Mary Alice Yeskey

Welcome to the Hopkins Press Podcast. I'm Mary Alice Yeskey with the Hopkins Press Journals Division. Our guest today is Nicholas Tilmes. He is a JD candidate at New York University School of Law. Previously, he served as program manager and research assistant at the NYU Center for Bioethics. His research focuses on the intersection of cognition, law, and technology, ranging from disability rights to neurotechnology and AI.

He holds an MA in bioethics from NYU and a BA in philosophy and psychology from Cornell. He joins us today to discuss his paper published in the latest issue of the journal *Philosophy, Psychiatry, and Psychology*, which examines the areas of psychological diagnosis that are vague or indeterminate, and philosophical ways that this vagueness can be reckoned with. Thank you so much for joining us today, Dr. Tilmes. I really appreciate you taking the time to talk to us about your paper.

Nicholas Tilmes

Oh, absolutely. It's a pleasure to be on here.

Mary Alice Yeskey

The first question we'd like to ask our guests is, can you tell us your academic origin story? How did you come to study the philosophy of psychiatry?

Nicholas Tilmes

So, my origin story is a bit convoluted, but I think looking back, it started coming together. As an undergrad, I mostly studied philosophy and psychology, because I guess I was interested in thinking and also thinking about thinking, how we arrive at and ground our beliefs. And throughout undergrad, a lot of my interests were sort of on these two separate tracks. Formerly, a lot of my coursework—my research—was on philosophy of mind and free will, and I was very interested in studying the differences between people's everyday intuitions, about philosophical puzzles, and then philosophers' intuitions, because it turns out we're usually a bit on the odd end. And it turns out that when philosophers take their own intuitions as universal, sometimes their predictions end up being wildly off. And then at the same time, you know, I was doing a lot of debate, probably too much of it.

Mary Alice Yeskey

(laughter) Sorry, does anyone ever do like, not enough debate? It's like that doesn't exist.

Nicholas Tilmes

Yeah, there isn't a healthy amount.

Mary Alice Yeskey

I've never met somebody who was like, "I dabbled in debate. "

Nicholas Tilmes

[Laughs] Yeah, absolutely. But I was reading a lot of disability studies—

Mary Alice Yeskey

Oh, okay.

Nicholas Tilmes

—as I was doing it. And that was something I never really encountered in formal philosophy because the two are often very cloistered off from each other. And that changed for me in graduate school when I was studying bioethics, and suddenly these two sort of interests of mind, philosophy and disability, came crashing together. And philosophy had always been like this very abstract interest of mine, suddenly it was much more tangible. So, there's certainly a very fraught relationship, I guess, between mental health and philosophy and psychiatry.

But one theme that I kept running into is this problem of classification, right? Mental health and disability are, by their nature, very difficult to define. And yet there always are definitions imposed on them, whether it's actuarial forms, doctors' visits, just day-to-day encounters. And so, for me, an ethical philosophy of disability has to kind of, strike this balance between how do we find the language to articulate while also acknowledging the ways in which definitions are hard to pin down and end up being fuzzy and messy. And so that both inspired my thesis, which had more to do with how algorithms discriminate against people with disabilities, but also led me to this project and the philosophy of psychiatry more broadly.

Mary Alice Yeskey

Your paper looks at areas where a psychiatric diagnosis is vague or not concretely quantifiable. What sparked your interest in that specifically, and why is that important?

Nicholas Tilmes

Well, I wanted to take a different approach to thinking about the difficulty of defining diagnoses. There are long-running debates in the philosophy of psychiatry about what exactly a disorder is. And, you know, we can see this in different psychiatric manuals. There are too many disagreements there for me to chronicle, but the DSM, which is sort of the OG manual, identifies sets of symptoms that tend to appear together but doesn't really consider their underlying mechanisms since it's mostly about dating diagnosis.

And then you have other manuals which start from etiology or like, their underlying mechanisms because it thinks about disorders as these, kind of discrete, natural entities. And so, the question I was interested in is maybe we can move some of these debates forward by thinking about, you know, not just what conditions are, but, you know, what are the borders of these conditions as we deal with the fuzzy cases sort of at the margins. And in these borderline cases, it's vague or it's indeterminate whether it's appropriate to render a diagnosis. You know, so in more practical terms, you know, finding dementia requires things like modest cognitive decline of, you know, so many standard deviations or some degree of impairment in your ability to live independently. How do we quantify those things? Is there some number of memories lost, some number of daily tasks you can't do? How do we draw the line and why shouldn't we draw it somewhere else?

And it turns out those questions end up being really important. Psychiatric diagnoses have a huge impact on people's lives, whether it's, you know, seeking health insurance, whether you're trying to get disability assistance, finding a job, et cetera. And we have to find a kind of Goldilocks solution because extending diagnoses too hastily can deprive people of their autonomy or certain legal rights. And on the other hand, being too stringent diagnoses means that people aren't getting the medication that they are seeking out. So, stakes can be pretty high. And you know, I guess at the same time, and I suppose we'll get into this, different ways of understanding vagueness implicates both psychiatric practice, you know, what kind of manuals we use, what kind of research we pursue, and also, you know, how we think about the philosophy of psychiatry, you know, how do we understand disorders?

Mary Alice Yeskey

One of the first things you talk about in your paper is something called the Sorites Paradox, which is kind of a really great way to think about these questions that you're asking. Can you, for those folks that might not know what that is, can you explain what that is and how that's a helpful thing to think about with, with these, with these questions?

Nicholas Tilmes

Definitely. So the Sorites Paradox comes from "soros", which is the Greek word for heap. And it is exactly as ancient as it sounds, coming from way back in, I think the third or fourth century BCE. So classically, the paradox has three steps. First, one grain is not a heap. That seems true. Second, if any number of grains is not a heap, then adding one extra grain will not make it a heap. It also seems pretty plausible. Therefore, a million grains does not make a heap. And you know, this is where things start to fall apart. And this points to kind of a broader difficulty of finding the limits of concepts like what is a heap? You know, we can tell the clear cases on either end—one grain, two grains, three grains—and also a million grains, but at some point in the middle, things change, but we can't really agree if you ask 100,000 people, you know, where the line is, you're not going to get necessarily a clear answer.

So, I don't think most of us go about counting grains one by one to see if they turn into heaps. But in a much rougher sense, we go about making judgments about vagueness all the time in our daily lives. You know, how many inches do you have to grow to be tall? How many hairs do you have to lose to be balding, et cetera. And you know, these discussions about the Sorites Paradox are often confined to concepts like bald or tall where, you know, you can fudge the math a bit, the stakes are not very high.

Mary Alice Yeskey

Not life or death. Not life or death.

Nicholas Tilmes

Yeah. But you know, for things like diagnosis, there seems more important that we have a more robust approach to drawing the line.

Mary Alice Yeskey

Absolutely. Absolutely. So, you argue in your paper that there are three prominent accounts of vagueness: semantic, epistemic, and ontic. For those who might not be readily familiar with those terms, can you kind of explain what those categories are and what they mean?

Nicholas Tilmes

100%. So, there are roughly three ways of thinking about vagueness and also why it's so difficult to dispel. So, big picture, semantic theories say that vagueness stems from how we describe the world, from our language use and disagreements about it. Epistemic theories say that vagueness is due to what we don't know about the world, a certain kind of ignorance or lack of knowledge. And then ontic accounts say that vagueness just is how the world is. It's the state of the world itself. It's just something we have to deal with, like it or not.

So, to break that down a bit, a semantic account, which I think I'm most sympathetic to, says that uncertainty about the borders of disorders emerges when different people and different communities disagree about how to apply a diagnosis. And these small variations in how we use language mean that we're applying these terms in different ways. And so, we can think about—for I guess a different context—we can imagine NBA players might apply the term tall much more stringently than you and I do.

Mary Alice Yeskey

Right, right.

Nicholas Tilmes

And similarly, different communities might have their own explanations, like how much functioning is necessary to render a diagnosis. For instance, before the Industrial Revolution and the hourly work week as we know it today, there were much different demands on productivity, on communal living. And so there might be a very, even if we imported kind of modern diagnostic standards, there might be a very different way of drawing the line. And because it's indeterminate how exactly we should apply these terms, you know, it's correct on some communities' interpretations, but not on others. That's where vagueness comes in. So, the semantic account suggests that, in theory, we could settle upon a sharp cutoff point. We could identify a moment where here a diagnosis is correct, here it isn't. But before we get to that point, different communities have to kind of reach consensus about where and how to apply these terms. So, we could learn everything about behavior in the brain, but as long as there's that disagreement in language, we're not going to make that final step.

And then epistemic theories take a very different approach. So, it says that there, in fact, already is the sharp cutoff as to where diagnosis is.

Mary Alice Yeskey

It does exist, yeah.

Nicholas Tilmes

Yeah. It's out there in the world, but we don't know where it is.

Mary Alice Yeskey

We don't know where it is, okay.

Nicholas Tilmes

And so, we're ignorant in these borderline cases because of something called the margin for error, where if things have been just a little bit different where or how we applied that term would be different as well. So, you know, if people used bald or tall differently, what exactly those terms would mean would change just a little bit, and the same thing on an epistemic account is true about psychiatric diagnoses. And so, this view suggests that it would just be lucky guessing if we happen to discover the correct diagnosis, but we could have easily gotten it wrong, so we don't have genuine knowledge of where it is. And so, clinicians can identify clear cases where the symptoms are really distinct, but when we get to that margin of error, that's where vagueness emerges.

And so, this suggests that maybe as we learn more about behavior in the brain, those margins of error will shrink, and this also suggests that disorders are not just kind of linguistic conventions or in fact that they have much at all to do with what we think about them or rather that they in fact exist, that they're these sharp, natural kind. And then the last theory, also very different from the other two, is an ontic approach, and it says that there is no fact of the matter about borderline cases at all. And this is a somewhat controversial approach because most arguments for it often get assailed. I think it's maybe compatible with the semantic approach, but basically what it says is that if we know all there was to know about the brain and if our language was perfectly precise, there might be some kernel of vagueness that remained, and that would just be vagueness in the world itself. And because the world had left it unsettled whether a diagnosis is appropriate, and you know, whatever we did to identify clear cases, we couldn't properly distinguish some of these last few instances.

And in a way, ontic vagueness suggests that the kind of fuzziness that is all over psychiatry is all over a lot of our everyday concepts, is just the natural and inevitable feature of the world. And so, some of these might be compatible. We might reduce other kinds of vagueness a bit, and then there might be some left. But this basically says that we'll never get all the way there.

Mary Alice Yeskey

Right. That it's not perfect. I'm going to ask you a question that I didn't list in my questions that I wanted to ask you that I just thought of because I'm curious now, so I don't want to throw you off.

Nicholas Tilmes

No, no. Go ahead.

Mary Alice Yeskey

And maybe you can just give me some historical context because what I'm thinking when you're describing all of this is, isn't this kind of where the term spectrum comes from? So, like when there's a diagnosis of somebody on a spectrum of this, was that a result of this vagueness? Is that a result of people just understanding more? Can that spectrum terminology be applied to other things? Could you say, you know, Alzheimer's spectrum or anxiety spectrum or bipolar spectrum? Could you just apply that to everything to kind of help with the vagueness or does that have more ramifications with that specific types of diagnoses?

Nicholas Tilmes

Yeah, that's definitely a very interesting question. I mean, I think there are sort of two halves to that. And the first side is that there definitely has been a shift towards recognizing that there is a lot of, that a lot

of psychiatry is dimensional and that it's on a spectrum. And this is true both in terms of symptoms, you know, degrees to which they're expressed and also in terms of diagnoses themselves, that it might not be like a discrete category that we can neatly label as a disorder, but that there's a long spectrum from what we consider ordinary behavior to what we may issue a diagnosis for.

And this especially pops up with personality disorders, which are very controversial as these independently existing categories. And as far as vagueness goes, I think certainly, especially on like, an ontic account, the idea that this is all dimensional seems very much in line. So, I think that, you know, that's something that pervades throughout. But on the other hand, even like, a dimensional approach still has issues with vagueness.

Mary Alice Yeskey

Right. There's still ends. There's still ends to the spectrum. Yeah.

Nicholas Tilmes

Yeah. Because whether we have like, a single sharp cut off or two fuzzier cut-offs, then we have to ask like, OK, is there vagueness at either end of the threshold?

Mary Alice Yeskey

Right. Yeah, there's the—exactly. And therein lies the paradox, because there's got to be a—there's a point where it either is or it isn't, even if you soften the middle.

Nicholas Tilmes

Yeah. So, I think, yeah, it's one of those things where we have to figure out, like, which kinds of vagueness matter, you know, when do we—when is it something that should change the way we're making clinical decisions and when we wave our hands a little bit.

Mary Alice Yeskey

Yeah. So that's exactly kind of leading into my next question, which is how does understanding the nuance and the definitions and the arguments for vagueness, how does all of this benefit clinical practitioners and patients in their day to day practices and in how they're receiving care?

Nicholas Tilmes

Absolutely. So, I guess, big picture, a lot of the, I guess, concepts and themes that we've talked about can inform, you know, where we draw the line. Are we being too stringent or too hasty? And also, you know, what kinds of manuals should clinicians use? What kinds of research should they pursue? So, to make that a bit more specific for—I mean, I think some of these models don't provide much insight at all. Like, I think an epistemic account, you know, suggests that we should treat conditions as kind of discrete. I think this is really difficult to apply in practice. You know, it's hard to imagine that there is like a single cutoff point in reality and that we should just stumble upon it. You know, and even manuals that treat disorders, discrete natural kinds often take a more dimensional approach.

But I do think there's more to be gleaned in practice from like a semantic account, which says that, you know, dwelling on how different communities use language and use psychiatric terms can inform diagnoses going forward, you know. So, for instance, we might look at how certain ways of describing

symptoms get passed over more than others. And I think, you know, lots of people are familiar with the idea that, you know, it can be difficult to communicate your lived experience in a way that's amenable to getting a diagnosis, especially for, you know, I mean, certainly for invisible mental health issues and also for things like chronic pain. And at the same time, you know, we can think about, you know, what terms get applied disproportionately to certain communities and this shapes out historically.

So, for instance, schizophrenia when it was first developed was largely diagnosed in nonviolent white petty criminals, but the DSM changed in the 1960s and suddenly, it began to be diagnosed in Black people, especially who were visibly involved in civil rights activism at staggering rates.

Mary Alice Yeskey

Interesting. Not surprising, but interesting.

Nicholas Tilmes

Yeah. Historians have traced this to changes in the language of the diagnostic criteria. You know, the addition of like, terms about hostility and aggression that were then applied disproportionately to Black folks. And so, thinking about the ways in which language gets used and how different communities apply them can really inform how we understand these conditions going forward. And then, you know, I think there are also some insights we can draw from an ontic approach. You know, on the one hand, an ontic approach is a little bit of a dead end, I'll admit, because it says that, you know, there's a point at which we can't make things work.

And so, you know, we should try to reduce some of these other kinds of vagueness, we should learn about language, we should learn about the brain and behavior and people's lived experiences, but at a certain point, we can't go further. But that does also suggest that, you know, at a certain point, we should consider factors other than, you know, psychological knowledge or other than linguistic precision when we're deciding whether to diagnose, you know, given that getting a diagnosis has all these impacts on people's lives and their autonomy, you know, perhaps we should be considering other factors, we should be looking at more structural considerations when we're issuing a diagnosis. And so, you know, maybe we need to consider a broader scope of concerns.

Mary Alice Yeskey

So, what's next for you, research-wise? Are there any upcoming papers or studies that you'd like to share with us?

Nicholas Tilmes

Well, I have—so, I've just begun law school at NYU this fall.

Mary Alice Yeskey

Oh, congratulations.

Nicholas Tilmes

Thank you very much. So, my days have been somewhat consumed.

Mary Alice Yeskey

I bet.

Nicholas Tilmes

Yeah. Broadly, I hope to, you know, I hope to continue exploring some of the issues that drove me to write this paper, you know, classification and disability, but also extending some of my research on like algorithms and ableist biases. So, I am currently in the depths of exam prep, but right now I am working on a paper about AI and the First Amendment—

Mary Alice Yeskey

Oh, wow.

Nicholas Tilmes

—that draws together technology and law, but also, you know, philosophy of mind. So, there's been a lot of buzz about AI consciousness in recent years, which is at least, on my mind, very overhyped. And with that, there's been even some people calling to protect AI-generated speech as if it were human speech. And this seems like a pretty big problem as the natural language processing algorithms are, which can understand or at least mimic how you and I talk, are very biased and can generate pretty convincing misinformation. So, it seems like we should not be shielding that from regulation.

So, the argument goes, you know, the ways in which AI process information is different enough from human cognition, that algorithms can't be said to really understand the outputs they're generating, that they aren't forming political opinions or making judgments of the kind protected by the First Amendment. So, that's still a bit at the early stages.

Mary Alice Yeskey

When you said law school, I was like, oh, well, you've just gone, you know, you've just made a 90-degree turn, but you haven't. You just synthesized that perfectly for me. That's great. I love it.

Nicholas Tilmes

It's all somehow coming together.

Mary Alice Yeskey

Right. It always does somehow.

Nicholas Tilmes

Yeah. So, with any luck that, and then I have a paper about, you know, also misinformation, you know, a bit about cognitive science and philosophy of mind. So, why it's so persuasive, why it's so difficult to dislodge. Hopefully that'll be coming out sometime sooner.

Mary Alice Yeskey

But oh, I mean, I'm intrigued to read that. It's so—I'm so tickled, too, because the last guest on our podcast was a researcher who was talking about political propaganda online. And I just think it—from *Journal of Democracy*—and I just think it's so funny that we that, you know, these two very disparate papers and disciplines have so many ties together. That's what I love about—about academic scholarship is that you can—you can weave those connections, even if it seems like you can't when you start. By the end of the conversation, you can.

Nicholas Tilmes

Oh, absolutely. It's definitely really something very fascinating to be looking into, because, you know, if you look at all of the research that's existed before and all of the research since 2019—

Mary Alice Yeskey

Right.

Nicholas Tilmes

Worlds apart.

Mary Alice Yeskey

So interesting. Very cool. Thank you so much for your time today. This has been so interesting, and I can't wait to read those—those papers that you just discussed, and best of luck with law school.

Nicholas Tilmes

Oh, absolutely. Thank you so much for taking the time to speak with me and inviting me on.

Mary Alice Yeskey

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