Pritchard’s COI groups illustrate such sophisticated use of language in imaginary cognitive play. Pritchard’s reflections support David Suits’ observation that: “Language itself gives us experiences, not so much by manipulating our sensory environment, but by focusing our attention....we are being presented with what, at the moment, are taken to be truths. That is to say, language has authority, so that what we read and hear has some tendency to direct our desires, beliefs and emotions.”

What is it that children do when imaginatively engaging in philosophical play? Very often, they construct thought experiments, expressed as imaginable states of affairs. Maxine Greene alludes to thought experiments as the architectural base of critical communities which should ground our teaching and learning. Such communities, according to Greene, open student imagination to alternate views, values, and perceptions. In the context of such communities, thought experiments are an important instrument for children as they learn.

Gareth Mathews, when considering “thought experiments” as a fundamental philosophical tool in philosophical conversation (COI) with children, writes: “[they] invite us to consider situations different from our everyday experience, even worlds unlike the familiar one about us....Thought experiments are often a good way to trace conceptual connections and ruminate on philosophical puzzles.” Intellectual adventure that stimulates children to imaginatively develop thought experiments allows them to consider philosophical issues from alternate perspectives. The classic
thought experiment is a kind of philosophical make-believe that turns on conceptual possibility.\textsuperscript{38} Despite a dearth of research on the place of childish imagination in the curriculum, educational theorist, Kieran Egan, recognizes the educational efficacy of thought experiments when he asks children to imagine some state of affairs and draw out relevant inferences.\textsuperscript{39} Indeed, a profound and creative imagination, couched in powerful thought experiments, is important to learning. Within such imaginative and linguistic contexts, children are well able to detect coherent sets of propositions and, conversely, to identify incoherent sets of propositions, the stuff of philosophical thought experiments.

As we see, children are quintessentially inventive creatures, who often make sense of experience by resorting to imaginative capacities. David Hume observed that imagination is a cognitive state that brings into cognition the ability to transpose and change ideas that open alternate courses of experience and advance human understanding.\textsuperscript{40} Just so, children often construct imaginary states of affairs using sophisticated logics and frame them in classic thought experiments. Human learning, in general, is advanced as epistemic agency imaginatively offers alternate perspectives of experience by resorting to imaginative capacities and cognitive states that turn on the ability to transpose and change ideas.\textsuperscript{41}

Thought experiments in COI reveal childish facility with complex belief structures. Philosophical thought experiments depend upon imagination, which are subject to rules of inference. Timothy Williamson notes, “although empirical knowledge constrains the attribution of essential [metaphysical] properties, results are more often reached through a subtle interplay of logic and the imagination. The crucial experiments [that figure into philosophical understanding] are thought experiments.”\textsuperscript{42}

III.

Useful thought experiments turn on contrary-to-fact conditionals, imaginative use of propositional content, conceptual possibility, and doxastic inferences.\textsuperscript{43} Children who are doing philosophy in the setting of COI are doing just that. They engage in a kind of conceptual play driven by thought experiments as epistemic vehicles. Such thought experiments illustrate their conceptual competence with moral, scientific, epistemological, and metaphysical concerns. Conceptual play of this kind amounts to a tool for acquiring knowledge that circumvents empirical entanglements. That children are able to effectively engage in philosophical thought experiments as they exercise complex epistemic abilities indicates their ability to appropriately use relevant concepts and counterfactual conditions they may never experience in the real world. In curiously mature ways, even very young children correctly work through thought experiments to illuminate comprehension about realistic and non-realistic situations.

Just as real world knowledge supports children’s pretend physical play, it supports conceptual play. The child’s ability to playfully imagine the world one way while recognizing that it is another functions as a skillful symbolic pretense. It is noteworthy that empirical data derived from studies with small children make it clear that children rarely resort to “representational abuse”\textsuperscript{44}, which is a matter of confusing imaginary states of affairs with actual states of affairs. For instance, child subjects, some as young as fifteen months old, who imagined a particular state of affairs, such as pretending
an overturned cup represented a “spill,” did not think the table would be wet in the real world.46 Children recognized that such propositions make perfect conceptual sense, but did not feel bound to imagine metaphysical falsehoods.47

Play among children often involves some measure of pretense about the existence of certain counterfactual states of affairs. Rational comprehension is enhanced as children develop competence with relevant fictions, especially as they recognize justifiable inferences and coherent imaginary states of affairs. Experimental and theoretical evidence supports the observation that imaginative inferences bear structural similarities to belief inferences and represent an important subcomponent in the epistemology of counterfactuals.48 The isomorphism between such inferences situates inferred rules that allow us to configure imaginative scenarios in ways that make sense.

To explain this capacity, Shaun Nichols and Stephen Stich postulate a kind of “belief” box in which the knower commits to the truth of belief X. Opposed to this is a “pretense” box which includes beliefs about imaginable states of affairs.49 A counterfactual conditional takes the form: If X had been the case, then Z would have been the case.50 They use their “belief box” to offer an explanation of the cognitive mechanism that explains the connection between representational belief and pretense mechanisms (imagining) that can be applied to epistemic processes employed by young children. Nichols and Stich hypothesize a “single-code” that explains parallels between the mechanisms that process information from both imagination and belief and assert that “pretense representations are in the same code as belief representations.”51 Says Nichols “…if a mechanism takes pretense representations as input, the single-code hypothesis maintains that if that mechanism is activated by the occurrent belief that p, it will also be activated by the occurrent pretense representation that p. More generally, for any mechanism that takes input from both the pretense box and the belief box, the pretense representation p will be processed much the same way as the belief representation.”52 The “pretense box” accounts for inference mechanisms that parallel real belief-forming mechanisms; “…to draw these inferences the child must be able to use real-world knowledge about the effect of gravity and so forth,[and] the inferences the child makes during pretense can somehow draw on the child’s beliefs.”53

This means that beliefs and imaginings used by children in thought experiments have similar content and follow a standard epistemic order. Ichikawa concurs: “Imaginative propositional attitudes are interestingly and importantly belief-like, but nevertheless comprise a distinct cognitive attitude from belief.”54 He also observes that when deploying epistemic concepts in actual cases, cognitive subjects likewise correctly apply the concept in counterfactual instances. Both Williamson and Ichikawa support thought-experiments as convenient vehicles for imagination, and serves children’s emerging cognitive abilities.55

Empirical studies support the contention that imaginative content is, to some extent, anchored in the actual world. An observation Nichols offers about Alan Leslie’s research is that nearly all of the children, in his now famous experiment could point to the appropriate cup when asked to indicate the empty one (a metaphysically appropriate claim) in the midst of a pretend tea party in which, under the pretense of the play scenario, some cups are “full” and some are “empty.” This further supports the contention that even in the presence of “bizarre and creative elements” that are
present in pretend play, certain mechanisms are in place, which allow children to make epistemically predictable inferences comparable to those made in real-life situations.\textsuperscript{56}

The epistemic toolkit children use in thought experiments is a feature of modal epistemology. Modal epistemology figures into nuanced understanding of knowledge about fictions, possibility, and necessity, and ultimately reflects coherent imaginations that suggest everyday belief formation. An important focus of modal epistemology is the manner in which an epistemic subject can know non-actual propositions to be possible.\textsuperscript{57} So, for example, it may be metaphysically impossible that X, but it is, nevertheless, coherently imaginable and conceptually possible.\textsuperscript{58}

We often fail to notice that children routinely formulate time sequential and causal expectations when they “project the trajectories of nearby moving bodies into the immediate future.”\textsuperscript{59} In other words, they can play “catch” with balls and other toys. In the same vein, when Danielle imagines that Robert struck the match, she is justified in inferring that the match lit. A similar cognitive phenomenon occurs when children make hypothetical inferences on the basis of a counterfactual state of affairs to a counterfactual consequence. Making such an inference reveals a complex judgment about counterfactual states of affairs. Children are well capable of making such hypothetical inferences based on the assessment of counterfactual propositions.\textsuperscript{60} Such hypothetical inferences are not necessarily a consequence of instruction, but reveal the child’s natural capacity for counterfactual reasoning. Children exhibit a capacity for rational inference-making early in childhood.\textsuperscript{61} Indeed, patterns of reasoning in which children engage while in the context of pretense, mirrors their reasoning in non-imaginative contexts.\textsuperscript{62}

These observations are borne out by Gareth Matthews’ accounts of COI conversations he participated in with children at an art school in Scotland.\textsuperscript{63} The conversations reveal the concentrated epistemic skill grounded on the correspondence between possibility and imagination. The children who were part of his COI group exhibited sophisticated cognitive coherence between imagination and belief. A close examination of the conversations reveals a kind of epistemic frolicking based on imaginative inferences and counterfactual states of affairs.

Elsewhere, Matthews recorded an account of a three-year-old boy’s conversation with his father. The little boy, named Steve, addressed his dislike of bananas, saying: “If you were me, you wouldn’t like bananas either.” Steve correctly used the subjunctive form of the verb, to be. After a moment’s reflection about this imagined scenario, Steve then asked: “Who would be the daddy?”\textsuperscript{64} Gareth Matthews queried Steve’s father about this account because Steve correctly used a complex semantic construction that revealed his capacity to imaginatively take up the standpoint of another person. Although Steve might not be able to express the tacit propositions and argument structure of his expression, his simple wondering is an example of a counterfactual conditional—at three years of age. Only recently have logicians begun to puzzle through a sub-discipline of philosophy known as “possible-world semantics” which is captured in Steve’s three-year-old musings about an even more arcane enigma, that of a “counterfactual identity,” expressed in his “if you were me…”\textsuperscript{65} The point we may take from this example, and others from accounts of COI, is that children, even very young ones such as Steve, are puzzling through modal possibilities, counterfactual states of affairs, and
hypothetical inferences, usually quite capably, and employing sophisticated semantic and epistemic structures to do so.

What we may ultimately learn from such conversations is an insight into hitherto overlooked rational capacities on the part of children that reflects an unsuspected semantic and philosophical sophistication. Philosophers and educators have important work to do as children are included in thoughtful and respectful philosophical discussions. Especially in the context of COI, we find a philosophically productive opportunity to really listen to children. Burgeoning accounts indicate philosophers are uniquely situated to recognize the epistemological capacities and metaphysical musings of children and to encourage their capacity for philosophical thinking. The benefits of such encounters are manifestly important in pedagogical and, even, moral theory. What may be even more important is the recognition that children, traditionally excluded from, and dismissed by the philosophical community, may have recognizable philosophical abilities and a legitimate place at the philosophical table.

ENDNOTES

1 The P4C movement assumes that children are able to engage in productive philosophical discussions and often do philosophy well and do it productively. I skate past a debate about the efficacy of such dialogues which has been admirably argued by Gareth Matthews, Matthew Lipman, Matthew Pritchard, Ann Margaret Sharp, Maughn Gregory, Jen Glaser, and Jana Mohr Lone.


4 David Kennedy terms this activity a Community of Philosophical Inquiry (CPI), Kennedy, Philosophical Dialogues with Children: Essays on Theory and Practice (Lewiston: The Edwin Mellon Press, 2010), 97.


7 Ibid., 33.


12 Ibid., 49; Greene, 54.


14 Greene, 14.

15 Lev Vygotsky remarks upon the trajectory of student ability in Thought and Language, translator,Alex Kozulin (Cambridge: MIT Press, 1999), 187.

16 Greene, 54.


18 Vygotsky, 189.


20 Ibid., 36.

21 Ibid., 114.
26 Dunne, 17.
27 Rosalind Ladd’s observation about moral development can reasonably apply to intellectual development in general.
28 Swedish “Play Schools” capitalize upon this observation. The curriculum is entirely driven by children’s play and found to be successful for later learning as academically oriented pre-schools.
29 Paley, 54.
30 Ibid., 26.
31 Greene, 54.
32 Sutton-Smith, 148.
33 Ibid., 196.
34 Pritchard, Chapter 8.
36 Greene, 198.
37 Matthews, Philosophy and the Young Child, 74.
38 Jonathan Ichikawa, Imagination and Epistemology (PhD diss., Rutgers University, 2011), 88.
42 Hume, 52.
43 Williamson, 19.
44 Propositional imagination depends upon a representational theory of mind, which views beliefs as internal representations. On this view, “to believe that p is to have a prepresentation token with content p, stored in some functionally appropriate way in the mind.” (Shaun Nichols, editor, The Architecture of the Imagination: New Essays on Pretense, Possibility, and Fiction (Oxford: Clarendon Press, 2006), 5) Such learning is composed on the back of conceptual possibility grounded on coherent states of affairs that employ contrary-to-fact conditionals.
46 Ibid.
47 This is an insight we gain from Saul Kripke who is skeptical about the notion that what may be conceptually possible is an indicator of metaphysical possibility. Saul Kripke, Naming and Necessity (Oxford: Basil Blackwell, 1980), 142.
50 As Ichikawa notes, it is also possible to have a true antecedent and a counterfactual consequent. An indicative condition takes the following form: If X is the case, then Z is the case. The truth value of a counterfactual is not fixed by the truth value of its consequents and antecedents. Ichikawa, 144-145.
52 Ibid.
53 Ibid., 130.
54 Ichikawa, 155.
55 Ibid., 72.
56 Nichols, 130.
57 Ichikawa, 79; Kripke, 144.


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