

The Learning Gene Pre-Episode 1: Starting in the Middle

(Music; classroom sounds)

Erin Manning: It's a really *political* question, I think, how we teach—you know?

Ada Jaarsma: you're listening to **The Learning Gene** podcast, where we explore the philosophy, science and drama of the classroom. Of course, there is no "learning gene," but professors continue to teach as if there were.

Classroom sounds

Ada to students in the classroom: So it's a biologically accurate phrase, but it has a second meaning, which not a scientifically accurate phrase at all. We could call it a kind of pseudoscience. Or a place where people place a lot of hopes in science that are misplaced.

Ada: This podcast is an experiment: to see what happens when the craft of teaching gets adapted for the craft of audio.

(garbled audio: 'Hey Erin, it's Ada')

Ada: I'm Ada Jaarsma, I teach philosophy in Treaty 7 territory in southern Alberta. As a way to begin this experiment of bringing *sound* together with *classrooms*, I invited Erin Manning to participate in the first two episodes of this podcast.

Erin Manning: My name is Erin Manning, and I teach at Concordia University in the departments of studio art and film studies.

Ada: This is the first episode of a brand new podcast, and, in this context I am very much a student. I am entirely new to recording, editing and mixing. You will definitely be hearing this in this first episode. As a student of audio and sound design, I get to experience that professors often forget—which is that there *is* no definitive starting point from which to learn something new. You have to start in the middle.

Erin Manning: Sorry, my partner was looking funny at me because I was talking with two phones.
(Laughs)

Ada: Learning always **starts in the middle**. This is a line that I first read in a piece by Erin. In the case of this first episode, I'm leaping into audio creation by trying out a basic technique that radio journalists use: I asked Erin to use two phones, one to speak into and one to record. It does look a bit funny, it probably feels a bit funny, but it's a really accessible way to translate a discussion into audio.

(garbled audio: Ada)

Erin Manning: Mmm, yes. Everything that we're doing in the environment of *thinking* involves an aspect of *making* and vice versa. So that we don't have this kind of theory/action split or theory/creation split but that we have different registers of knowledge and different registers of

learning and that their incompatibility is important: like, that we have to pay attention to how they're different and be interested in how they're different. But also value that difference. And I think that this often happens: that we assume that some people have *done* the learning and other people have the learning yet to do. **So I'd love to find ways for us to be in each other's classrooms more.**

Ada: This is what has motivated the creation of this podcast. Opening up the dramas of teaching and learning so that, in a way, we *can* start to *be* in each other's classrooms.

(music)

Ada: When is the last time that you were in a classroom? Maybe it was this morning or yesterday. Maybe it was a long time ago. Every classroom space is filled with design elements that teachers need to navigate: there might be a chalkboard that you choose to write on. Perhaps there are movable chairs that you decide to put in a circle. These kinds of design choices are never neutral, but professors are rarely on the hook for how we set things up. And I'm starting to wonder: what happens to *learning* when professors claim and cultivate responsibility for the environment they help to create? This is why I asked Erin to describe some of *her* choices in the classroom.

Erin Manning: In a sense, if we want to create those environments for risk, we also have to show the students that we're willing to take time to participate in them. And that we're not going to engage in that typical academic gesture of putting someone down to put ourselves up. And I was thinking about that today in terms of thinking about how to be sensitive to different ways of being in the process.

Ada: I've been listening to a lot of tape of myself in the classroom.

Ada in classroom: so what does epigenetics teach us? That our genes are always learning.

Ada: And I've noticed that I begin every lesson—and even every sub-lesson, within a lesson—in the very same way.

Ada in classroom: This hope that there is a 'learning gene'... So... okay.... So.... So the 'learning gene' is both what we're trying to explore, in terms of epigenetics, and it's what we're trying to critique.... I'm going to be a little speedy through today's lesson.... okay, so...

Ada: I'm going to look a lot more directly at the *habits* of teachers in the next episode. There is so much comedy—and sometimes tragedy—to be discovered in classrooms, when we look at the habits of instructors. But for now, I want to open up a really specific predicament of many classrooms. Professors, more likely than not, are asking students to start in the middle. To learn, by way of risking uncertainty or vulnerability. **And it's really hard to start in the middle.** You plunge into something *without knowing* where it's going to take you. Or what mistakes you'll likely make, when you're playing the role of *student*. And I came up against this myself recently when I attempted to put some of my new recording equipment to work.

Ada at interview-site: I am totally fucking everything up: *that* isn't working, and *that* isn't working! And we came all the way here, and I have a script and everything.

Katja Pettinen: Well, I guess it takes a couple tries.

Ada to Katja: You don't have any batteries in your office, do you?

Ada: When you're *in* the middle, **you don't know what you don't know**. I hadn't realized that I really will need extra batteries on hand when I'm using my equipment. But through the course of doing, I discovered this very useful bit of know-how. But generally, though, starting in the middle is a lot more open ended for students. And when there is some sort of supposed end point to learning, it's the *professor* who adjudicates the extent to which learning has taken place. Through an exam, or some other kind of assessment. This is a **feedback loop** that allows the people who are playing the role of professor to keep their own habits or practices entirely intact. So how do professors solicit other kinds of feedback loops, ones that sustain much more risky and open-ended ways of inhabiting classrooms together?

Erin Manning: Maybe part of the question of how we get feedback involves **listening for things we don't know how to listen for**. Do you know what I mean? So, in a classroom that's really hard because we're used to particular kinds of feedback, including enthusiasm, you know? So as profs, those of us who are good performers, we're used to getting a feedback—like a figural feedback—or a visible, sort of *face* feedback. But if you're trying to do something that includes discomfort, for example, where we're all learning and there's an uneasiness, you might not get that feedback. You might not even know if it's making a difference, or if it's just aggravating that you're looking for another way. And I think that we don't have very many ways of talking about that, without it quickly falling into evaluative strategies: I like this, I don't like this, it's good, it's not good. So in a sense, we need to have patience with *non*-evaluation. Do you see what I mean? We need to *be* in the process without worrying too much whether it's working or not. And I'm saying that as if I know how to do it, and I don't. But I try to say to myself: if it's going to make a difference, if this class is going to make a difference, you won't know in 12 weeks, you'll know in 5 years.

Ada: There is a drama here. A drama of evaluation and outcome. And it's at the heart of what I'm calling the drama of the 'learning gene.'

Ada in conversation with Patricia Pardo: So I'm calling the podcast **The Learning Gene** because I hope that it will immediately strike people as a silly phrase. So I hope that the association for people is: 'There is no such thing as a 'learning gene.' What would it even mean to say that there is?' And so I think that, once we notice that there is no such thing as a 'learning gene,' that it becomes apparent that there is such *thirst* for mechanisms or causal, linear chains. So many people, even in the classroom sometimes, wish: o, wouldn't it be so great if there *was* a 'learning gene' and we could activate it in some way. So one of the things I'm hoping to explore is the ideology surrounding the search *for* a 'learning gene.' But then on the more constructive side of things, if we think about how genes *are* actually always 'learning,' the very activities of genes are only understandable if we think about context, *then* learning itself becomes much more material processual. So the *process* of learning becomes foregrounded in really exciting ways.

Ada: I met with Patricia Pardo a few months ago to talk about my plans to start a podcast. Pat has a PhD in Educational Psychology, specializing in disability studies, and she's the Director of Accessibility Services at my school, Mount Royal University. In contrast to classroom teachers who tend to be familiar only with what goes on in our own classrooms, Pat tracks the systemic patterns of teaching practices across the university.

Patricia Pardo: Really, our assessment model today is a regurgitate... a sort of mechanistic model, linked to the industrial revolution...

Ada: If our assessment is mechanistic in this way, then the *outcome* of learning is identified from the outset. And so **it's really at odds with starting in the middle**. Some students will excel at mimicking their professors, or regurgitating information; they'll do really well on their exams—but in essence, this approach to design is essentially exclusionary.

Erin Manning: It's become clear to me that the way a classroom tends to mobilize knowledge is extremely neurotypical, in the sense that **it privileges very normative, cause-and-effect forms of learning**. I'm meaning it now in the university, specifically. I know for example that my students do better *listening* to things rather than reading them, for example, because of different tendencies in their learning.

Ada: You might think that classrooms exist precisely because *teachers* are ready to start in the middle. Because we're gripped by the promise of what we don't know what we don't know. It's not true, though. We often teach as if we've already decided, in advance, what it is known and even what is knowable. And so the journey turns into something that is preset. Simply a matter of following a recipe to its logical conclusion.

Patricia Pardo: The way that we design curriculum, and the way that classrooms are envisioned and then implemented, or the way that the learning environment actually unfolds, is still very much in a one-size-will fit-all-learners. With a set of assumptions that assume that there is only one way of demonstrating mastery. That there is only one way of engaging a learner. That there is only one *way* of representing or sharing information. Typically, the Sage on the Stage.

Ada: The Sage on the Stage. I love the way that Pat captures the theatre of classrooms with this phrase. Notice that the Sage requires a *Stage*—teachers rely upon design elements in order to enjoy the specific kind of authority that they are performing. There's a term that may help us think more concretely about the feedback loops between the design choices of professors and learning.

(sound of chalk on chalkboard)

Ada: Today's keyword is...

Laura Grant & Joy Hodgson: Ontogeny.

Ada: The really great thing about translating one's own pedagogy into audio form is that it is so simple to bring in some TAs to help with the lesson. And so for this episode, I turned to two recent graduates from my school, Laura Grant and Joy Hodgson.

Ada: "Ontogeny": the origination and development of an organism. It's a scientific term—it refers to the entirely unique trajectory of every individual. We are of course, all of us, we're the same: we have the same DNA, we're members of the same species, but we are also, each one of us, entirely different. The way that we learn and interact with others and with our surroundings is irreducible to any generalizable mechanism. Your ontogenetic journey is how you became yourself—and it plays a crucial role in your own feedback loops. **You learn how to learn.** Ontogeny feeds into the ways in which we will open up or we will resist the dramas of learning.

Ada: Laura told me something surprising: she said that the design elements of my classroom at first seemed strange to her, even disorienting: everyone sat in a circle, there was no powerpoint. But the thing is, there is no *vacuum* when it comes to development. Our interactions with each other and our interactions with the objects around us, these all feed into our performances. There is no stepping outside of ontogeny.

Laura Grant: I know how to study for multiple choice, I've got it down pat. I know how to print out my powerpoint slides early and take notes on them. And then, all of a sudden, you come to class, and you're sitting in a circle, and you've got one of *these* scripts (rustles one of Ada's handouts), and the teacher's running around, writing on the board—like, you feel almost bare and naked, like you don't really know what to do. But then, ironically, after taking a couple of classes, I got very good at memorizing *your* script.

Ada to Laura: Exactly. So that's the thing. A teacher might seem *new* or *creative*, because it's different from the powerpoint lecture, but of course they are also mobilizing a whole set of routines that make that ship stay afloat.

Ada: I asked Joy to describe the feedback loops in classrooms that seemed especially designed around the Sage on the Stage.

Joy Hodgson: I think I switch off, for sure; it kind of feels like auto pilot: like, I've done this four times before, so I'll just crank out this same assignment on a different topic. I know what this professor's looking for, so it's easy then. I think it kind of squashes *your* creativity because you know at that point what they like and what they don't like, and you just cater to that same vein.

(music)

Erin Manning: Students are very accustomed to performing for the prof. and I find that some of them are super excited about doing their own work, which is really what I'm asking them to do. And some of them are resistant, you know? Where the students say, 'I like the structure. Why are you playing with it? I know how to do it: I know how to write a good paper. I know how to be a good bored student. Why are you asking this from me? I can see that they're struggling to understand the *ethos*: not just the

approach, but what's at stake. If in one class what's at stake is to do what the prof wants you to do, and in another class, what's at stake is to learn, then how do they *move* through those different stakes, and how do they do it without feeling disenchanting, for example, with education? Students have been trained towards that other kind of learning. So they can also—and for good reason—doubt us. And this is something I think about a lot, you know, that when I create a proposition for a class, it takes about half the class for the students to really trust me. You know, like if I'm asking them to take a risk, for example.

(music)

Ada: This is what I'm asking my students to do: to trust me, to trust this project, to take a risk. It's risky to make something creative, it's definitely risky to put it out there in the world for others to listen to. We're going to try to put into *action* what Erin Manning invites us so beautifully to explore.

Erin Manning: We need to have patience with *non*-evaluation. Do you know what I mean? **Listening for things we don't know how to listen for.**

Ada in the classroom: We don't know where this process is going to take us. What we're doing is we're trying to embody that hope of Erin Manning: that *by learning*, we create new values. You will get to pick your keyword. And you'll define it, in that little segment. And then that keyword is what's going to run through your story. It's a philosophy podcast!

Ada: What happens when *students* are the ones who identify where the drama lies? When students decide how we might bring philosophy and science together to open up risky questions about learning? When students write the scripts and conduct the interviews? What kinds of feedback loops might become possible? Stay tuned to find out.