# LC-DC Podcast Season 2, Episode 2: Teaching and Learning Critical Thinking with Dan, Natalie, and Pavel from the DSU Philosophy Club

## Transcript

### 00:00:11 Pavel

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### 00:00:39 Pavel

My name is Pavel. I work at the Learning Center and I am one of the, I mean all three of us are the executives of the Philosophy Club, so that's how we know each other. And our topic for today will be critical thinking. So before we get to that though, if you guys can introduce yourselves real quick.

### 00:00:56 Dan

Yeah, my name is Dan. I'm currently studying psychology. I've been engaged in philosophy for a little over 3 1/2 years, independently and through coursework. And yeah, I really love it.

### 00:01:11 Natalie

I'm Natalie. I also run the philosophy club with Pavel and Dan, as you just heard, and I study psychology, and I've been at Douglas since 2020.

00:01:21 Pavel

Okay, so our topic for today is critical thinking. As A philosophy club, we also, I mean, it's very important for everyone, but philosophy likes to say that they do it the most. I mean, philosophy literally has a class called critical thinking, where that's supposedly all you learn. But before we get into how we learn it and what our experiences are, I just wanted to talk about what it is conceptually, theoretically? Like what do we mean when we say critical thinking?

00:01:48 Natalie

Thinking critically about things, having a system for how you think about stuff and get to a conclusion.

00:01:58 Dan

Yeah, I think it has to do with getting to conclusions. For me, it's about evaluating claims. So whether it be one's own beliefs, one's own claims, other people's claims or claims on the internet, and evaluating them using some norms for reasoning. So critical thinkers try to use some standards for evaluating claims and changing their beliefs, whereas non-critical thinkers, they don't use the standards or they don't respect the standards in the same way.

00:02:35 Pavel

I see, okay. No, I like that answer. I mean, I like all that. I think my definition that I was going off of is the skill set of understanding ideas and the relationship between ideas, which I think is a slightly different way of essentially saying what you guys just said. I mean, you can phrase it in different ways, but I think we all have a sense that critical thinking is somehow evaluating opinions, ideas, claims. Did this person come to the right conclusion given the arguments they presented, the evidence, or did they just kind of like pull it out of their behind?

00:03:12 Pavel

I also want to talk a little bit about skills attached to critical thinking. I don't know if we want to call them critical thinking or if we want to sort of think of them as like adjacent to critical thinking. But for example, I know we talked about this a little bit before the podcast, but the ability to separate yourself from your ego, to separate your opinion from your ego, to be aware of your own biases, to, I think Natalie, you mentioned being an active listener, like a good critical thinker would also be someone who knows how to like hear other people's ideas and not just immediately like shut things down. Do you guys want to say anything on

that? Like can you think of any other skills that are not directly linked to the thinking itself that are also attached to critical thinking?

### 00:04:02 Dan

I think to me, what you're describing is maybe critical thinking and action in real time requires different sets of skills than critical thinking with more time available. So like you need conversational skills and soft skills in order to make sure your interlocutor or like your conversation partner doesn't shut down. So you need to be able to make sure you're approaching them with kindness and maybe giving them the benefit of the doubt so that their ideas can actually come out. That's part of critical thinking because you don't want to be defensive and push people's ideas away. You want to invite ideas and try to take them on their own grounds.

### 00:04:47 Dan

I think that's related to what you were saying about some kind of other psychological skills that might not necessarily be skills and abilities that might not necessarily come to mind when we first think of critical thinking in a philosophy class. Yeah, I guess like one more thing is in a typical philosophy class, critical thinking, it'll be about evaluating claims and arguments, you know, with a pencil and paper in front of you. Whereas in real time, you need to be able to piece together what people are saying and that really takes soft skills, maybe not usually thought about when critical thinking is discussed.

### 00:05:28 Pavel

I like, I mean, I like that idea. I don't personally, I struggle with what to call them. I think soft skills is a good phrase. It reminds me a lot, I know you probably know this better than me because you finished a degree, but when I was in sports science, they talked a lot about the way you're supposed to learn skills. And obviously they approached it from a physical skill perspective, from a sport perspective. But they had a whole bunch of stuff on how skills are learned, how skills are supposed to be practiced, how the optimal learning schedule is and all this stuff.

### 00:05:58 Pavel

And then they had a whole bunch of things on the side about sports psychology, which is just getting yourself in the right headspace to practice the skills. So like you might have the skill to shoot a free throw in basketball, but if it's like a really high pressure moment, you can't perform because the pressure is impeding your ability to actually use your skill.

And I think similar sort of analogy to that with critical thinking is that a lot of people maybe have the skills, like they have the intelligence, they have the techniques, they know, as you said earlier, the standard by which you're supposed to evaluate ideas. They have some sort of idea of logical fallacies, they have some idea of valid arguments, like they know how to do it.

### 00:06:37 Pavel

But then as soon as it gets to a topic that they feel very emotionally invested in, sports actually is a good example when people just support their team regardless of evidence, politics is a good example, religion maybe, like things that are very emotionally charged for people. I noticed this effect where I know this person can critically think and then it gets to their like pet topic that they're very passionate about and it's like they just drop like 20 IQ points. Like they just get way worse at it because their biases and their passions are getting in the way of the skill that they've developed in other areas. Have you noticed that when you talk to people? I mean, have you noticed that in yourself maybe? Either of you guys?

### 00:07:16 Natalie

Yes, to both. Like first, I think critical thinking, once you do it enough, like with other people is really important. Like if you just stay at home or stay in class and learn and then you don't use, I guess like the quote muscle, you're not exercising it and you only think about it for yourself. So it definitely gives you more social intelligence. I think a big thing that I learned from communications and also from philosophy club is a lot of people have conversations to win, not to have a conversation and explore a topic. So I think letting your guard down and practicing having those conversations is a good way to kind of just get better at that in general and not become so attached to your ideas and also, yeah, connecting your ideas to your self-worth.

### 00:08:05 Pavel

Yeah, so having some intellectual humility helps you access your critical thinking skills better.

### 00:08:10 Natalie

And you need that. You need people. You need to talk to people to do that.

00:08:14 Pavel

Interesting. I mean, we all know people in philosophy that critically think by themselves in their bedroom for hours, and then they come to conclusions that are, let's say, interesting, interesting conclusions to come to.

00:08:25 Dan

Yeah. I think there are two aspects to this. Let me start by saying emotions can cloud our judgment at all times, and everyone's just as susceptible to it as anyone else is, especially undergraduates that are just learning how to think. So in conversation, especially on emotionally charged topics, we tend to slip back into what Daniel Kahneman calls like system one thinking. So that's like that fast, not controlled sort of heuristic style thinking.

00:09:06 Dan

And we know that's associated with emotionality and when you have very emotionally attached attitudes towards a topic or belief, you'll tend to be less evaluative and critical about those topics. So I think a good point there would be to try and relax in these types of situations. Like I notice in myself, my heart starts beating if I get defensive about a topic. And the best way I can try and step back, try to figure out what the best way to make up my mind is, take a deep breath or try to calm down and focus on what the person's actually saying.

00:09:45 Dan

And then the second part of it, right, is external to the person. It's the people you're actually engaging with. Some people just try to rile you up. And it's not conducive to critical thinking on both sides. So noticing that and trying to remain objective in those scenarios is more difficult to do than to say, but I think that can help really bring us back into, that evaluative, critical, controlled style of thinking that's conducive to actual, real thought.

00:10:21 Pavel

So do you find that you've gotten better at that as you've, I suppose, gotten older, practiced, debated, I guess? Because I know for myself, it used to be, I mean, you say it's easier to do than to say, which, or sorry, it's easier to say than to do, which obviously, yes. But is it the kind of thing you get a sense that with practice you get better at it?

00:10:41 Dan

Yeah, I mean, I think for me personally, it never gets easier. It hasn't, at least. As I've gotten older, I think I put less of my emotion into different topics. So there are only a handful of

topics I really get emotional about. And they have to do with topics and philosophies. So if they're going to be everyday situations, I'll be pretty critical about it.

### 00:11:06 Dan

Whereas maybe before, a few years ago, I would have been a little more emotionally attached to a diverse range of things. So I guess as I've gotten older, my standards for what's worth getting emotional about have changed, and that's influenced how riled up I get. But it's still hard. Yeah, I think with anything, the difficulty never really goes away. You just get better at managing it.

### 00:11:31 Pavel

I see.

### 00:11:31 Dan

Yeah.

### 00:11:31 Pavel

What about you, Natalie?

### 00:11:32 Natalie

I think the same thing. I have a few topics that I'm always going to feel very strongly about no matter what. I think there's some stuff I'm even wrong about that I don't care that I'll just hold on to, but it just gets easier to control it and communicate it differently. Another thing I wanted to say from earlier is something that's become easier is letting people speak and give them room to change their minds and then also putting conversations like on hold and revisiting stuff instead of trying to solve it immediately in the moment. Like sometimes at even at Philosophy Club, we have to interrupt conversations because we try to do too much all at once and it's good to just take a step back and think on stuff even for 20 minutes or ideally a day.

### 00:12:20 Pavel

Yeah, that's fair. I think in general, getting some distance always helps. I mean, I know this as a writing tutor, with writing, one of the best things you can do is to just take a step back, come back with fresh eyes and revise then. Because if you try and do it all at once, like you just sort of get like fuzz in your head. Like it's hard to do it all at once. You have to take breaks, revise, take breaks, revise. I think it's the same with like any ideas that you're like mulching on in your head as far as critical thinking goes.

00:12:46 Pavel

If there's something that you're struggling with and thinking about it, then it's like, well, I don't know if I believe this or that. I'm trying to think of it. I'm debating with my friend. It helps. I mean, I know you and I have done this when we've argued about AI or whatever we argued about in the past. Like we've taken some days off and then continued the argument where we left off previously.

00:13:06 Natalie

It's more fun that way too. It's like, well, now I have something else to say.

00:13:09 Pavel

Yeah, nice. It's ongoing. So I mean, we talked about a little bit about, I mean, the struggles of accessing your critical thinking skills in controversial topics or emotionally charged topics. One thing I want to touch on throughout our discussion today is how we can teach critical thinking better or how it can be taught better in general, because it's something you hear in every class. I mean, virtually every class or every professor, every teacher from high school onward will be emphasizing how important critical thinking is.

00:13:43 Pavel

Everyone claims to try and teach it as best they can. We have entire classes in philosophy, which are the whole class is just critical thinking or supposedly. And yet pretty much everyone I talk to always has criticisms. Everyone always says, oh, we should do it better. So how is this thing that we all want to teach and we all do try to teach and yet everyone always says it can be done better. So why aren't we, like I want to talk a little bit about the difficulties of actually teaching it and maybe what we can do better or why we can't or anything like that. So before we get into that, though, we have to discuss a little bit of how it's actually taught. Have you guys taken the critical thinking class here at Douglas?

00:14:20 Dan

Yeah, a while back.

00:14:22 Pavel

A while back, Natalie?

00:14:23 Natalie

I took part of it.

00:14:25 Pavel

I took it a while back as well. I mean, it was, but what was your class like? Talk to me a little about, like, what did you do in that class? Right, this isn't a whole class supposed to teach critical thinking. So like, what do you do?

00:14:37 Dan

Yeah, I mean, I remember going over logical fallacies, so informal thinking. I guess informal reasoning, what makes a good argument, evaluating claims. So we would look at a basic syllogism, for example, and try to ask ourselves, okay, is that something that's, is the conclusion that's drawn from these premises true? So I guess that would be an example of formal reasoning.

00:15:08 Dan

But for the informal aspect, we would take a paragraph, for example, read that paragraph, and then ask ourselves, okay, where's the conclusion? What are the supporting premises? And is the conclusion supported?

00:15:24 Pavel

So identifying the basic building blocks of the argument, the structure of the argument, the logic behind it, that sort of thing.

00:15:30 Dan

And trying not to get muddled into the rhetoric, because especially in textbooks or articles or news media, there will be rhetoric that tries to make a point more forceful. And so in that class, I guess we learn to try and look at the bare bones of the argument without the rhetoric, without the emotion, figure out what's actually being said.

00:15:57 Pavel

That's it. Yeah, I remember doing the same thing. I remember pretty much my experience was the same as what you said. We went over logical fallacies, then we did practice examples to like spot the logical fallacy. Then we went over like the structure of an argument, premise, conclusion, what makes a valid argument, that sort of thing. And I think it was useful for me. I mean, again, I took it in second year, so I had a little bit more of like confidence going into it. Like I felt comfortable at the school. It was useful to go through all the practice scenarios. And I feel like if you just teach me the logical fallacies, it doesn't mean anything.

### 00:16:30 Pavel

I think Natalie, you mentioned earlier how if you just learn it and then you go home and you never do it again, it's like a stick, you just forget it the next month, right? But the practice, I think, is what really cements it. And I think if you then take that and you practice it, which I don't know how you would do that, I guess you'd go home and just argue with somebody about stuff and call them out on their logical fallacies. But personally, I feel like most of the critical thinking I learned, I got the blueprint for it maybe in classes, but the real learning happened when I go and debate you guys after class or some other friends. I feel like the practice with any skillset is what's actually doing the heavy lifting here. I mean, would you agree with that?

### 00:17:11 Natalie

Yeah. Also, I think, like I only took part of the class I think I was in for about a month and a half. And I'm not like a fan of math or anything like that, but something that was really helpful is like learning the basics of language and then learning how to like put an argument into a structure instead of having it kind of be all over your mind. Like I don't, I can't say I use that directly, but it was helpful to know that there's a way to go about it and make it more mathematical. And then you can kind of apply that from there when you have conversations. Like it just helps keep you in line a little bit.

### 00:17:48 Pavel

Yeah, I think that's fair. I mean, I do know some of our friends still put arguments on premise, premise, conclusion, the way you're taught in philosophy. It's a little formal for my liking, but I mean, it's nice to think of it in that way. When you're really struggling, when you really have a disagreement with someone and you're struggling to figure out why, I think it's useful to be able to break it down like that. But I don't typically do it like that in my day-to-day conversations.

### 00:18:13 Natalie

Yeah, like in your mind, I think it's good to break it down. But if you say premise, premise conclusion to a human, it doesn't, it's not always, you know?

### 00:18:21 Pavel

Soft skills.

### 00:18:22 Natalie

Yeah.

00:18:23 Dan

I mean, I think it depends, right? Like if you're in a conversation and you really want to hash out some disagreement, making your point as explicit and clear as possible is going towards that end. Whereas usually if you're packaging up your claim in normal talk, just like everyday speak, you risk losing some of the clarity and thus introducing some room for interpretation that might not be what you ask for.

00:18:57 Dan

So the person you're talking to might be led astray by certain ways of speaking, whereas using premise premise conclusion format or more structured format even in conversations might help deliver the message as clearly as possible. And even if like, I think maybe one tangent on that, it's really uncomfortable to put arguments in premise, premise, conclusion, because most of the time you figure out that you're wrong when you put it explicitly like that and you realize what you believe actually doesn't make any sense and has no base and reason.

00:19:35 Dan

So I think it's a good practice just to do whenever you're evaluating your own claims, but also in real time. If you can't do that, it's probably a good heuristic that you're maybe not on the right track.

00:19:44 Pavel

Interesting. Okay, that's a good point. That's fair.

00:19:47 Natalie

I actually don't know if I entirely agree with that if you're just having like a common sense type conversation. Because sometimes points just look like, well, it's like, well, technically I could say this, and then it's like, well, okay, but should you do that? And doesn't mean that you're wrong just because your premise, premise conclusion doesn't line up. But I do think for the most part, you're right. It is good to at least be able to do it, but I don't think it always points you in a certain direction.

00:20:17 Pavel

I think it depends on exactly what you're discussing. I mean, if you struggle to phrase your argument in more formal terms, then I think you might need to do a bit more thinking on exactly what your argument is. Sometimes I know I have opinions in my head that are kind of a little over the place and I try to write them down, even if it's not totally formal. If I just

try to write them down and have it on words on a page in front of me, I realize that actually I'm not entirely sure what I'm trying to say and it forces me to think a bit more clearly.

### 00:20:51 Pavel

But yeah, so in sports science, when we learn about practicing a new skill set, and we're going back to physical skills, but I think there's parallels here. The way that they essentially taught us how you're supposed to coach somebody is you have them perform the skill set, whatever it is, like a tennis swing, a basketball free throw, whatever the skill they're practicing is, they perform it, and then you notice what they did wrong, you give feedback. They try again. I'm simplifying it, of course, but that's the rough idea.

### 00:21:22 Pavel

And it's like this with a lot of things. I mean, it's like this when you're tutoring somebody. A lot of the useful things to do is you show them how to do it, then you watch them do it, and then you give them feedback on what they did wrong that is appropriate for their level so they can then go up a level. They can do a little bit better the next time, do it again, feedback, improve here, improve here, do it again, feedback. And you just do this over and over again until you get better.

### 00:21:45 Pavel

I think the issue with doing that with critical thinking is that we, and by we I just mean people, we do have a fair amount of ego, I think, attached to our mental processes, to our opinions. Like if I go and I practice a basketball free throw and then a much better basketball player tells me, hey, do it like this instead, it's better. I don't only feel like I'm lesser than just because I'm not good at free throwing. Like it's whatever I'm just learning.

### 00:22:15 Pavel

But if I have an opinion and somebody that's a better critical thinker than me corrects me and says, you actually made a mistake here, you should think better like this. I think that tends to hit the ego for people a lot more. People tend to take that personally a lot more than they do with feedback on other things. And I think that's a challenge because part of the idea that I'm playing with is that to be a good critical thinker, one very important skill set is intellectual humility, like the ability to acknowledge where you messed up and then do better and like receive feedback, do better.

### 00:22:46 Pavel

And I think it's very hard for a lot of us to be that level of intellectually humble because, you know, it just, it hits you, like it hits your self-esteem, it hits your self-image when you're getting criticized on your opinions, especially if it's an opinion on a sensitive topic that you feel a lot about. Do you have anything you want to add to that or any counterpoints or ideas on how to get around that?

### 00:23:13 Natalie

I think it's okay to have a big ego and have it be bruised as long as you know how to do that and then be graceful moving forward. Even if you get offended or you don't like what someone's saying, I think it's okay to take that in as long as you can kind of put it to the side and respond appropriately in the moment. But for the most part, yes, like I think most people kind of need to come back down to earth about their ideas.

### 00:23:44 Natalie

And I don't know why it's like it feels more hurtful to have your ego hurt over like a thought experiment rather than throwing a basketball. But it just does. But I don't think that's something that ever fully goes away for most people, so it's better to just work with it rather than pretend like it's not there.

### 00:24:05 Pavel

I wonder if maybe practice, I mean, so I'm toying with this idea that one thing our education systems can do better is challenge people more on that point exactly. Now, I don't, I can foresee a million problems with this from like, you know, crying kids with a parent came in and said, you made my kid feel stupid to all kinds of other issues, right? But I'm struggling with this balance between If I want to teach people critical thinking, they need to be challenged. They need to be like, you're probably going to have a moment when you feel dumb, I think. If you're like learning it, if you're not good at it yet and you're learning it, I think it's a natural part of the process that you're going to go, oh, wow, I'm not very good at this. I feel kind of dumb right now.

### 00:24:49 Pavel

But to like separate that feeling from your like deeper self-esteem and ego, I think it's very important for you to actually get through that and get better at it. The people that I know who are best at critical thinking are the people that when they get something wrong, they just shrug it off and they just learn, improve, and move on. They don't actually take it personally if you point out some error in their thought process. But those people are rare.

### 00:25:16 Pavel

And I'm trying to figure out how we as a system, we as educators, as a society, how can we create more people like that? How can we teach people to detach their ego from their opinions so that they can then, because I feel like it's better for all of us to learn how to do that, not just for people in academia, but for anyone. But I feel like we don't teach the soft skills, as you put it on critical thinking, as much as we teach the logical fallacies and the formal logic, but then it comes to like the actual soft skills or the self-regulation skills or the social skills that come with it. I feel like those don't get practiced a lot because it's just challenging.

### 00:25:54 Pavel

I feel like we get to practice it more in philosophy club, but that's kind of an environment that's understood to be like that. And so if you're not into that, you sort of filter yourself out. The people who don't want their ideas challenged tend to not go to places like that. But I have a feeling like most of academia should be like this. I have a feeling like I think most of academia should be bigger on challenging poor critical thinking ideas, especially for undergrad. And I personally have had a sense throughout my undergrad that sometimes it's just easier not to challenge people. And so stuff gets kind of passed through and that people don't learn. But I don't know, I struggle with this personally.

### 00:26:38 Dan

Yeah, I think that's an important point. It's easier to teach the mechanical skills. By that I mean noticing informal fallacies or putting arguments into premise premise premise conclusion and using logical formats. It's easier to teach those kinds of things because you can give pretty clear feedback on them in the form of a grade or an evaluation. Whereas it's harder to teach people how to put their ego aside when they're trying to figure out what's right and what's wrong or what they should do. I totally get that tension. I think it's real.

### 00:27:18 Dan

I think one thing that could help, and I don't even know how this would be implemented, but try and make people more curious about the world. If you're more curious about what's right, you might be less attached to being right, so to speak. So if I'm really curious about what the best, I don't know, form of cardiovascular exercise is for a 35 year old woman, let's say I'm a personal trainer. If I'm someone who's curious about what's the correct answer to that question, I'll do research. I'll try and figure out what leading experts think.

00:28:06 Dan

If I'm someone who's curious about being right, I will just buckle down on my previous beliefs. And I think curious people and curiosity fosters this kind of ego, like setting aside your ego. Because if you're really curious, it's not about you.

00:28:29 Pavel

So is there any way you can think of to maybe encourage that level of intellectual curiosity in people? Is there something that we're doing wrong that's maybe, because I mean, some people say school stifles curiosity in people. I don't know if I agree with that, but it's a criticism I've heard of the education system. Um So is, is there anything, I mean, is there any classes that maybe stand out to you that did that for you that maybe made you go, oh wow, I didn't realize this is out there. I'm more curious now or, or vice versa. I mean, for you too, Natalie.

00:28:59 Natalie

Um I think the first thing is like pretty much mostly what Dan said is like making people more curious. And I think from a really young age people, again, like I said this earlier, are not taught to like have a conversation for curiosity, like they're taught to compete with people. And it's like being good, being right is good and being wrong is bad. And like there's all this stuff behind it.

00:29:22 Pavel

So where do you think this comes from? Sorry to interrupt you, but you said they're taught this. I mean, I kind of agree with you, but I'm also thinking none of my teachers taught me this.

00:29:29 Natalie

I don't think it's direct.

00:29:30 Pavel

So where do we learn it?

00:29:31 Natalie

I think it's like socialized more than anything. And I think especially like, people who are parents or they like don't work in education or they don't have the same connection to like knowledge and like even like post-secondary or education in general. A lot of people just kind of operate off of intuition and like what they were taught and it's a very outdated way of

thinking to try and like compete with someone because you miss so much information and that's why like being an active listener and learning like even just basic emotional regulation and having like a secure sense of self.

### 00:30:13 Natalie

And that has to be taught from a young age. And you can't obviously, you can learn that when you're older, but it's like Dan said, it's about yeah.

### 00:30:20 Pavel

So essentially, if I can understand you, I, you're putting part of the responsibility here, not just on academics and teachers, like this is a society wide thing. I mean, kids have to be raised to be appreciate critical thinking. Like if you're obviously raised to appreciate critical thinking more or taught that from a young age, you're probably going to do a lot better in school.

### 00:30:41 Natalie

Yeah. And that's also like you've heard me say this a million times, but like working in customer service is part of the reason why this stuff is so important. Like you kind of just get put in situations where you have to deal with it and you have to deal with it in a certain way. But there are other ways too. And I'm sure that there could be a class or something that could be implemented into the public school system that could help with it, or even just workshops or whatever else. But not 100% sure.

### 00:31:17 Pavel

No, I think that's fair points. And I think we can always just push the boundary further back and say that kids should be taught this and that at an earlier age. At a certain point, I do feel like, I mean, all that is valid and true. But for us in college, say if you're a college educator, at some point you just have what you have. Like the students that come to you are the students that come to you and they've learned what they've learned.

### 00:31:41 Pavel

So from that point of view, once they're in college, let's say you're a philosophy professor now, you're teaching the critical thinking class at Douglas and you just have 30 students and they're whatever they are. What can we do in that scenario to encourage, to teach critical thinking better, to encourage, I mean, I'm playing, let me give you an idea, for example, let's see what you think of it.

00:32:06 Pavel

For encouraging curiosity and intellectual curiosity and just getting people to think outside their current box, one thing that I found quite useful, and this came a little bit from my classes, but a lot of it from philosophy clubs, I really enjoyed hearing wild hot takes, like just crazy, like I can't believe somebody thinks this. And then I listen to them and they actually start making their argument. And I have this moment of like, oh damn, that actually kind of makes sense. I hate that this makes sense.

00:32:35 Pavel

Like that feeling, I don't know if you've ever had this in any of our conversations or with anybody else, but that feeling of like watching somebody take a ridiculous idea and then unwrap it in a way that actually starts to make sense. That for me triggered a certain level of appreciation for critical thinking, curiosity of like what, because it's just some of the friends that we've had at Douglas over the years, like they've just done this for me where I go like, wow, I can't believe this person would actually come up with these ideas or these opinions.

00:33:06 Pavel

I've had this with academics as well where maybe some professor will say something or I'll talk to them in office hours and I go, really? I can't believe. And it just makes me realize that there's such a range of opinions out there. There's such a range of ways or like different takes and they're not necessarily bad. Like actually hearing a take that on the surface sounds terrible and then hearing someone defend it well opened my eyes to just how much there is that I don't, that I haven't thought of. Have you guys had a similar experience or anything like this?

00:33:39 Dan

I tend to, for me, no, because I tend to use the heuristic that if something just sounds completely wild and I'm given some rationalization for it, doesn't necessarily mean the claim is true, because there's still that extremely wild aspect of it. If something's really wild, it really needs a lot of argument for me. So, you know, I hear one person be able to defend a crazy hot take. It's like, okay, maybe this person spends a lot of time just thinking about this crazy hot take and he wants to impress people or she wants to impress people. So for me, it's not really the case.

00:34:18 Pavel

Okay, interesting.

00:34:19 Dan

Yeah.

00:34:20 Pavel

So what does trigger your curiosity then? I mean, if you've gotten more intellectually curious at different times or something like what does that for you? Like what can an instructor do, for example, in your class to make the class encourage more curiosity?

00:34:37 Dan

I think I wanted to bring this up, like there's the study I recently learned about with, having to do with attributions. So like an attribution is essentially something that you think of yourself that can be an attribution that you put on yourself that explains why you do some behavior. And attributions can be used to modify behavior. So there's a social psychology study where teachers actually try to modify children's littering behavior in classes.

00:35:12 Dan

One group gets internal attributions, so the kids are told, you guys are really clean and tidy people. The other group is given a lecture on tidiness and cleanliness, and then there's just a control group that gets nothing. Turns out that the attribution group, the ones that are told that they're cleanly and tidy, they actually persisted in cleanliness and tidiness throughout multiple months. Whereas just the lecture group, they had a little bit of a spike in cleanliness at the beginning and then they went back to littering.

00:35:50 Dan

So what can a professor do, you know, just judging by the study, what can a professor do to make people more curious? Maybe tell students that they are curious and it's worth being curious. Advertise curiosity. Maybe put posters up where there's people reading and thinking and question marks around. Make accessible the concept of curiosity. Because I think one other thing that influences our behavior is how accessible different concepts are. So if you're going around, campus, for example, is a great place to be a critical thinker because, like a university campus, because everyone is trying their best to learn and to be curious. And if you're at a university, most likely people are there because they're paying and so they're trying hard.

00:36:35 Pavel

That's a very interesting point. I mean, I like that a lot because when I think about it, I mean, I don't really get the sense that curiosity, like if I ask anybody, is it good to be intellectually

curious? Everybody will say yes. But then if I think about how our classes actually go, having a well-argued opinion that you stand by is rewarded. You're told in your academic essays that you're supposed to take a stand and argue for it. That's how our discussions usually go. We claim to value curiosity a little bit, but in practice, I feel like we don't actually model that, especially for first years coming in.

### 00:37:14 Pavel

I like your idea a lot. I like the idea of essentially popularizing saying, I don't know. I like that a lot when somebody, when I ask, for example, a professor a question that is maybe a little bit outside of their field and they just say, listen, I don't know, I'll look it up and get back to your next class. I think that models a much better behavior than just always expecting everyone to have the answer, saying if you have the answer, you're better than the people who don't have the answer. I mean, nobody actually says this, but that's sort of the implication behind the way we structure a lot of our things. So I really like your idea. I have to think about it more, but I really like the idea of like, just modeling curiosity for the students, telling them that it's okay to be curious, encouraging them to be curious, rewarding curiosity, encourage them. Yeah, I just like that idea quite a bit.

### 00:38:01 Dan

Yeah, because I guess the more structured for assignments, for example, the more structured the assignment is, the less you have to dig around. So maybe one other way to kind of make students want to be more curious is to give them like a list of possible essay topics rather than just tell them, okay, this is what you have to write on. Like for example, I've been given an essay recently and it has to be on this one topic. It can't be on anything else. Whereas I really loved my neuropsychology class where the professor said, pick a topic, tell me what you're going to do it on and write it.

### 00:38:41 Dan

I got to pick what I wanted I referenced more articles than I have ever referenced. I went deeper into the research than I ever went because I was curious about that topic and I really wanted to do well just internally. So giving people autonomy, I think is another point.

### 00:38:58 Pavel

Yeah, that's fair. That's fair. I mean, that does help quite a lot. Natalie, do you have anything you want to add on this?

### 00:39:04 Natalie

Yeah, I think just like going back to your hot takes thing, I think in general, of course, it's always good to hear opposite opinions and even talk about stuff that's outside your comfort zone. But you still have to start from the place of, okay, lower your ego, be curious, be open-minded, and you can't really do that without having those feelings in the 1st place. I hope that makes sense. Like you can expose someone to all kinds of different ideas and they can hear everything, but if they don't know, how to hear it and how to even respond appropriately when they don't agree with you. Like it's almost, it's almost useless.

### 00:39:48 Natalie

But yeah, something that I also like doing is like I, you guys know like there's topics I don't like talking about and just, I just don't like it. So once in a while I try to, I try to participate in my own capacity and I think just like kind of dipping your toe in with topics that make you uncomfortable and put you in a position where you don't know much about it and just ask a lot of questions. And then, yeah, Dan just brought up learning about brains, like neuropsych and like, what was it? Which classes were they? Yeah, cognitive psych, neuropsych and social cognition.

### 00:40:26 Natalie

I think like learning how people think in a very structured way should help most people instead of just like, I think a lot of people think about thinking as in this is very abstract. I can think what I want because I can just think what I want without understanding how much control we actually have. And learning about your own brain is a really good way to get in tune and gain control.

### 00:40:54 Pavel

Awesome. Okay, I agree with all that. So real quick, I wanted to ask you guys, so I don't have a great transition to this, but it's a topic that we've kind of touched on a little bit. When it comes to critical thinking, the actual speaker versus the listener, how much responsibility is on each to get the point across? Like how much responsibility is on the speaker to speak clearly? We've talked a little bit about different ways to do it, about how you can structure your argument to be more clear, but how much is also on the listener to not straw man, to not ad hominem, to be an active listener, to actually try and hear what the person is trying to say, not like just be listening for the part where you can argue so you can win the argument? Like how much responsibility is on the listener to be doing the critical thinking and how much is on the speaker or does it depend?

### 00:41:48 Natalie

I think ideally you're both people in the conversation and you should kind of try to be doing both and balancing both as best as you can but I've never been asked this question, so if I'm just answering it right now, I think that there's almost more responsibility on the listener than there is on the speaker.

### 00:42:10 Pavel

I see. Dan, would you agree with that?

### 00:42:13 Dan

I don't know.

### 00:42:14 Pavel

No, yeah, no, I don't know.

### 00:42:16 Natalie

I don't know. Like, I don't entirely know.

### 00:42:18 Pavel

I feel like the easiest answer is both. I mean, you can definitely say both. Another answer I'm toying with is whoever is more experienced or better at it, arguably. I don't know if you guys get this, but I'm TAing a first year class right now. Definitely talking to some first years, there's a sense of like, okay, I've done this longer than you have. Like, I'm not saying I'm smarter than you, but I'm clearly better at the skill set than you are right now because you just got here. In that sort of context, I feel like whoever's more experienced, whether you're the listener or the speaker, it's on you to like also hold the other person's hand a little bit. Does that make sense?

### 00:42:56 Pavel

Like if you're, if they're speaking, and they're trying to make a point and you're listening and you're a better critical thinker than they are for whatever reason. Maybe you've just been doing it longer. Maybe you're just older, whatever. I feel like a really good thing that you can do instead of just beating them because you're better than them at critical thinking, help them make their argument for them. Like if they're saying, something, but they're not phrasing it well, can be like, do you actually mean it like this? Or if you want to strengthen your argument, this is how you want to do it. And in that way, you're actually helping them. But you're sort of, you're entering the conversation as a, like not as an opponent, but as a

partner, if that makes sense, as a coach almost. Have you found yourself in those sort of situations?

### 00:43:43 Dan

Yeah, I think it brings up an interesting point. So if we imagine someone who is maybe a first year who's trying to get a point across, but isn't finding the right words or argument structure, we could think of that as maybe a misalignment between their words and their thoughts. And if you're with someone that first year speaking to a more advanced student or professor, the professor can listen for the thought and try to align the words with the thought for them. And so that's like that collaborative bit you were talking about.

### 00:44:19 Dan

And I think thinking of it that way, as you go through education, you learn to align your thoughts better with your words. So at that point, you become the mentor for the new first year that's trying to align their thoughts with their words. I think I've been in situations like that. And I do take an approach of, okay, I think in general, when someone's trying to tell me something, I don't only listen to what they're saying unless I think they're at my level or competent in aligning their words with their thoughts. And not competent in the sense that they're better than people who can't, but they've had more practice.

### 00:45:01 Dan

There are just some people who are really good at expressing themselves. Those people I think you can engage a little bit differently than you would someone who's maybe struggling to convey their thoughts.

### 00:45:15 Pavel

Yeah, that's fair.

### 00:45:16 Dan

So I think maybe to answer your original question, who gets more responsibility, I think you've identified a key point, that being the level at which you're talking or you're listening at, you're someone who's a little bit more experienced. Your responsibility might be mentor or collaborator or if you're speaking, make sure that you're speaking at the level of the person that's listening.

00:45:48 Pavel

That's a fair point. Yeah, that's a very, as a speaker, you have to meet people where they're at. That's true as well. Okay, I have one more thing I wanted to discuss, and then we can maybe open it up a little. But I have an idea for teaching critical thinking. Or just on assignment, I think this is a good idea in general. But I want you guys to tell me if this is actually a good idea because I haven't shared with anyone so far.

00:46:13 Pavel

I think it'd be really cool for a professor who's trying to teach critical thinking or any sort of critical analysis to make an assignment where the students have to argue the same topic twice from opposing directions. And then the mark you get is an aggregate of the, so whichever, if you, for example, want to argue something about AI and you want to be on one side, we should ban all AI from schools, on the other side, we shouldn't, you have to make an essay for both. So like maybe one at the beginning of the term, one at the end or whatever. And then whichever one you did the lower mark on, that's the mark you get. Or maybe an aggregate of the two marks if you want to be less harsh.

00:46:53 Pavel

And the reason I've had this idea for a while and I kind of want to find some professor to pitch it to, see if they think it's a good call, because we encourage people who are writing essays, we encourage people to think critically through their writing a lot of time by telling them you should have a counterpoint, you should have a counter argument, you should consider the counter opposition or whatever. And we teach them, I mean, even in the learning center, we teach them have maybe halfway through your paper, like a counter point paragraph. We have a paragraph that's just the opposite of your argument. So you acknowledge that you've at least looked at the other point of view. And in my experience, this becomes very tokenistic and people just kind of throw in like a few sentences, but they don't really consider the other point of view.

00:47:36 Pavel

I think it'd be a very good exercise and very good challenge, especially if it's on a more sensitive topic for people to try and argue both sides of the topic. And then like if you argue one side very well and the other side very poorly, you get a bad mark because you haven't actually considered both sides. You've just done the really biased thing. And I think this assignment will be quite useful for helping people just consider ideas without bias or at least try and consider from multiple sides. I think this is a great idea and I think I'm a genius for coming up with it. What do you guys think?

### 00:48:10 Natalie

I support that. I think we did exercises kind of like that in my communications classes and like the conflict management ones where we just think at least we read or watched something and then thought about and talked about how we interpreted it as a group and then everything kind of gets brought up together or we read something and it's like, why might this person think this way or why might they think or communicate that way? So like any assignment where you were, quote, forced to look at the other side and actually deliver is super important, I think.

### 00:48:49 Natalie

Otherwise people kind of just gravitate towards what they're comfortable with, which in some classes is good, like dancing, like in my neuropsych class, I was really happy I was given freedom, but I also do appreciate when I have a structured assignment I kind of can't worm my way out of.

### 00:49:07 Dan

Yeah, I think that's a great assignment, to be honest. I think we run up against cognitive dissonance when we're challenged with different points, and we run up against even more cognitive dissonance when we have to think against our attitudes. So when you hold in your mind a belief that goes counter to or is inconsistent with a belief that you actually hold or believe in, that just causes a lot of internal tension.

### 00:49:39 Dan

And part of what we were saying earlier, leaving your ego at the door, is learning how to manage that internal tension. So by practicing that in a relatively safe environment, like an assignment, I think that would be a good way to exercise that skill. Now, maybe I wouldn't be so harsh with the grading. Maybe make it more of an informal assessment or some sort of thing that students can really let themselves explore ideas without being too pressed for a mark. But yeah, I think that's great. Yeah, it's a great assignment.

### 00:50:22 Dan

That's fair. What about slightly related, but also not exactly. What do you think of forcing students to engage with more controversial topics or with emotionally charged topics? Because we talked a little bit about how as soon as things get emotionally charged, it's harder to think critically for all of us. We also don't want to be like, hey, students, talk about this extremely traumatic topic for you or else you failed. I mean, so we can't force people to talk about extreme. It's like, how do we draw the line?

### 00:50:55 Pavel

Do you think, I guess maybe my question would be in your sense as undergraduate students, you know, we've all been here for a while. Do you wish, maybe I'll put my opinion on the line. I kind of wish that on average, maybe we had like 10, 20% more push from the system, like all of us, to engage with things that are not completely safe emotionally, that are not like, because I feel like when you're completely safe emotionally, it's so easy to detach and to practice the skills, but then you don't practice the actual emotional skill of regulating yourself. So is there utility, do you think, of maybe pushing more controversial conversations of pushing more just to get people to practice that level or is that just too much of A hassle? Is that like going to cause more problems than it's worth?

### 00:51:52 Natalie

I 110% support it. I would probably push that to like 30% more even. And like not to like self-advertise or gas us up too much, but I think what we do at Philosophy Club is so important for that reason. Because even if you don't contribute, it's still important to be in the presence of an argument that you might not normally engage with or just like listen to a conversation that you might normally try to avoid without having pressure to respond because even hearing it is important and people talk to each other less and less now with the internet.

### 00:52:31 Natalie

And another thing that I learned that I don't know how popular this idea is in general but I was taught in communications that like space, sorry, safe spaces don't exist and you kind of shouldn't really assume that they do because someone's always gonna think something. And if the space is completely safe, then it may be an echo chamber. So yeah, professors in general should try to do more engaging activities that force us to talk to each other because even just being exposed to an idea that isn't very like deep and controversial. Like maybe you're just talking to someone that you saw on the other side of the room that you don't like that much for no reason. Like that's even important and we need to talk to more people in general.

### 00:53:23 Dan

Yeah, I think I would agree in principle, there's a zone of optimal anxiety here. I think there's a maybe with this sort of thing, I would expect a curvilinear relationship between the amount of pressure we put on students to engage in these controversial topics and how educationally. Yeah. So if we think of, let's say we have right now 10% of the time we're

given the opportunity to engage with controversial topics. I don't know if that's true or not. I don't know.

### 00:54:03 Dan

Let's say that is supposed to translate to helping students be more emotionally managed, like manage their emotions better in conversations, critical think better, leave their ego at the door. Presumably it's about giving students the opportunity to think uncomfortable thoughts. If we bump that up to maybe 50% of the time, students might be so uncomfortable that it might actually have a negative effect. They might disengage from the assignments. They might not think, they might get more emotional on average than before.

### 00:54:42 Dan

Whereas maybe if we bump it up by 30%, that might be the optimal zone. The optimal amount of anxiety you get from engaging with crazy thoughts to where your emotional regulation actually improves the best. So if you think on an XY axis, the Y axis is improved emotional regulation. The x-axis is anxiety you get from like number of controversial topics engaged with in a week. You know, the more you get for the controversial topics, the less you get on the far end for like managing your emotions.

### 00:55:24 Dan

Whereas in the sweet spot, kind of in the middle, you have like maybe 20, you get some optimal effect for your emotional regulation. So for this, I think it's just a practical issue.

### 00:55:40 Pavel

Yeah, I think I agree with you guys. There is an optimal level. I think we do have practical issues hitting that because it's a lot easier to just not deal with those students being anxious in your classes. But I think if we're, if we're being very utopian and we're trying to like perfect the critical thinking methods. But I think this already happens to a degree in class. Maybe I'm just being nitpicky about wanting it more. But I personally found like I wanted it a little bit more in some of my classes. But I guess that maybe that mileage varies from person to person.

### 00:56:10 Natalie

You should not really show up to your classes and just like expect a passive experience though and then expect to learn something from it. if you're not being challenged in class, not every day, but or even just a little bit, every class is still really important. And then one more thing I wanted to add, again, took from conflict management classes is like, I think

one of the biggest things is people feeling autonomy and the more people practice stuff, the more autonomy they gain over themselves and that gives them more control.

### 00:56:47 Natalie

And as soon as you feel like you're in control or have control of a conversation or just of yourself, like things get better. So when you're put in situations like that, you gain self-control and that's just ideal.

### 00:56:59 Pavel

I think that's very important. If we don't help people practice these moments here in a safe environment, they feel less comfortable doing it in the real world and then they go their whole life avoiding anxiety provoking conversations and just keeping the same opinions their whole existence. Yeah. Okay, fair enough. Any closing thoughts for you guys? I feel like we covered everything I wanted to cover.

### 00:57:25 Dan

I think it's difficult to deal with these sort of issues, especially if you're learning, because you have to juggle the emotional aspect we've talked about, the mechanical skills that we mentioned, and then putting it all together in conversation or in real time is, it's a headache. So as a new learner, one thing I would advise is not to worry too much about the end outcome, but focus on one skill at a time.

### 00:57:55 Dan

Practice that one skill, maybe try and do the exercise. Pavel, you mentioned, write a short essay arguing for one topic, then argue it from the other point of view, do these little exercises. frequently and as often as you can, I guess. And that way you'll improve without having to worry about like, oh my God, am I there? Am I a critical thinker yet?

### 00:58:25 Natalie

I think also just like don't take it too seriously. Like I think learning these kind of things is supposed to be a little bit awkward and embarrassing and make you feel silly and that's literally the entire point. So if you can get on board with exposing yourself to that, then you'll be fine.

### 00:58:44 Pavel

Perfect. Awesome. Well, thank you, Dan and Natalie, for doing this.

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### 00:58:48 Natalie

Thanks, Pavel.

### 00:58:49 Pavel

And see you next time.

### 00:58:51 Natalie

Bye.

### 00:58:52 Pavel

Well, that's it for today. Thank you for listening. Just a reminder, the Douglas College Learning Center, which provided this podcast, also provides one-on-one peer tutoring for all Douglas College students. You can book an appointment at either campus or online. For more information, feel free to go check out our website at library.douglascollege.ca/learning center.

### 00:59:18 Pavel

Also, if you're interested in more philosophical discussions or critical thinking discussions, feel free to check out the Douglas College Philosophy Club. We have meetings every Thursday at 6.30pm in the Anvil Tower. That's in Anvil Tower, room 712 every Thursday at 6.30pm. We just gather for a few hours every week. We pick a topic collectively, something that people want to talk about that week, and we just chit chat for a few hours. So if you're interested in checking it out, feel free to come by on Thursdays. That's all from us for now. Thank you.