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Little Philosophers: Assessing and Prompting Philosophical Reasoning with Children

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LITTLE PHILOSOPHERS: ASSESSING AND PROMPTING PHILOSOPHICAL REASONING WITH CHILDREN

by
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ABSTRACT

There is a debate in academic philosophy and psychology of whether or not children can or should do philosophy. Robert Kitchener asserts that due to cognitive limitations, children under the age of 10 cannot think philosophically (Kitchener, 1990). Murris (2000) challenges Kitchener's arguments and concludes that more research is needed. Further, this is a period during which children show individual differences and development in cognitive capacity, specifically within executive function relating to conscious control that may influence abstract thought (Zelazo et al., 1997). The present study assessed 7- to 9-year-olds' and adults' ability to answer philosophical questions in relation to a child-friendly story. We examined whether differences in executive function relate to adults' and children's ability to contemplate philosophical questions, what children's abilities looked like in comparison to adults, and whether prompting adults with questions related to issues of conformity and morality will influence their likelihood of conforming when presented with a later conformity task. We found that working memory and classification in college is related to higher philosophical scores in adults and vocabulary is related to higher philosophical scores in children. Despite differences in cognitive development, the children tested outperformed the adults on the philosophical reasoning task. The adults did not show differences between the non-philosophically questioned participants and the participants that received the philosophy questions on the conformity task. Our results support the theory that children, even those under the age of ten, can engage in philosophical discussion.

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Part I: A Contemporary Debate

The question of whether or not children are capable of thinking philosophically has been around for quite some time, and is still being fiercely debated. In this first part of my thesis, I'll outline the way this issue is being currently debated by carefully examining an argument between two contemporary philosophers of education. Richard Kitchener (1990) in "Do Children Think Philosophically?" argues that children do not have the capacity for philosophy. Karin Murris (2000) in "Can Children Do Philosophy?" takes the opposite approach and argues that, when philosophy is properly understood, there is no reason to assume that children cannot philosophize.

I believe that Murris wins this debate, and, in the course of summarizing their respective views, will offer a number of reasons to conclude that she offers the stronger argument.

I.1 Kitchener: Children Cannot Philosophize

Kitchener bases his argument against children's abilities to engage in philosophy solely on psychologist Jean Piaget's writings. Piaget argues that children are simply not cognitively developed enough to engage in philosophical thought and conversation. There are, of course, cognitive abilities that do develop with age, such as executive function. Executive function refers to a multitude cognitive processes, such as cognitive flexibility and working memory. These processes can be tested, for example, through a series of tasks in which a participant must alternate between applying different rules or repeating a series of numbers backwards. More controversially, Piaget believed that philosophical reasoning is also a cognitive ability that only develops with age. In order

to engage in philosophy, one must be able to "examine lower order beliefs, statements and actions… children below, say, 10 years of age cannot, according to Piaget, think philosophically… one must be able to be sufficiently reflective, to engage in meta-cognition, to 'think about thinking,'" (pp. 419-20). With this quotation, Kitchener outlines what he believes is required of philosophical thought and reasoning. Children, according to Kitchener, simply cannot philosophize because they have not developed the cognitive skills to reflect on their opinions and thoughts.

Kitchener, following Piaget, calls such reflective skills, "formal operational thought" or reasoning in a "fully formal-deductive way." He writes: "According to Piaget, younger children can engage in concrete operational thought, but not formal operational thought. They cannot fully engage in abstract thought (only concrete thought); they cannot consider all possible hypothetical outcomes of an idea," (pp.419). Simply put, they are unable to engage with abstract and complex concepts. Kitchener agrees with Piaget that children lack this seemingly fundamental cognitive ability that is necessary for philosophical thought.

But this argument that children cannot engage in "formal" thought is not the only argument for his view. He also states on page 421 that, "[children] have no adequate conception of what it is for something to *be* adequate evidence, nor how *certain* evidence must be before one can be said to know it." Based on that judgment, philosophical thought is possessing not only a certain type of knowledge of something, but also possessing the ability to reflect upon it. This differs from the formal thought argument by asserting that children lack the necessary knowledge of an idea that is

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required to reflect upon it. Because they lack the basic knowledge of an idea, they can neither engage in concrete nor abstract thought.

Kitchener also argues that the reason people think children can do philosophy is that they mistakenly confuse doing philosophy for thinking critically. He notes there is much debate about what it means to do each of things and clarifies his perspective. What he calls "lower-order logical thinking" refers to deductive and inductive reasoning skills and is synonymous to what people refer to as "critical thinking." What is concerned with philosophy, Kitchener claims, is a different type of skill set called "higher order thinking." This involves a more complex cognitive function that involves "nuanced judgement, self-regulation and imposing meaning… children can engage in lower-order critical thinking, [they] cannot engage in this higher order thinking," (pp. 421). He concludes that "critical thinking is necessary but not sufficient for doing philosophy," (pp.423). With this, we have established that abstract formal operational thought is required for philosophizing, but it is not sufficient for it.

Finally, Kitchener argues that children cannot lead the sort of life requisite of genuine philosophy. Philosophical thought demands not only the developmental ability of abstract, formal operational thought, but applying it and making it central to how one leads his/her life. This, according to Kitchener, is what adult philosophers do. They take abstract ideas, generalize those ideas across everyday life, and apply them in accordance with decision making. They are able to reflect on their beliefs and actions and engage in "meta-cognition, to 'think about thinking,'" (pp.420). Kids, after being

taught philosophy, merely forget about such lessons and do not lead their lives in a philosophical manner, according to Kitchener and Piaget.

In summary, Kitchener has offered the following arguments: 1) philosophical thought is formal thought, and children lack the capacity for formal thought; 2) philosophical thought requires recognizing evidence as evidence, and children have no such meta-cognitive ability; 3) even though children can think critically, their critical thinking is not sufficient for philosophical thinking; and 4) unlike genuine philosophers, children cannot lead a truly philosophical life.

I.2 Murris: Children Are Proto-Philosophers

According to Murris, philosophy should not be thought of as a "body of knowledge," but as a "method of enquiring into very fundamental questions that do not yield to the methods of science," (pp. 261). This, simply put, means that philosophy should be taught as a *way of thinking* rather than its own distinct discipline. Murris claims that the debate of philosophy, as pertaining to children, is particularly confounding due to these two very different concepts of 'doing' philosophy. She reasons that "children can, and do, pick up 'the general spirit of activities', and thus are being taught a philosophical form of life… [they] are introduced to philosophical issues and commitments… that make philosophical discourse possible," (pp. 263). By encouraging reflective and inquisitive thought, we can teach children *how* to think philosophically.

There is no doubt in my mind that Kitchener would disagree with this view. He claims that children are not able to lead a philosophical lifestyle due to their lack of

meta-cognitive abilities. Murris claims that they are leading a philosophical life, just in their own way as their cognitive development allows. But Kitchener would surely say that she is oversimplifying the matter in order to defend the claim that children can do philosophy. I believe Murris could easily respond to such skepticism with, "If thinking of philosophy in this particular way is, in fact, 'oversimplifying the matter' what would be the issue with that? We oversimplify concepts of every subject in order for children to understand. Why should philosophy be any different?" To understand this, let us look at the education system. When children enter school, they are taught a simple concept that acts as a foundation for that subject. For example, you do not teach a pre-kindergartener calculus. You must first teach them how to count, then how to add/subtract, then how to multiply/divide, etc. Only after a student understands how the basic and necessary functions of math work do you move on to complex mathematical concepts. Similarly, an adult that is fully developed but has not been taught these functions could not solve even a basic calculus problem. This, I believe, is how Murris is thinking about philosophy. Children should be exposed to philosophical ideas and reasoning at a young age so that this meta-cognitive ability is encouraged to fully develop. Philosophizing should be looked at a growth process, such as math, not an after effect of development that should be delayed until adulthood.

Murris directly challenges Kitchener's claim that children lack a meta-cognitive level reflection; she disputes that they cannot "think about thinking." She writes: "In contrast to non-philosophically trained children and adults, philosophically trained children do have an inclination to think about their own thinking in that they think and

talk about their ideas and relate them to what other children have said, showing the structure of the dialogue as they speak," (pp. 262). Even Kitchener seems to acknowledge that children can sometimes think in this sense, however, he refutes that it is evidence of their capability.

Kitchener, in the face of such examples, nevertheless claims that they are not doing "real" philosophy, and denies that these examples prove that children are "philosophically trained." Kitchener looks at cases of "philosophical" dialogues with children not as 'doing real philosophy,' but simply as incidents of "philosophical one-liners" (Kitchener, 1990, pp. 426) that show no evidence of anything other than concrete philosophical ability.

Murris makes a number of insightful responses to Kitchener's claim that students are simply giving "philosophical one-liners" rather than engaging in sustained philosophy. First, even if we were to agree that children are not doing philosophy in the full sense of the word, "… the conclusion does not follow that children should not be taught philosophy. After all, primary school children do not 'do', for example, mathematics or history as capably as professional mathematicians and historians. Does it, therefore, follow that either they do not do 'real mathematics or history, or that they should not do those subjects?" (pp. 263). Murris is pointing out a flaw in Kitchener's argument: it is a non-sequitur to say that because children cannot, using my previous example, engage in calculus that they should not be taught math. I feel as though the opposite would be intuitive, that in order for one to eventually and fully engage in

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calculus to the best of their ability, that it is imperative and necessary for the
foundations of calculus to be taught at every level of development.

In response to Kitchener's argument that children cannot engage in a
philosophical life, Murris counters that he has assumed an overly restrictive conception
of philosophical reflection, and falsely believes that the philosopher must be someone
who, in complete isolation, engages in solitary thought. Murris says "only questioning
will bring out to what extent [children] are capable of sustaining this philosophical way
of thinking… if children are 'questioned on a one-on-one basis about their comments'
and could 'elaborate upon their views, and rationally defend them'" (pp. 264). One of
the main weaknesses in Kitchener's argument is his claim that children cannot partake
in a philosophically based conversation. If we are not encouraging this behavior with
them, how do we expect them to? We must involve them in this type of conversation
and instead of taking their "philosophical one-lines" as a sign that this is their
philosophical limit, lead them to further examine them. Murris believes that Kitchener
is excluding the value of group thought and that children's ability to question and
defend one another should also be considered as exhibiting philosophical thought. This
kind of group reflection has long been considered a kind of philosophical reflection;
after all, this is what we see with the Socratic method and in much of Plato's works.

I think Murris could even press this point further: what if the way children do
philosophy together and in joint dialogue is actually *better* than only leading a solitary
philosophical life? This is the view of Gareth Mathews who says that children are
natural philosophers and that cultivated adult philosophers would be better at engaging

with philosophy if they had more of the natural innocence of a child (pp. 266).

Moreover, following Ludwig Wittgenstein's proposal that misconceptions of language create philosophical problems, Mathews argues that by introducing philosophical ideas at a young age, we would be helping to avoid later, unnecessary problems. Because they have not yet formed biases, children can philosophize without misconceptions (pp. 266).

This idea, could of course be challenged as well. Someone with the same viewpoint as Kitchener could argue that even if children have basic cognitive ability, and can engage in some joint dialogue, they will still not have enough experience of reality to be able to philosophize about it. For example, children can discuss morality, but because they do not have extended experience with moral dilemmas and consequences thereof, they are not able to thoroughly explore the philosophical ideas of morality.

Murris anticipates that someone might make this very argument on page 267: if knowledge comes from experience, then children, according to those whose views align with Kitchener, cannot do philosophy due to their lack of sufficient experience. Murris has a response to this worry: "it does not follow that they do not have sufficient experience to reflect, or that philosophical reflection will not help them make their experiences more meaningful to them," (pp. 267). It is obvious that children have significantly less experiences that adults, but it does not stand to reason that they are unable to reflect on (the admittedly limited) experiences they have undergone.

Murris also draws on John White's view to refute the charge that children do not have enough experience for philosophy. White claims that the context of the question and the intention of the questioner is essential in determining whether a question holds philosophical thought (pp. 268). Regardless of experience, the intent of the child is what is determinant of engaging in philosophical thought. "Philosophical concepts distinguish themselves from those of everyday life by their generality, by their abstract character, but especially by their complexity… the class of concepts enquired into by children, however, is larger than that of traditional philosophy," (pp. 269). While children have not experienced enough to fully partake in abstract philosophical ideas and the consequences thereof, they can still think abstractly about the experiences they have had, and the hypothetical situations they have entertained.

Moreover, although I agree with White that children are entertaining a larger class of concepts than adult philosophers since they are generating broad questions themselves, I do not agree with White that genuine philosophical thought necessitates complexity. Ideas can be simple and philosophical, such as good versus bad actions. Are the questions that follow an idea, then, what makes a thought philosophical? Or could these two notions be independently philosophical? This requires further thought that Murris did not explore.

In summary, Murris combats Kitchener's first claim that philosophical thought is formal thought, and children lack the capacity for formal thought by arguing that philosophy should be thought of as a method of enquiry, not as a separate body of knowledge. Murris argues that Kitchener's second and third claim that philosophical

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thought requires recognizing evidence as evidence, and children have no such meta-cognitive ability to reflect, and even though children can think critically, their critical thinking is not sufficient for philosophical thinking is synonymous with the idea that while they are not mathematicians, they are capable of doing math. This idea emphasizes Murris' belief that philosophical training should be a process throughout one's life. Kitchener's last claim that, unlike genuine philosophers, children cannot lead a truly philosophical life is denied by Murris by her claiming that they are leading a life of philosophical inquiry as best their cognitive abilities allow, and this should not be dismissed as insufficient.

I.3 Conclusion

No one can doubt that age plays some role in determining the developing cognitive capacities. However, I have shown in this chapter that Kitchener makes an error when he infers from this fact that children cannot philosophize. His perspective, is as previously mentioned, founded on Jean Piaget's theory, which Murris also makes note of, that "children's reasoning will develop automatically as they get older," (pp. 270). But how, exactly, these cognitive capacities develop, and which cognitive capacities develops, is contingent on many factors, not age alone. To assume a simple story of development, instead of a complicated and contingent development, is to ignore decades of biological and psychological research. To make assumptions about philosophical ability based on the simple story is, I hope to have shown, also misguided.

Nevertheless, though I have shown that Kitchener's arguments that children cannot philosophize are weak, I have not provided much to support the claim that

children *can* engage in philosophy. Rather than simply knocking Kitchener down with Murris' counter-arguments, I would like to offer additional evidence that will support Murris's arguments and give us reasons to believe that children are philosophers. In Parts II and III of this thesis, I'll offer two positive arguments.

In Part II, I will offer a *historical* argument. Both Kitchener and Murris seem to think that the possibility of children philosophers is a very recent hypothesis. However, I will show in that the possibility for children philosophers has been recognized almost since the beginning of philosophy in ancient Greece. In other words, people from a very different time and place than our own seemed to recognize that children were philosophizing, and I think this can count as evidence to support my thesis.

In Part III, I will share results from a study that I have designed to test children's executive functions that was carried out in a cognitive and developmental psychology research lab. The study involves testing cognitive development through executive functions and a philosophical discussion in which children's responses were recorded and scaled, testing their ability to think freely for themselves. I believe finding the correlation in these aspects might be a way in which to gain perspective on the matter without conducting longitudinal experiments. The results of this study, I will argue, offer data which supports an *empirical* argument for my thesis that children under the age of ten are capable of philosophizing.

Part 2: Historical Argument

In the last part of my thesis, I asserted that to imply children are not capable of philosophical reasoning due to a lack of fully developed cognition is not a valid argument. I did so through the debate of Kitchener and Murris. Many people might assume that the idea of children philosophers is a very contemporary idea. They probably think this not only because children only very recently became the subject of extensive research (and only recently became protected by rights), but also because they believe that all the most famous philosophers reserved philosophy for adult activity.

In this part of my thesis, I'd like to show that the prospect of children philosophers is not simply a recent proposal. It has been said that, "The safest general characterization of the European philosophical tradition is that it consists of a series of footnotes to Plato," (Alfred North Whitehead, in *Process and Reality*), and I'd like to argue that Plato himself believed that children could philosophize.

In Plato's work *The Republic*, Socrates proposes finding what justice is in a perfect city so that justice can be found in an individual's soul. To do so, he imagines a perfect, luxurious, peaceful city in which all citizens are craftsmen in the field which they are best suited for. This, Socrates claims, is justice in the city (434c). A city of this nature would require a strong preventative measure against war. Warfare is a craft and therefore has craftsmen which are called the guardians. Socrates asserts that this craft being carried out well is critical to the success of the city: "… the guardians' job is of the

greatest importance, it requires the most freedom from other things, as well the

greatest craft and practice," (374e).

But the reason that the craft of the guardians is so important isn't just that the

city needs good soldiers for war. Rather, Plato thinks the best of these guardians will

eventually go on to serve as rulers for the entire city. Thus, because these guardians are

the foundation of the city and vital to its being ruled successfully, their upbringing is

essential in becoming the optimal guardians. Thus, the educational system he puts forth

is quite detailed and has specific goals for the different age stages.

Due to the way in which the educational system is set up, some might take it to

mean that one cannot philosophize until the final stage of 50+ years of age has been

reached and one has acquired a perfect understanding of the Forms. Ariel Dillon in her

paper "Education in Plato's Republic" states:

> Finally, at the age of fifty, those who have excelled in everything will perceive the
> good and will alternate philosophizing and ruling the city […] through a rigorous
> philosophical education, the city unshackles individuals and leads them out of
> the cave of ignorance and into the light of knowledge so that they are eventually
> able to go back into the cave and teach others.

One might infer this to support the idea of philosophizing after the age of fifty.

However, Plato never explicitly makes this distinction of when someone is able to

philosophize or that the final stage of education would be when one is able. In fact, I

believe he thinks the opposite. The basis of his educational system lies in the belief that

children have a natural inclination for philosophical thought. Plato constructed an

entire society, and this system, on the notion of children's intuitions. He aims at the

development of such intuitions, which could not be fostered if they are not already present.

I will argue that the way in which Plato sets up the educational system and what it demands of the children guardians is evidence that he believes children are capable of philosophical thought and that the system itself has merit in fostering such capabilities. First, I will talk about the attributes of the guardians. Second, I will discuss the different aspects of their education and argue that they are all philosophical in nature. Lastly, I will describe the different stages of their lives and how I believe their philosophical thought develops in each.

II.1 The Attributes of Young Guardians Include Philosophy

My first argument that Plato believes in philosophical children is very straight-forward: when Plato lists the traits that young guardians must have if they are to be successful, he lists "being philosophical" as one of the traits. He says that the attributes the guardians should naturally have to be considered best suited for the job include being "a lover of learning and a philosopher… [and possessing] spirit, speed, and strength" (376c). They are physically agile, strong, sharp-eyed, courageous, like a noble dog – gentle to those they know and violent to those they do not, spirited, and philosophical (375a – 376c). On the face of it, this looks like evidence that Plato attributes philosophy to children.

Now some readers, however, might protest that Plato is not here describing *genuine* philosophy in these passages. After all, Plato also calls dogs philosophical in the previous quotation – and one might worry that the dog-type of philosophy that Plato is

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attributing to the guardians isn't very philosophical. Consider this, why should what

might be deemed as a lower-level of philosophy translate to not philosophical at all?

There are lower levels of all subjects in education, does that make them less

educational, or more fitting for someone at that level?

Moreover, skeptics may argue that the "philosophy" Plato is finding in young

guardians is not genuine because it is being forced upon them as part of a rigid

education. Some skeptics might say that in confining them, Plato is taking away the

ability to choose between duty and temptation, and therefore they are philosophers by

force and not as part of a life-choice. However, whether their education is flexible or

rigid misses the point: Plato's goal is to describe an education that will optimally

develop these philosophical attributes. In order for the philosophical intuitions they

exhibit at a young age to evolve, and to prime them for such an involved and vital job,

guardians must be properly educated.   This is why Plato will not allow young guardians

to be distracted, and why he recommends such tight controls on story-telling. Without

such protections, Plato believes they would indulge in the evils of other citizens, such as

temptations and other actions associated with the appetitive portion of the soul (416c &

434d – 441c). Now we might disagree with Plato's educational tactics. But whether or

not this lifestyle is forced upon guardians is irrelevant to the point I'm making: Plato

believes the proper education can develop philosophical abilities.

The final worry a skeptic might have is that Plato's children are not genuinely

philosophical because they are malleable. Skeptics could say that because children are

inexperienced and feeble minded, they are not engaging in philosophical thought, but

questioning the workings of the world in order to learn how to operate in it. It is true

that Plato thinks of children as very malleable, in both mind and body, but this

malleability, I believe, does not hinder them as skeptics might pose. Even if this is the

case, I do not think it justifiable to write off their malleability and behavior as non-

philosophical. Rather, I think their malleability enables them to <u>better</u> grasp abstract

concepts. I believe their lack of preconceived notions and biases towards

epistemological and metaphysical subject matter allows them to think and reason

outside the boxes of social formalities. They can contemplate difficult challenges

presented to them and offer responses devoid of previously imposed influences, and

thus have genuine, self-articulated ideas.

II.2 The Philosophical Education of the Guardians

Next I will argue that the education that Plato proposes for young guardians – an education with is systematic and strategic – is squarely focused on developing a philosophical ability.

The first aspect of their education includes storytelling and poetry. Socrates recommends epics for storytelling because in comedies and tragedies there is violence, immorality, animals, forces of nature, etc. and the guardians should not imitate such acts. Instead, Socrates says they should imitate "people who are courageous, temperate, pious, free. . ." (395c4-5). Socrates suggests editing the content of stories so that children only see the gods as benevolent and heroes as courageous and selfless. I believe this is important to the development of their beliefs about their duties. The guardians must hold the safety of the city as their main priority and act courageous and selfless in all they do. They must not fear death or loss as some heroes in poetry fear the wrath of the gods and mourn the loss of loved ones. While the stories censor depictions that would provoke the imitation of such behaviors, the children are still challenged with epistemological, metaphysical, and even moral questions to foster philosophical thought.

Another reason Socrates recommends epics as opposed to plays, is that the talent of the actors could deter the guardians from their purpose. The guardians could grow to admire and imitate the actors, hindering their potential to become philosopher-kings. Socrates suggests that to avoid this, the storyteller should be "more austere and less pleasant" (398b). By controlling the style in which the guardians are taught, this

decreases the risk of indulging in temptations and imitations not in accordance with the ideals of guardianship. Childhood is the prime time for such ideals to be instilled.

I believe that epics would also be best in order to prevent centralization of thought. The children are free to form their own ideas about the issues, lessons, and implications of the stories as opposed to having the ideas acted out before them, which the actors might influence defectively (398b). By listening to the stories, they are able to focus on the abstract concepts rather than the concrete details (i.e., theatrical particulars), which might hinder their ability to recognize and think about the forms. Because Plato restricts storytelling to epics, it seems to suggest their energies and capacities would be channeled into becoming optimal guardians by giving them the freedom to form their personal convictions. Freely forming one's own ideas, opinions, and beliefs is the core of philosophical engagement.

The next part of their education is musical training. Speech, harmony, and rhythm are the features of songs that work together to induce specific emotions. While they will be trained in each of these areas and how they influence one another, they will not be trained in all types of music because the guardians are to remain temperate and courageous; they should not listen to lamenting or overly joyous music (399b). Musical training strengthens their sensitivity to melodies, rhythm, intricate harmonies, order, beauty, chaos, etc., which Plato believes is vital to them becoming optimal guardians. This musical training is philosophical because, I believe, it is the beginning of their training of the Form of the Good. If they can comprehend what is required of a perfect piece of music, they are enabled to discern perfections, imperfections, and shadow

copies as described in Plato's Allegory of the Cave (which I will expound upon in the last section). Plato states that "anyone who has been properly trained, will quickly notice if something has been omitted from a thing, or if that thing has not been well crafted or well grown… he will recognize the reason when it comes and recognize it easily because of its kinship with himself," (401e - 402a). To put plainly, due to their ability to understand and identify complex qualities in music, they can generalize it across other aspects of life. Taking an abstract concept and applying it is engaging in philosophical reasoning. Such a task is a high demand of cognitive capacity and because it is a crucial part of their early education, it is evidence that Plato believes them to be capable of philosophy at a young age.

The last component of their education is physical training, which is more complex than mere brawn. While strength is important, a buff athlete does not equate to a proper guardian. The guardians must remain healthy both in mind and body. This means they are not to indulge in appetites and desires, but to remain balanced. By combining the three elements of education, Socrates postulates that the guardians will be harmonized warriors (411e – 412a). If they were to only receive the storytelling and musical training, they would not be fierce enough and therefore not fit to protect. If they were to receive only physical/athletic training, they would become egotistical, savage, and imprudent. However, a poet-philosopher warrior would appreciate each aspect and be a well-rounded, fit academic. Plato's tenacity to educate the young in such a way that they develop into balanced and harmonized warriors, rather than

merely physically fit fighters, is another sign that he believes the young are capable of philosophical reasoning.

They must also partake in rigorous tests and trials to continue passed each stage. The tests are not only physical, but also emotional, intellectual, and psychological. I believe Plato's idea was that their previous philosophical priming allows them to pass these tests which hinge upon how well balanced their souls are thus far. 413c:

> … we must look for those who are the best guardians of the indwelling conviction that what they have to do is what they at any time believe to be best for the state. Then we must observe them from childhood up and propose them tasks in which one would be most likely to forget this principle or be deceived, and he whose memory is sure and who cannot be beguiled we must accept and the other kind we must cross off from our list. Is not that so?" "Yes." "And again we must subject them to toils and pains and competitions in which we have to watch for the same traits."

Without the educational system set up as it is, it would be unlikely for them to endure such tasks and become optimal guardians. Again, even at a young age I believe he thinks children and pre-teens are capable of withstanding intense cognitive testing due to the developed capacities of philosophical thought. 414c:

> … a good guardian of himself and the culture which he has received, maintaining the true rhythm and harmony of his being in all those conditions, and the character that would make him most useful to himself and to the state. And he who as boy, lad, and man endures the test and issues from it unspoiled we must establish as ruler over our city and its guardian…

If these natural inclinations for philosophy were not present and developed, they would not be able to progress in their training and would move on to another craft. I believe this is a physical manifestation of their philosophical training that implements their

capacities. The guardians have to incorporate their physical training into how they think about the city and justice. Without their philosophical training fighting would be pointless. It is not a lesson in and of itself, rather it is a compilation of all they have learned. Of course, with the advancement of the stages, it will be easier to determine the true philosophers. To reiterate, this does not imply that the earlier stages lack true philosophical engagement.

II.3 Philosophical Life-Stages

In Part I of my thesis, I argued that while children may not be engaging in higher-order thought, they are still philosophizing as best as their cognition allows. This is similar to how children are not mathematicians, but they comprehend mathematical concepts and are capable of applying and using them (Murris, 2000).

I believe we find this same idea in Plato's *Meno* and *Phaedo*. In *Meno*, Plato says that learning is remembering (81d) and in *Phaedo* that "knowledge does not come from sense-perception, we must have acquired it before we acquired sense-perception, that is, before we were born," (75b). Due to exposure to the Forms before birth, children can detect and engage in philosophy and with the Forms. Naturally, as an individual advances higher in the age stages, they are engaging in philosophical thought on a deeper and more meaningful level, but that does not negate the abilities of those in earlier stages. But it is significant that Plato's theory of learning as recollection implies that children – even new-born children – have access to philosophical objects of thought.

In the *Republic*, Plato describes the different stages of ideal education for different age groups and the corresponding curriculum:

Stage 1 Ages 1-15: Music, poetry, athletics. (I have already explained the philosophical nature of this stage).

Stage 2 Ages 16-19: Labors, studies, fears, compulsory physical training, coping with stress. In this stage, they are faced with physical, intellectual, psychological, and moral challenges. These would include, but not be limited to, athletic competitions, intellectual competitions (e.g., debates), facing and overcoming fears, and challenges to ascertain that they put the well-being of the city over their individual self-preservation. To conquer these exhaustive trials, they must rely on the training from the previous stage and their studies throughout this one. Their body, psychology, and soul must be well-ordered and in harmony with one another. Here we can see Plato attributing philosophical capacities of having their personal convictions challenged and acting in accordance with them and to the 16-19 year olds.

Stage 3 Ages 20-29: In this stage, they must try to unify their knowledge into a vision that culminates into the Form of the Good. This, Plato asserts, is the highest point of knowledge. They cannot fully comprehend the Form of the Good at this time, but they have a vision of how to get there and understand the importance of that.

Stage 4 Ages 30-35: In this stage, it is determined who can go beyond the realm of the mathematical sciences, using dialectic. For example, who can abandon the senses and

follow an argument logically? And, what is the relationship between beauty and justice, the one and the many, etc.?

Stage 5 Ages 35-50: At this stage, they must go into the city and hold an administrative job for 15 years. Examples of this would be an officer/general in the army, road efficiency and maintenance, grain distribution, etc. With this, they will be able to understand everything the physical world with an appreciation of the forms.

Stage 6 Ages 50+: This stage is the graduation to Philosopher King. They can think about the nature of the Good and how to implement the Good. One at this stage has a full grasp of the Forms.

We can see these multiple stages of education illustrated in the Allegory of the Cave and the Divided Line analogies. The inside of the cave is the physical world or the realm of opinion/becoming and probably the first two stages of education. The shadows on the wall are shadows/reflections/and other things you can sense and perceive. The objects that create the shadows are beliefs/physical objects and within the stages, the curriculum the guardians have learned are only copies/shadows/reflections of the Forms. The mouth of the cave is the division between the physical realm and the realm of intellect/ideas and being, this would be the tests they undergo to determine who carries on in the training. Outside of the cave is the realm of intellect and being; this is stage three where the guardians form a unified vision of all they have learned. The objects outside the cave are synonymous with thought and mathematics. Just passing this point would be stage four where they are challenged to think beyond mathematics and abandon the senses to contemplate the

Forms and non-perceptibles. This would carry over to stage five where they have acquired the knowledge to understand reality and the compresence of opposites with an appreciation of the Forms. Lastly, we reach the Sun which is symbolic of the Forms. In the last stage of the guardians' lives, they grasp the Forms in their entirety and implement them.

Significantly, the Allegory of the Cave gives us that much more reason to think that Plato believed in philosophical children. Children are inquisitive and curious (as was the slave that escaped the cave) and they have the capabilities and attributions within them to ascend the cave, to learn and grow, and enlighten others.

II.4 Conclusion

In this part of my paper, I have argued that there is historical evidence, in addition to contemporary thought, to support the idea that children are capable of philosophical reasoning. Due to the elements and implications of this educational system, I believe that those with inherent philosophical inclinations and intuitions could successfully reach a high level of philosophical skill. I do not believe that Plato would spend such a substantial amount of time sketching out this system and city if he did not hold the same belief to be true. Thus, I reject the largely mistaken claim that Plato did not believe children possessed the ability to engage in philosophical thought and this system is purely theoretical with no real application or value in implementation.

Part 3: Empirical Data

Murris concluded that further research needs to be done in the debate of whether or not children can do philosophy. Because much of the debate centers around children's cognitive development, I designed a study to assess both cognitive and philosophical reasoning skills. Empirical data on whether cognition is related to philosophic ability would be informative to claims against the encouragement of engagement in philosophical discussions with children in that they would clarify the level to which children are capable.

To assess cognitive ability, we used tasks that measure executive function (EF) and language. Executive function develops in the frontal lobe refers to the functions of working memory, cognitive flexibility, and self-control (Miyake et al., 2000). Working memory refers to the ability to hold and manipulate information in short term memory and cognitive flexibility is the ability to shift attention in response to different demands or to apply different rules in different settings (Miyake et al., 2000). These particular cognitive abilities were assessed because they are directly related to cognitive development. To assess philosophical reasoning, we used a child-friendly story with a series of philosophical questions meant to assess the ability to think in a philosophical manner. This measure was added to assess whether or not philosophical reasoning influenced everyday decisions of conformity and self-regulation.
There were three research questions addressed in this empirical section of my paper:

1) Is EF and language related to philosophical ability?

a. Kitchener (1990) bases his claims strongly on Jean Piaget's theory of cognitive development and asserts that due to their underdevelopment of cognition, children are unable to engage in philosophy. Murris says, "Merely assuming that childhood is connected to a particular biological, psychological or social age is unsatisfactory. It also limits cognitive development to include merely logico-mathematical thinking, and ignores imaginative development," (Murris, 200, pp. 272).

b. Given that both Kitchener and Murris discuss the importance of cognition in philosophy, I sought to provide empirical evidence linking the two together in both an adult and child sample. If they are linked, it would suggest that engaging children with philosophy should be scaled as is all other academic curricula.

2) How do children compare to adults in philosophical reasoning?

a. Murris (2000) assertion that children cannot do philosophy because they do not live a philosophical lifestyle is akin to saying children cannot do math because they are not mathematicians. To provide evidence of early philosophical reasoning I examined what level children were able philosophize on an age appropriate task compared to adults.

3) Does philosophical reasoning influence conformity behavior?

a. The reason for including this task is to see if they apply philosophical reasoning to everyday decisions (i.e., do others' choices influence self-regulation?) I think Murris and Kitchener would say one of the reasons

that philosophy is so important is that it lets you question things in your

everyday life and think about the world in a higher level, so I wanted to

see if that is the case with adults as well as children. .

III.2 Methods for the Empirical Study

Participants

Fifty-two undergraduates (37 female, 12 male) from a mid-sized state university

in the south ages 18 – 22 years (M_{age}=19.06, SD = .95), participated in the study in

exchange for course credit in an introductory psychology course.

Six children (5 male, 1 female; 1 Hispanic, 2 African American, 3 Caucasian) ages

7 – 9 years (M_{age} = 7.8 years, SD = .84), from a small town in the Southern United states

participated in exchange for prizes.

Procedure

Participants completed a battery of tasks in a fixed order examining executive

function (i.e., Dimension Change Card Sort Task, backward digit span), language (i.e.,

Wechsler's Abbreviated Scale of Intelligence Vocabulary Test), the ability to think

philosophically, and likelihood to conform. A sarcasm detection and faux pas

understanding task was also completed but was out of the scope of the present study.

Both children and adults completed the same tasks.

Measures

Dimension Change Card Sort (DCCS). This task measured cognitive flexibility by

having children switch between rules (Zelazo, 2006). Participants sat across from an

experimenter, who placed two metal sorting bins with two target cards affixed to the

bins (i.e., a blue bunny and red boat) facing the child. In pre-switch trials, participants

were presented with sorting cards (i.e., blue boats and red bunnies) and asked to

execute the first sorting rule based on one dimension (e.g., sort by color so that the red

bunny matched to the red sailboat target card). Next, participants were presented with

six post-switch trials in which they sorted the cards by the competing dimension that

required participants to view the stimuli in a different manner (e.g., sort by shape and

now match the red bunny to the blue bunny). Finally, the participants were presented

with 12 borders trials in which they were asked to sort by both color and shape

depending on whether or not the card had a border around the image (e.g., if the card

had a border, sort by color, if not sort by shape). The dimension of the pre and post-

switch was counterbalanced. The order of the cards was randomly determined with the

stipulation that no more than 2 of the same cards were presented consecutively, and

this random order was applied to all participants. Participants had to get 11 out of 12

trials correct to pass the borders trials, with the dependent variable being the number

of correct borders trials. The children were reminded of the rules for each card, the

adults were not.

      Backward Digit Span. This task was used to assess working memory by having

participants hold single digits in mind and manipulate them by repeating them

backwards (Carlson, Moses, & Breton, 2002). Participants were first presented with two

training trials where two numbers and the rule were presented (i.e., "if I say 1,2, you

would say 2,1. If I say 3,4 what would you say?"). If participants were incorrect on

training trials, the experimenter would correct them and present the trial again.

Participants had to pass training by correctly reproducing 2 numbers backward to move on to the testing phase, of which all participants did. In the testing phase, the number of digits participants had to reproduce backward started at a three-digit span and increased as participants progressed in the tasks. Participants were presented with three trials of each digit span (e.g., 3-digit span) before moving on to the next digit span (e.g., 4-digit span). Testing was terminated at a digit span of eight or when the participant gave three incorrect responses consecutively, with the dependent variable being the highest digit span.

Wechsler's Abbreviated Scale of Intelligence (WASI) Vocabulary Subscale. This standardized task appropriate for participants from 6 to 90 years of age assessed verbal intelligence by presenting a list of words to participants, which they had to define to the best of their ability (Wechsler, 1999). Participants' responses were scored based on the WASI criteria for each item. There were 27 trials possible and testing ended when participants received a "0" three consecutive times (e.g., answered I don't know or gave incorrect definitions for a word) or when they reached the 27th trial. Raw scores based on the highest trial reached and quality of definitions (Wechsler, 1999) were calculated.

Philosophical Reasoning Task. This task was developed to assess the capability of philosophical thought as described in Parts I and II, and examine how philosophical thought may influence later reasoning. Participants were read *Frog on a Log*, a story about a frog who is told to conform to a behavior (i.e., sitting on a log) and were randomly assigned to 2 conditions where they were either asked philosophical or factual questions about the story. In the *philosophical questions condition*, participants were

asked questions that were thought to employ higher-order and abstract thinking and reasoning skills (i.e., are they able to think beyond the limitations of the book and respond abstractly or generalize the material in the book to apply it to real-world situations, see Appendix A). In the *control condition* participants were asked memory and comprehension based questions at similar points in the story, but at a non-philosophical level (e.g., where does the frog want to sit?, see Appendix B). This allowed for a comparison group of individuals to examine how philosophically consideration of a story may influence later thought compared questions that examined the story at a less abstract and philosophical level. Children only completed the philosophical questions due to the small sample size.

To develop a set of philosophical questions, experts in philosophy (i.e., undergraduate students, graduate students, and professors with a philosophical background) were asked to rate a series of questions on what they were assessing: (1) strictly memory/comprehension (e.g. what color was the cat?), (2) lower-order thinking – reasoning, critical thinking (e.g. why shouldn't the frog sit on the log?) (3) higher-order thinking – meta-cognition, imposing meaning (e.g. when would it be best not to do what you are told?), or (4) abstract in nature (e.g. do you know anyone like the frog?). The higher scores were deemed more philosophical by philosophy experts due to their engagement with higher-order thinking skills and employment of more abstract concepts. The control group received only questions in groups that were rated as memory or lower order thinking and the philosophy group received questions in groups 1 – 4 to gauge ability of all types. Questions were asked throughout the story telling

after reading the page(s) corresponding to the question(s). The goal of the questions was to engage participants in a philosophical conversation in which they think about the story, the epistemological and moral implications of it, take those abstract ideas and generalize them across their everyday life, therefore (hopefully) employing their higher-order thinking skills.

As one goal of this task was to examine philosophical reasoning, we scored the participant responses to questions on the level of philosophical thought exhibited in each response. Responses of the participants were scored on a 0-3 scale (see Appendix A and B for scoring codes). The dependent variable was the total number of points responses received. (See Appendix A and B for scoring codes.)

Conformity Behavior Task. Another goal of the study was to examine how philosophical thought might influence later philosophical reasoning in a real-world scenario as part of higher-order and abstract thinking skills. To examine this question, we presented participants with a task to assess if philosophical prompting would have an impact on conformity behavior. In this task, children were presented with two choices, a more attractive toy (e.g., a colorful, animal-shaped eraser) and a "plain" toy (e.g., a plain white eraser). Children were told that all the other children chose the "plain" prize, but they could choose which ever they liked. Children's response to the choice was recorded with a plain selection thought to reflect more conformity and the attractive selection thought to reflect more individual thought. To check that our attractive prizes were actually considered to be more attractive to children, we had two selections (i.e., stickers and erasers). Half of the children made the conformity selection

with the stickers and then were asked to rate their preference of the erasers and vice versa, so we had data on the actual preference of both the stickers and erasers.

For the adults, we designed a similar task under the guise of a smell perception task, since stickers and erasers are not necessarily desirable for adults. In this task, an experimenter asked participants to identify the better smelling scent between two identical candles. We told the participants that they would be doing a smell perception task in which they must see if they can identify the subtle difference between the two candles, and then identify which one they prefer. The experimenter then indicated one candle that "most" participants preferred. Their responses were marked as follows: same preference as others (indicated by experimenter) – conform, different preference than others – did not conform, and noted they were the same – did not conform. After they gave us their preference, we debriefed them and told them the two candles were identical and that the candle that had been pointed out as most preferred was not.

III.3 Results

Research Question 1: Is cognition related to philosophical thinking?

For adults, higher scores on the philosophical reasoning questions were related to year in college $r(13)=.55$, $p=.04$, and marginally related to working memory performance $r(15)=.43$, $p=.09$. Philosophical reasoning was not related to number correct on the flexibility task, $r(15)=-.36$, $p=.15$, or total correct on the verbal abilities task, $r(15)=.17$, $p=.52$. (See Table 1)

For the children, the only marginal correlation to the philosophy scores were the total correct on the verbal abilities task, $r(5)=.84$, $p=.07$. Philosophical reasoning was

not related to number correct on the flexibility task , $r(5)=.32$, $p=.60$, or working

memory performance , $r(5)=.22$, $p=.73$. (See Table 1)

Research Question 2: How do children compare to adults on an age appropriate

philosophy task?

With reading a child-friendly story and questioning participants in such a way to

prompt philosophical reasoning, we found that there was no significant difference

between children and adults, $t(20)=1.16$, $p=.26.$, despite doing better on EF and

language. (See Table 2)

Research Question 3: Does philosophical training in adults influence conformity

behavior?

We did not find a significant difference between the philosophy and control

group in the conformity task. The adult participants who received philosophical

reasoning questions did not conform less than ($M=.29$, $SD=.47$) those who received

general reasoning questions, ($M=.26$, $SD=.45$), $t(34)=.20$, $p=.84$. Nor was it the case that

participants who chose not to conform answered in a more philosophical manner

($M=26.5$ $SD=3.18$) compared to those who chose to conform ($M=28.8$, $SD=3.35$),

$t(15)=.20$, $p=.20$. (See Figure 1)

Part 4: Discussion

Cognition and executive functions do seem to be marginally related to philosophical abilities in both adults and children. Children appear to be doing as well as, if not better, than adults on this particular philosophical task despite cognitive differences.   This supports Murris' claim that children CAN do philosophy (2000) and rejects Kitchener's claim that children under the age of 10 cannot philosophize (1990). We did not find that conformity was influenced by philosophical training as we hypothesized.

The data for our first question of whether or not there is a correlation between cognition and philosophical reasoning skills. For the undergraduate data, we found that there was a relation between the classification of the participant in college and their philosophical reasoning. This is could be due to the amount and variety of information the participants have been exposed to and how they are able to reflect on it. We also found a marginal correlation between philosophical reasoning and working memory. Working memory deals with perceptual and linguistic processes, which are important in philosophical engagement (e.g., hold information, such as multiple theories/concepts, in mind and reflect on it). For the children, we found marginal correlation between verbal intelligence and philosophy scores. I think this could suggest that the amount of information children have learned in school enables them to reason and think abstractly at a higher level, as suggested by Plato's educational system. It should be taken into consideration that we were limited with the sample size and were only able to test 6 children, 1 of which received control questions.

With the second question of how children and adults compare, the results indicate that despite the cognitive differences on the executive function and verbal intelligence tasks, the children's philosophical scores were as good as, if not better than the adults. It should be noted that the children were scored with the same code as the adults, however, they were scored based on addressing the topic listed rather than using the language/vocabulary that the adults used (see Appendix A for philosophy scoring code). I think ideas asserted by philosopher Ludwig Wittgenstein can help us to understand this. Wittgenstein proposes that misconceptions of language create philosophical problems. Kitchener addresses this and Mathews' argument that by introducing philosophical ideas at a young age, we would be helping to avoid later, unnecessary problems. Because they have not yet formed biases, children can philosophize without misconceptions (Kitchener, 1990, pp. 266). Adults might have been thinking to concretely about the ideas and children, because they do not yet have as many misconceptions in language (e.g., multiple meanings for words) they are able to think more freely. While we see with the adult data that classification does lead to higher philosophy scores, we need to take into consideration Murris' claim that we cannot rely solely on biological or psychological age. We must look to individual differences within individuals and assess their abilities individualistically rather than by group (Murris, 2000, pp. 272).

As for the third research question of whether or not philosophical engagement influences conformity behavior, we did not find a difference between the non-philosophically questioned participants and the participants that received the

philosophy questions on the conformity task. This might be due to the type of conformity task we used. We deceived the adults in telling them they were doing a smell perception task and that one candle was preferred. By informing them that there were subtle differences in the candles, they might have actually believed that differences were there, even though they were identical. We did not answer this question for the children due to the very small pool of participants, six children were tested only one of which were given the control questions.

Some of the limitations of this study were the short time frame to gather data from kids, the small pool of kids for age range (7-9). There was not much variability of adult data insofar as major and philosophy courses taken are concerned. For future research, we would like to have more participants with a background in philosophy to compare to philosophy minors/majors to the other participants, add a psychological flexibility task to compare to cognitive flexibility.

In conclusion, this data supports the theory that children, even those under the age of ten, can engage in a philosophical discussion and reflect and convey their beliefs, ideas, and values. More research should be done on this, especially looking at the effects of long term exposure to philosophical instruction. I believe integrating philosophy as a curriculum into educational institutions starting at elementary (maybe even younger) would be beneficial to the students in an academic and personal manner. Those that participate in Philosophy for Children (P4C) instruction have shown to improve in other academic areas, such as Math, English, and Reading (Gorard et al., 2016). Engaging in Philosophy does not only help one to better articulate beliefs and

opinions, but aids in improving logical reasoning and self-regulation do to the concepts

one is encouraged to reflect on. For this reason and due to the results given, I agree

with Murris that children should be encouraged to participate in philosophical

discussions to promote their abilities at a level that is appropriate to their cognitive

development.

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Table 1

Correlations Among Study Variables

	1	2	3	4	5	6
	Adults					
1. Philosophy Score	1.00					
2. Philosophy Classes	.12	1.00				
3. Classification	.55*	.38	1.00			
4. DCCS	-.36	-.16	-.41	1.00		
5. Backward Digit	.43	-.04	.10	-.38	1.00	
6. WASI	.17	-.69**	-.15	.14	.17	1.00
	Children					
1. Age	1.00					
2. DCCS	.76	1.00				
3. Backward Digit	.76	.58	1.00			
4. WASI	.75	.64	.53	1.00		
5. Philosophy Score	.28	.33	.21	.84	1.00	

Note: For the undergraduate data, we found that there was a for the classification of the participant in college and their philosophical reasoning. We also found a marginal correlation between philosophical reasoning and working memory. For the children, we found marginal correlation between verbal intelligence and philosophy scores. Again, we were limited with the sample size and were only able to test 6 children, 1 of which received control questions.

Table 2

Descriptive Statistics

	M (*SD*)	Range	*n*
Adults			
1. Classification	3.43 (.86)	3 - 6	17
2. DCCS	11.03 (1.63)	4 - 12	17
3. Backward Digit	4.36 (1.48)	1 - 8	17
4. WASI	33.81 (4.69)	22 -42	17
5. Philosophy Score	27.18 (3.30)	19 - 33	17
Children			
1. Age	7.80 (.84)	7 - 9	5
2. DCCS	9.60 (2.19)	6 - 11	5
3. Backward Digit	3.40 (.55)	3 - 4	5
4. WASI	24.60 (5.03)	17 - 29	5
5. Philosophy Score	29.00 (2.12)	26 - 31	5

Note: The results indicate that despite the cognitive differences on the executive function and verbal intelligence tasks, the children's philosophical scores were as good as, if not better than the adults. The children were scored with the same code as the adults, however, they were scored based on addressing the topic listed rather than using the language/vocabulary that the adults used. (See Appendix A for philosophy scoring code)

Figure 1

Adult Conformity Task
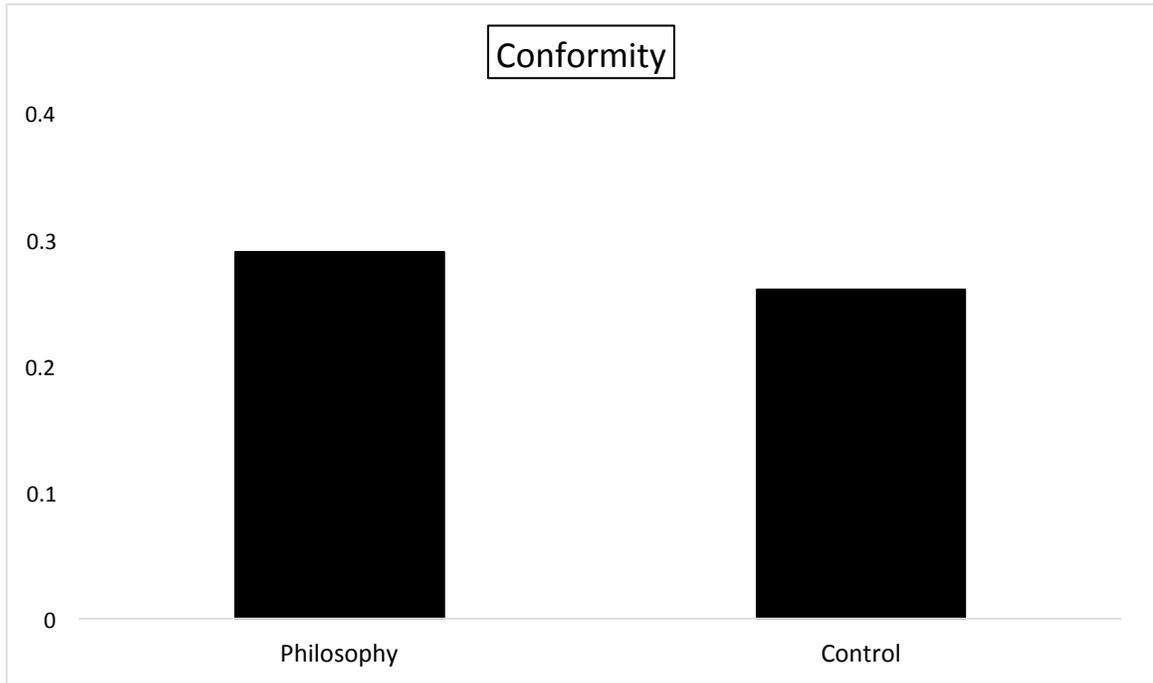
Note: We did not find a difference between the philosophically questioned participants and the non-philosophically questioned participants in their conformity behavior.

Appendix A

Philosophy Questions/Scoring

1. Do you think the frog should sit on the log?

2. If someone tells you to do something, but it makes you uncomfortable, do you have to do it?

3. The frog says that he can stretch out on the sofa. Just because he can, should he? If he is taking another animal's place is it wrong? Why?

4. Do you agree with the Cat that the right thing is to sit where you are told, or do you agree with the frog that comfortability is more important? Why?

5. Is it wrong for someone not to do something they are told to do because it makes them uncomfortable? Yes or No, Why?

6. Do you think that all of the animals are happy why/why not? Yes or No, Why?

7. If we don't have the cat telling us where to go, how can we find our special place?

8. Would the animals be better off if there were no rules? Yes or No

9. When would it be best for you <u>not</u> to do what you're told?

When would it be best for you to do what you're told?

10. Do you think most people are happy to be in their assigned places? Why?

11. Do you know anyone like the Frog? Who? How are they like the Frog?

12. Do you know anyone like the cat? Who? How are they like the Cat?

Philosophy Scoring

1. Do you think the frog should sit on the log?

   1 – yes/no

   2 – yes/no + use example from book; no, it's hard/uncomfortable/splinters, etc

   3 – go beyond book; no, he can make his own decisions, not listen to others

2. If someone tells you to do something, but it makes you uncomfortable, do you have to do it?

   1 – yes/no

   2 – yes/no + you can make own decisions

   3 – take into consideration authority/others

3. The frog says that he can stretch out on the sofa. Just because he can, should he?

   If he is taking another other animal's place is it wrong?

   1 – yes/no

   2 – yes/no + if he wants

   3 – take into consideration others (others, other animals, sharing); if answer is about chaos, get them to explain

4. Do you agree with the Cat that the right thing is to sit where you are told, or do you agree with the frog that being comfortable and happy is more important? Why?

   1 – I agree with ___

   2 – I agree with ___ because ____

3 – considering consequences of actions/ or situational variability/ credibility of cat/ morality/ definition of "right"

5. Is it wrong for someone not to do what they are told because it makes them uncomfortable?

1 – yes/no

2 – yes/no you can make your own choices, nobody can tell you what to do

3 – yes/no/both considers authority/situational variability

6. Do you think that all of the animals are happy why/why not? Yes or No

1 – yes/no

2 – yes/no they don't look happy, their places don't fit, they're not comfy

3 – go beyond observation of book, they didn't choose their place, they have no choice and everyone should, relate to the frog questioning authority

7. If we don't have the cat telling us where to go, how can we find our special place?

1 – answer

2 – answer + reason

3 – finding where we fit and what makes us happy

8. Would the animals be better off if there were no rules? Yes or No

1 – yes/no

2 – yes/no + choice and comfortability is important

3 – consider importance of rules in society, sometimes what is best for others is more important than being comfortable/happy

9. When would be best for you <u>not</u> to do what you're told?

   When would it be best for to you do what you're told?

   1 – you should always do what you're told

   2 – specific example

   3 – abstract; taking into consideration harm of others, authority, morality

10. Do you think most people are happy to be in their assigned places?

   1 – yes/no

   2 – yes/no + talk about skills (they were assigned their because they're good something)

   3 – talk about what it means to be happy, and what it means to be happy in accordance with skills, dreams, goals (ex. I like to sing but I'm not good at it, I like tutoring because I'm good at it, I don't like _____ because I'm not good at it, I don't like _____ even though I'm good at it)

11 & 12. Do you know anyone like the Frog? Do you know anyone like the cat?

   1 – yes/no

   2 – specific person without reasoning

   3 - yes/no example with reasoning; she bosses me around, she asks a lot of questions, doesn't go with flow, people who are manipulative, people who don't like being told what to do

36 possible points in all

Appendix B

Control Questions/Scoring

1. Does the frog want to sit on the log? Why/Why not?

2. Where would the frog like to sit?

3. Does the cat think it's important to be comfortable?

4. What do gorillas sit on?

5. Do you think the gorilla is happy? Why/Why not?

6. Where did the dog sit?

   Describe the dog.

7. What color was the cat?

   Describe the cat.

8. What did the sign say that the frog was holding?

9. Where did the frog stretch out?

10. What sits on sofas?

11. What do all the animals and their special places have in common?

12. Name as many animals and their special places as you can.

Control Scoring

1. Does the frog want to sit on the log? Why/Why not?

   0 – incorrect

   1 – yes/no

   2 – yes/no with appropriate reason

2. Where would the frog like to sit?

   0 - Incorrect

   1 - Names one correct place

   2 - Names multiple correct places

3. Does the cat think it's important to be comfortable?

   0 – I don't know/incorrect (yes)

   1 – no

4. What do gorillas sit on?

   0 – incorrect

   1 - pillar

5. Do you think the gorilla is happy? Why/Why not?

   0 – I don't know

   1 – yes/no

   2 – yes/no with appropriate response

6. Where did the dog sit? (on frog)

   Describe the dog. (could say personality, or physical – spotted, brown, white,

   floppy ears, long nose, etc.)

0 – I don't know

1 – answers 1 correctly

2 – answers both correctly

7. What color was the cat? (grey, grey & white)

    Describe the cat. (personality)

    0 – I don't know/ incorrect

    1 – answers 1 correctly

    2 – answers both correctly

8. What did the sign say that the frog was holding?

    0 – I don't know/incorrect

    1 - help

9. Where did the frog stretch out?

    0 – I don't know/incorrect

    1 - sofa

10. What sits on sofas?

    0 – I don't know/incorrect

    1 - gophers

11. What do all the animals and their special places have in common?

    0 – I don't know

    1 – places rhyme with names

    2 – told where to sit, etc. (specify answer if not "place rhymes with name")

12. Name as many animals and their special places as you can.

30 possible answers

1 point per correct animal/place pair

Qs 1-11 offer 17 possible points altogether