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INTERVIEW WITH PROFESSOR ELLEN WINNER

¹Tania Vicente Viana

²Cristina Maria Carvalho Delou

¹Universidade Federal do Ceará. E-mail: taniaviana@ufc.br

²Presidente do Conbrasd. E-mail: cristinadelou@id.uff.br

Interviewer: Tania Vicente Viana

Who is Professor Ellen Winner?

Ellen Winner is Professor Emerita of Psychology at Boston College and Senior Research Associate at Harvard Project Zero. She has written four books and over 200 articles. She is the author of “Gifted Children: Myths and Realities”, a book sold out in Brazil. She was President of American Psychological Association’s Division 10, Psychology and the Arts, in 1995-1996, and received the Rudolf Arnheim Award for Outstanding Research in the year 2000. She is a fellow of APA Division 10 of the International Association of Empirical Aesthetics.

Tania Viana: My first question for you is about one of your books. Actually, it's your most famous book to us in Brazil. “Gifted Children: Myths and Realities”. It's a well-accepted book in Brazil. As a matter of fact, it is completely sold out and no other book took its place afterwards. We definitely need a new edition in Portuguese. The book was organized around nine misconceptions about the nature of giftedness. Could you talk about these myths or misconceptions to us?



Ellen Winner: Sure. And I hope that you can manage to get more books printed, so that more people can buy it. I had no idea that it was sold out in Brazil. So, you can let me know if I can help with my publisher.

Okay, about the myths. Well, I believe that the first myth I began my book with was what I call the global giftedness myth, which is the idea that, if a child is gifted, the child is gifted all around: gifted in math, gifted in verbal areas, gifted in the arts, gifted in athletics, just generally all around gifted. And that's very rare, very rare.

Most children are gifted in one or in one area more than in other areas. There's also a view that

if a child is gifted in an academic area – and I mentioned two of these, mathematics and verbal areas – if a child is gifted in one, they're going to be gifted in the other. And that also is not true. Children who are very high in verbal are often not particularly high in math, and the reverse is also true. So, I'm not saying no children are globally gifted, but the more... most gifted children are gifted in one particular area, and they have what I would call jagged profiles: high in some, high in one, maybe two, and ordinary, typical average in the others.

And we also have cases of children who are gifted in one area and learning disabled in another area. And we also have the case of what are called “savants”, who show highly high abilities in a particular area like music or realistic drawing or memory or math or calculation – I would say that aspect of math – but who are retarded and often autistic as well. So, it's much more complicated than saying giftedness is one big global glob of being high in everything.

Tania Viana: In Brazil, the research on myths about giftedness has been carried out by Eunice Soriano de Alencar and Denise Fleith since the 1970s. By the way, Denise Fleith is the current president of the World Council for Gifted and Talented Children. Even though, the myths still survive nowadays. In your opinion, how can this situation be explained?

Ellen Winner: Oh, sure. Well, I'll be happy to answer that, and then I can talk about the other myths if you'd like. You know, it's very hard to change people's minds, and not everybody is poring over the academic research literature to find out what terminology is now recommended. I think people fall back on slogans, on easy ways of characterizing things.

And, you know why, some of my other work was about the claim that “arts education is important because it raises children's academic abilities and test scores in academic areas”. And I showed that was actually not true. There was no evidence for that. But it doesn't seem to matter that I showed that, because people still make those claims. So, as I would say, it's very hard to change the way people talk and think about things. Should I talk about some of the other myths?

Tania Viana: Of course, as you wish.

Ellen Winner: Okay. A second myth I talked about is what I called the talented but not gifted myth. And that is the assumption that there's a difference between being talented and being gifted. But if you really think about it, what is the difference? It really the difference seems to be the domain in which one is talented *versus* gifted. We tend to reserve the word gifted for being high in academic areas and school areas, particularly mathematics and verbal areas, and talents for the arts and athletics. But I would argue that we should just use one word for all of them, either all talents or all gifts. I prefer gifts.

And... gifted children in all domains have several characteristics in common that unite them. They're, first of all, they're precocious. They're performing above their peers, their age peers, in some area, often way above. Second of all, they... what I call they march to their own drummer: they're often non-conformists; they don't really care about what other people think and most importantly they teach themselves, they practically teach themselves in their area of high ability. They don't need a lot of scaffolding and support.

And the third characteristic is what I call having a rage to master, which is just an incredibly intense motivation to keep working in their area of high ability, probably because they're good at it. And when you're good at something, you achieve a kind of state of flow when you're working on it. And it's pleasurable. So, in those three ways: precocity, marching to their own drummer, and rage to master, all gifted children, no matter what the domain, are alike. And, therefore, I don't think we should make a distinction between talents and gifts.

Another myth I talk about is what I call the IQ¹ myth. And that is that if a child is gifted, that child has a high IQ. Now, if a child is gifted in... very gifted in either verbal or mathematics, that child likely does have a high IQ because those are the two areas that IQ tests focus on. But as we often find kids who are much higher gifted kids... who are gifted in math, but not in verbal or the reverse. I think I already mentioned this when I talked about the myth of global giftedness.

And if you talk... if you think about gifted in art or in music or athletics, these are often unrelated to IQ. People have claimed that kids who are gifted in music have high IQs, but that's actually been shown to be not true. You can be very gifted in music and have an average IQ and the same for art and certainly the same for athletics. So, the IQ myth says all gifted kids have high IQs and I say no: just kids who are very high in the school areas. Let's see, what myth am I on?

The fourth myth is what I call the origin myth. Where did giftedness come from? And I think there's a commonsense view that kids who are highly gifted were just born that way. And if you ask somebody on the street, that's probably what most people would say. If you ask a psychologist who's read the work of Anders Ericsson, that psychologist is going to say, "Oh, it's a myth to say it's all inborn. It's all due to practice. And if you practice something for 10,000 hours over years, you're going to achieve state of giftedness".

And I actually think that the popular view is more correct than the 10,000 hours view. Because you cannot take a child at random and get that child to play the piano for five hours a day or to work on math on her own free time because she loves it so. This is... it's true that 10,000 hours of practice or hard work is necessary for achieving high levels of proficiency, but it cannot be sufficient. If you look at young children early on, some of them, those who we call gifted, are showing high abilities in a particular area where they haven't been trained. So, they... and there isn't... and it's clear that they have such a high ability. For instance, I have a grandchild who is what I call an abstract art prodigy. He gets up in the morning and spends all his time making abstract art and making it very, very carefully. He's only four. And it's unusual to see a child doing this. He's not showing the same kind of proclivity for anything else, not for music, not for reading books. It's just art.

So, where does that come from? I think that it has to be, in some sense, inborn. Children are born with certain proclivities that point them to certain domains. And so... the idea that you can force a typical child to work 10,000 hours on something is ridiculous because you can't make a typical child do that. They rebel. You only get a child to do that if they really love doing it. And you only really love doing it if you have high ability to begin with, so that it comes easily to you.

Another myth is the idea of the driving parent. It's very related to the 10,000 hours myth. That the idea is that gifted children are just born like typical kids, but their parents push them, push them, push them. And that's what makes them achieve high levels. But, in fact, what parents say is their children are pushing them: "I want to read more books"; "Get me more books"; "Take me to the museum". The kids are asking parents to give them the materials they need to work in their area of high ability. So, while it's true that some parents of gifted children do push their kids, that is not the explanation for where children get their high ability.

Let's see, I have three more myths to talk about. Another one is called the glowing with

¹ Intelligence Quotient (IQ).

psychological myth, health, glowing with psychological health. This was a myth that was really fostered by the work of Lewis Terman, who did the first longitudinal study of high IQ children starting in the 1920s in California. And he thought that high IQ children tended to be very well adjusted, happy kids. And that's a kind of idealization that just doesn't hold up under the evidence. It turns out that the more highly gifted a child is in any area, the more likely they are to have trouble finding friends of their own age because they're so different from their age peers. And so, they often have social difficulties. So, perhaps this is true of a moderately gifted child, but the highly gifted, the extremes are often dealing with being picked on, feeling weird and not having friends of their own age. And therefore, they often gravitate to older kids.

Another myth that we see, in the United States, is the claim that all children are gifted. And I think this comes from a desire not to be elitist. And educators are very likely to say: "All my kids are gifted". And I think what they mean by that is all my kids have potential to learn. So, it's just not the case that all kids are gifted. There's lots of variation in children's abilities.

I even find this myth in the visual arts. Once I was doing a study of children who are gifted in the visual arts and I asked an art teacher to pick out a few of her kids who were most gifted in the visual arts. And she said: "All my children are gifted in art". And I understand the impulse behind that. It's to say that all kids can learn and thrive. But that teacher knows very well if she sees a child who's unusual in art and gifted, that teacher can tell the difference between that and the typical child. But teachers resist that because they don't want to seem elitist.

I think that the last myth I wrote about and I'd like to mention is a really puzzling one, and that is that most gifted children do not go on to become famous adult creators. We might think that, if we have a child prodigy in math, doing calculus at age eight or something, that that child is going to go on to become the next Einstein. That rarely happens because gifted children are mastering a domain that's already been invented. And highly creative adults are actually inventing or changing the domain or inventing a new domain. And that's a very different kind of skill. And so, while most adult creators, though not all, were prodigies in their area, most prodigies do not go on to be highly creative adults who shake up their field. They tend to go on to become experts in their area, but not people that are known as great creators or what we might call geniuses. So, those are my nine myths that I organize my book around. And I'm happy to answer questions you might have about any of these.

Tania Viana: Professor, would you explain to us what a prodigy is?

Ellen Winner: You know, people have tried to come up with a very specific definition. David Feldman argued that a prodigy is a child who's performing at adult levels below the age of 13. I would agree that would be a prodigy. I'm just not sure why we make the cutoff at 13 or 14 or 12 because it's all a *continuum*. So, I would simply say that a prodigy is a child that is performing way above grade level and is in some area and is showing the characteristics of having a rage to master.

Tania Viana: First of all, is it true you met two Terman subjects? I mean: two real "Termites"? How was this experience? Could you share it with us?

Ellen Winner: Sure. They were quite elderly, of course. I don't remember exactly how old they were, but I'm sure they were in their 80s. Some of them might have been in their early 90s. One of them was... showed me very complicated jigsaw puzzles that he loved to work on. And another one – that was a man – a woman showed me all kinds of photographs that she had collected. So, they seemed like ordinary, kind, nice people. They were very happy to talk about having been in the study, but you would not have known how gifted they had been as children

just by talking to them. They seemed like, you know, ordinary people who were highly articulate. But I knew that they had this... this history of high ability.

Tania Viana: That's so nice.

Tania Viana: As a legacy of Terman's study, people in general believe IQ tests are the best way to identify gifted children. Moreover, children are admitted into special school programs for the gifted on the basis of their IQ scores. As your conception of Giftedness allows a broader vision of gifted people, what do you consider to be a better way to identify them?

Ellen Winner: Well, I'm not opposed to the idea of an IQ test because IQ tests do tell you how well children are going to do in school, because what the IQ tests ask for are school-related abilities. But I think that a much better way, and maybe broader way of capturing more children – who maybe don't test well – would be to rely on something softer. I think that teachers know very well which children are bored in school because they can do everything that they're being asked, and they have time left over – when the other kids are still working – and they're asking for more work. Those kids clearly are asking for something more challenging. So, I would rely, first of all, on what teachers observe and recommend.

And I would also, this may sound like a crazy recommendation, but I would let children opt into advanced classes in their area of ability. Because very few children are going to opt into an advanced class in math if they already are finding math hard. So, I think it would be a very good sign of ability in a particular domain if a child says: "I want to go into an advanced class". Of course, with that, you would have to have the understanding that children who opt in but actually aren't capable of doing the work would have to opt out. But I personally would rely on teacher recommendations and students asking to opt in... instead of an IQ test. And an IQ test certainly isn't going to pick up giftedness in non-school areas.

Tania Viana: Teachers' recommendations too.

Tania Viana: The existence of educational programs designed for gifted and talented children in the United States of America (USA) points out to two different categories: giftedness and talent. I'd like to know the purpose of this differentiation, ma'am.

Ellen Winner: I think that, when they say talent, they're referring to arts or maybe also athletics, although they're usually use the term skilled. I think, when they use the word gifted, they're referring to school abilities, primarily verbal abilities and mathematical abilities. So... but, as I mentioned earlier, I don't really think it's useful to have a different term: gifted and talented. I think one should just say gifted in and then specify the area in which children are gifted. Because to me, giftedness and talent simply means very high ability in a particular domain.

Tania Viana: You begin your book "Gifted Children" saying that phrase: "No society can afford to ignore its most gifted members, and all must give serious thought to how best to nurture and educate talent". Which model of Education do you consider to be better for them?

Ellen Winner: Well, I think that the model of education that I consider to be better for gifted children is the same model that I consider to be best for all children. And, that is, first of all, an education that challenges children, not too hard, not too easy, just challenges them right where they need to be challenged to bring them up.

And, second of all, a Progressive Education as opposed to a Traditional Education. And by that,

I mean a traditional education is the idea of a teacher standing in front of a class, transmitting knowledge to the child, whose job is to internalize and remember what the teacher has said. That's a very traditional form of education. But ever since the 20th century, there has been this idea of Progressive Education pioneered by John Dewey, the father, I would say, of Progressive Education. And, in Progressive Education, children are actively constructing their own knowledge and their own understanding by interacting with materials, by talking to their peers.

And the teacher has an important role, but it's not standing in front of the class and transmitting knowledge. It's serving as a facilitator for children, who construct their own knowledge, posing challenges to the children, so that they can engage in problem solving and figuring things out on their own. I think that kind of education is the best for all children, where it would differ for gifted children is that you would just have to have it be more challenging.

But I've also argued in my book that I, instead of having gifted programs for the, what I would call moderately gifted, I would simply raise the level of challenge in all of our schools for typical children. And then do something special for the ones that are several years or more ahead of their peers, which I would call the extremely gifted or the prodigies. They really need something different. And I think that what they need is advanced classes in their area of high ability. But I would still structure those advanced classes in a progressive way rather than a top-down teacher directing knowledge to the child, which the child is supposed to memorize.

Tania Viana: In your studies about Psychology of the Arts, you find a correlational connection – not a causal connection – regarding students who take a lot of Arts having higher test scores than students who take fewer Arts or no Arts at all. What habits of mind do you think the Arts can gender?

Ellen Winner: Okay, let me answer it what I think there are two parts to this question. The first is that why is it that I found no connection between academic strengths and taking a lot of courses in the arts? It is a correlational finding, therefore it's not a causal finding. And when my colleague Lois Hetland and I looked at all of the research that we could find testing the claim experimentally about whether or not engaging in the arts raises children's academic test scores, we could not find any support for this. There is a correlation.

Children who take a lot... High School... You know, once children are old enough to choose their classes by High School, high schoolers who take a lot of art tend to do well on tests. But that's because they may come from schools that are, they may go to schools which are good in both academics and the arts. They may come from families that value both. They may have super high energy to engage in both and do well.

But, when you do an experiment, which means you take a group of children and randomly assign one group to get a lot of arts and the other group to get something else that's not arts, and you measure their academic test scores before and after this intervention, that's a true experiment where you can assume, you can infer causality. There we found those studies did not show any evidence. So, in the United States, there's a desperate attempt to keep art education in our schools, which I value, but people believe that the best way to do it is to say: "Give money for arts education because it will make your kids smarter".

And I'm afraid that doesn't hold up. Give money for arts education because it helps children develop other forms of thinking skills. And that gets to your next question. I wrote a book called "Studio Thinking: The Real Benefits of Visual Arts Education". And that was based on many hours of observing very skilled teachers in the visual arts teaching high school students. And what we found is that these teachers were instilling a number of what we call artistic habits of

mind, the kinds of habits of mind that artists use in their children, in their students, sorry.

So, for example, one of them is learning to look really carefully. That's a very important skill, learning to notice, look carefully. Another one was learning to envision, which would be, by which we meant helping children to generate mental images, even when the images are not in front of them, they're just in their minds. And that's important because if you're going to plan a painting, say, you need to have an image in your mind of how you want it to look. Or if you want to revise your painting, you have to have an image in your mind of what change you want it to look like. So, it's observe, envision.

Reflect: we found a lot of focus on reflection in art class because students are asked all the time: "What are you doing?"; "Why are you doing that?"; "What are you trying to achieve?"; "How did you get that?"; "How did you make it look like that?"; "What could you do differently?". These are all reflection questions, which get kids to think about their own process as they are creating work of art. There are a number of others too, like engage and persist. In high level art courses, kids are taught to stick to something and you work on projects for a long period of time. You don't just get a simple worksheet, make a picture and say: "I'm done". You stick to something that you're engaged in for a long period of time.

Another one is stretch and explore. Kids were asked to muck around, try things out, not worry if they made a mistake, learn from their mistakes. I don't think you often find that in math classes. "Just try out new ways of doing long division"; "See what you come up with"; "Don't worry about making mistakes". You don't hear that so much in a math class. But I could walk into an art class and I heard a teacher say: "Today we're going to figure out new ways of making clay stick together"; "I'm just going to ask you to figure it out on your own"; "See what you can come up with". And maybe you'll make mistakes. Maybe you won't. Maybe you'll come up with something entirely new. So... That would be stretching and exploring.

So, those are some of the habits of mind that I think kids pick up in high-level visual arts classes. And I now have students who are looking at the same kind of issue in music, what habits of mind are taught in music, and in theater, what habits of mind are taught in theater. So, and they're not going to be the same. They're going to be different. They are different. So... but I think the idea of habits of mind It's a very rich way of thinking. You can think about this for academic areas too. When you teach math to children or history, you're trying to engender the habits of mind that mathematicians use or that historians use. So, arts are no different.

Tania Viana: That's very cool.

Ellen Winner: In your experience, what factors play an important role in order to lead gifted children or prodigies into creators in adulthood?

Well, that's a real puzzle. As I said, most prodigies do not become great creators, even though probably the majority of creators were prodigies as children. Because the funnel gets smaller as you get to be an adult. So, here are all the gifted kids, but then they're trying to make it into becoming a great creator and the funnel is narrower. And there are many fewer great creators. And I think one reason that I mentioned earlier is that a gifted child is mastering something that's already been invented. And a creative genius is inventing something new. So, that's a very different kind of skill.

So, we can't expect all prodigies to have that. And I think there's a personality characteristic too. And that is if you are going to... if you want to become a creator, an innovator, you have to have a desire to shake things up. You have to have a desire to make something different,

to make your domain different because you're not satisfied with the way things are. You're not satisfied with the state of visual arts. And so, you want to come up with a new way of painting. And so, Picasso comes up with Cubism. You're not satisfied with the state of Biology and Science. And so Darwin comes up with the Theory of Evolution. These things don't just come snap out of the blue. They are product of long years of hard work.

But I think the personality characteristic of wanting to shake things up is probably very important. Kind of restlessness. But nobody has been able to predict which prodigies are going to become great creators. We can only look back and say: "Oh, these creators were prodigies and they had these characteristics". So it's not an easy question. But that's my best. Those are my best guesses. Having the ability not just to master, but to innovate in a big way and having the desire to innovate.

Tania Viana: Professor Ellen Winner, this is related to the rage to master?

Ellen Winner: Well, I think gifted children have a rage to master and I think adult creators have a rage to master. So, I don't think that having a rage to master predicts that you will be an adult creator. I think it goes beyond that.

Tania Viana: Could you explain to us your conception of giftedness? You talked about: it's based on three characteristics.

Ellen Winner: Yes, I mean, I think that, in my view, all children who we would call gifted and/or prodigious, first of all, by definition, they're precocious, and what I mean by that is they are doing things in a particular area that are not the same as what their age peers are doing. They're ahead of children their same age, some are moderately ahead, some are way way way ahead it's a *continuum*, so there's precocity. The second is that they really seem to teach themselves. They don't need a lot of adult help.

I'll give you an example. One of the children I wrote about in my book mastered reading at an extremely young age. And now I've forgotten exactly what age I said he was, but it's way beyond, way, way lower than the age at which children usually acquire reading. And here's how he did it. He asked his mother to read him a story and to point to each word as she said it. He looked on closely and he asked for the same thing to be done for one week. And then he selected another book and asked for the same thing every day for a week. And after that, his mother told me he had simply cracked the code of reading and he never wanted to be read to again. He simply read on his own.

Now, the adult in this picture had some role. She had to provide the book and obey her son and point to each word that she uttered. But that's a very minimal role compared to what a reading teacher has to go through to get a typical child to learn how to read. And that's what I mean when I say they don't need a lot of adult teaching. They pretty much teach themselves.

And the third characteristic is this rage to master. This drive. It's very hard to get kids to go out to play, play with their friends, eat breakfast, pay attention in school, because all they want to do is work in their area of high ability. I mean, one child I studied who was a drawing prodigy, simply made drawings all day long in school and wouldn't participate in any of the other activities in kindergarten. And his teacher didn't like that. She didn't support it. But this child was just obsessed with drawing.

And my grandson, age four, gets up in the morning before other people are up, and he goes in his room, he has all his art materials, and he starts painting. And he doesn't bother anybody,

because he's completely engrossed in painting and he doesn't even wake anybody up. And that's what he does all the time that he's allowed ready to rage to master.

Tania Viana: I'd like to understand a little more about one of the characteristics of your model. Let me see. And insistence on marching to their own drummer. Could you talk a little more to us?

I think that I mean by that both that they teach themselves and also that they're somewhat nonconformists. They don't care what other people think. They don't try to be like other people. They feel different and they really are different. They live in their own heads. They find their own minds more interesting than those of other people. They simply... They're often introverted and they seem to drive themselves rather than have peer pressure drive them.

Ellen Winner: Yeah. I think that I mean by that both that they teach themselves and also that they're somewhat nonconformists. They don't care what other people think. They don't try to be like other people. They feel different and they really are different. They just live in their own heads. They find their own minds more interesting than those of other people. They're simply... they're often introverted and they seem to drive themselves rather than have peer pressure drive them.

They don't see anything wrong with inviting a child over to play and it turns out the only reason they wanted to invite that child over to play is so they could draw that child and ask the child to model. That actually was something that happened with one of the gifted artists that I studied. And, after a while, kids didn't want to come over to his house to play because all he wanted them to do is sit and model for his drawings. So that's kind of what I mean by marching to their own drummer. They do what they want. They don't succumb to peer pressure.

Tania Viana: Now, I got it. Thank you.

Tania Viana: That's my last question for you, Professor. Ellen Winner by Ellen Winner. How do you define yourself, ma'am?

Ellen Winner: How do I define myself? Well, I am trained as a developmental psychologist. I study how children develop, but my focus is on how they develop in the arts: visual arts, music, theater – I haven't done much work in dance. So, I guess I would say I'm a cognitive developmental psychologist focused on the arts. I've always been very interested in the arts. I was going to become an artist before I became a psychologist, but that didn't work out. So, that's how I would define myself, cognitive developmental psychologist of the arts.

Tania Viana: That's good enough. We thank you for that. Professor Ellen Winner, accept our endless gratitude not only for the interview but especially for your tireless effort in the field of giftedness. Your hard work and dedication is truly admirable and we are so grateful for all that you've been doing for gifted people. In our hearts, we have a Winner. And her name is Ellen. Thank you very much.

Ellen Winner: Thank you so much for the interview. It was a pleasure speaking to you.

Tania Viana: The pleasure was mine. Would you like to say something for people in the field of giftedness in Brazil?

Ellen Winner: Well, I think that don't give in to the pressure when people tell you: "You

shouldn't be working on giftedness"; "Gifted children don't need any help"; "It's the kids who are below average that need help". Don't give in to that because gifted children need just as much help in the sense of providing the right kind of education for them that children who have average abilities or even below average abilities need. So, keep up the fight. It's not elitist to provide education for gifted children.

Tania Viana: Professor Ellen Winner, thank you very much for this interview. Bye bye.

Ellen Winner: Bye bye. Thank you, Tania. Bye bye.