

PAUL GAILEY

00:28.31 That was great. The first response will be from Teed Rockwell, who is Professor of Philosophy at Sonoma State University.

TEED ROCKWELL

00:28.41 I'm gonna use this lectern over here.

PAUL GAILEY

Please do.

TEED ROCKWELL

00:28.46 So, I enjoyed Dr. Thurman's inspired improvisation on his original paper and particularly because he did a lot of variations in the area of his paper which interested me the most, which was the relationship between the Western idea of science and the idea of Buddhism as a science.

00:29.05 Now, as Alan Wallace has pointed out, both the concepts of science and the concept of religion

are Western prototypes. Neither of which fit Buddhism very well. It's kind of suspended between both of those prototypes. I mean there are examples of Western science, which do resemble Buddhist practice in certain ways.

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Descartes's Cartesian meditations look an awful lot like Buddhist practices. They both involved careful, disciplined introspection, which eventually leads to truths which are not immediately obvious to common sense. Now, a lot of people think that Descartes says, oh, you can't be mistaken about what's going on in your mind. But that's actually not what Descartes said.

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He said you can't be mistaken if you have a clear and distinct idea of what's on in your mind and that takes a lot of practice to develop a clear and distinct idea, a clear and distinct awareness of your own mental states. That's why babies can't do calculus. Basically, even if we assume

that the truths of mathematics are directly given to us, it still takes mental discipline to have a clear and distinct awareness of those truths.

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However, that was a couple hundred years ago and modern, post-Newtonian science is highly critical of introspection, partly because of the really spectacular failure of introspection psychology of Wundt and Titchener on the early 20th century. So now, the main difference between Buddhist practice and modern physical science seems to be that the former relies almost exclusively on introspection and the latter forbids it.

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Now, we imagine the empirical science - several people in lab coats are all looking into the test tube and they're all seeing the same thing. But we can't have a bunch of meditators standing around looking at the same mental state. They're all looking at their own individual mental states.

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So, how can we get around this? You know, looks like an irreconcilable difference between this kind of practice and Western science. Well, some people think we ought to construct something that philosopher David Chalmers calls a first person science. And that Buddhist practices, maybe, could be a part of such a science.

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And then the other major contender is one that Dan Dennett calls heterophenomenology, which I think you know, for this purpose is probably just described as a third person science. And that basically means that you teach the reports, the textual reports that somebody makes of their mental states and any other aspect that's third person accessible to people about their mental states.

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It could be brain scans, it could be x-rays. Anything like that and that's gonna be the subject of your science, not the actual introspected states themselves. So that seems to

leave meditation out. Now, even if first person science is a coherent possibility, which I don't necessarily grant, it would not be compatible with Buddhist practice.

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If our mental states are completely undetectable by any sort of third person science, this would mean that they had no impact on our behavior whatsoever. They would be, to use a philosopher's technical term, epiphenomenal. And Chalmers is very upfront about that. He says that what he calls qualia are epiphenomenal.

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As Stephen Phillips pointed out in one of his papers that was on the site for this conference, Buddhists must believe that our mental states have an impact on our behavior. We meditate so that we can become more skillful, more compassionate, have more equanimity. Such qualities might be hard to define in strict scientific or quantitative terms, but they're certainly detectable.

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This is why teachers of meditation can tell whether their students are making progress even though they can't actually experience the students' mental states. Nevertheless, there are also important differences between Buddhist practice and third person science. Something like third person science may be necessary for Buddhist practice, but it's not sufficient.

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This is partly because science itself has different goals from Buddhist practice, even though its methods can be used to help Buddhist practice. What science can do is help generate textual reports about mental states and other kinds of artifacts, like those reports, that help us along the path of enlightenment. But the states of mind themselves, including the enlightened states, are in a certain sense outside of science's domain.

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We can acknowledge that the states of mind which are the goal of Buddhist practice are real, while also acknowledging that they are in their very nature not accessible to scientific study. But this does not require us to accept dualism. Really it doesn't. Bear with me here.

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Now let's suppose that an eminent surgeon has broken her leg in a skiing accident and she's sitting in a hospital bed, looking at a live x-ray projection of the fracture and she's discussing it with several of her colleagues who are all sitting around the bed. So she's giving verbal reports about where she feels the pain in her leg and she's making speculations about where the fracture might be.

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Now some of her colleagues are a little bit more skillful at reading x-rays and they point out to her that she's wrong. The fracture's actually elsewhere. And she's puzzled by this, so she calls in some colleagues from the neuroscience

department who scan her brain with their
cerebroscopes. This is 25th century neuroscience.

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And they discover that even within this thorough
knowledge anatomy, even though she had this
really thorough knowledge of anatomy she actually
misinterpreted her own physical experience and
they can say, here, this is why it happened. It's
right here in the brain and that's why she had
the misinterpretation.

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So the whole thing, you know, the appearance, the
reality of the experience - it's all available to
third person and, you know, to everybody in the
room. Not just the person with the broken leg.
Now let's go into the realm of a thought
experiment and posit that she's made complete
verbal reports of everything she's experienced.
And her colleagues have heard and understood them
all.

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And they've also scanned the x-ray and the cerebroscope and have thus learned everything going on inside her body that was responsible for her mental state that was not available through the verbal reports. Now, are the colleagues having the same experience as the person who actually broke her leg. No, because her leg hurts.

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The experience of hearing reports and looking at x-rays and cerebroscope read-outs is not the same as the experience of having your leg hurt. And more importantly, this difference is not being bridged by the addition of more reports and x-rays. The experience of hearing 500 reports about pain does not come one whit closer to being like feeling the pain anymore than only hearing 50 such reports. You're not even traveling in the right direction.

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So don't tell me, well in principle, we'll get there. Not if you're going in the wrong direction

you won't. Now, does this mean we have to accept a dualism between the mental and the physical? I don't think so. It just means that there's a difference between having a mental state and acquiring scientific knowledge about that state. And that's just the way it should be.

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What would be the point of having all those other doctors writhing around in pain next to the patient? The purpose of Western science is not to create a particular kind of subjective state. It's goal is to create a complex, socially-constructed artifact and that artifact serves a variety of purposes. That's why the archetype of the mad scientist alone in his lab is not an accurate portrayal of the way science actually works.

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A scientist whose work was not firmly embedded in a disciplinary matrix of some sort would be mad. Or at least a crackpot. And there are such people and you can find a lot of a lot easier these days

on the Web. But even though some of these crackpots are quite intelligent, the thing that stops them from being genuine scientists is their unwillingness to play a part in the social construction of this artifact we call science.

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This artifact is made of many things - laboratories, which in turn make possible scientific papers, which become the basis for abstract concepts, which are communicated by a combination of verbal reports and mathematical equations. The one thing that will not be part of that artifact are the biological states that enable an individual human to make use of that artifact.

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A knowledge artifact has to refer to things at a reasonably high level of generality in order to be useful to large numbers of people. There's simply no market for a science of the particular mental states of Ned or Georges. Ned Block once talked, one time in a paper - I don't know if he

ever actually wrote this up - but about Ned Now psychology. You know, so the idea that you could have a psychology of Ned.

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Yeah, you could maybe do that, but there wouldn't be much market for that. Maybe Ned would be interested. But there's never gonna be- there may be a market for it, but there's never gonna be a science that completely comprehends exactly what I am feeling right now because that idea doesn't make any sense.

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So this may be like a criticism of your idea, Ned, of subjective concepts. I don't think that idea makes any sense. What knowledge artifacts do is relate what we are experiencing now to things that we have experienced or will experience. And in order for that process to take place, there's gotta be two separate elements.

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There's the something particular that's going on right now and then there's this abstract concept

that relates it to all the other stuff. And that's why there'd never be a first person science any more than there could be a science of this lectern. That doesn't- That idea just doesn't make any sense. The knowledge artifact thus presupposes that there is a distinction between itself and what is being experienced right now, just as a hammer presupposes the existence of a nail.

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Together, they perform this function of making science possible. And this, I believe, is all that there is to the explanatory gap that worries Chalmers so much. It's the old philosophical problem of the relationship between universals and particulars reappearing in the context of philosophy of mind debates.

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Knowledge of particulars is only acquired by applying universals to them and our private experience is the most fundamental particular of all. The gap between universal and particular

will never be closed because it's what makes possible- what makes knowledge both possible and needed. Now those who construct the knowledge artifact we call science and pay others to construct it for them get many benefits from them.

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We get useful machinery, we get cures for diseases, and we also get a very hard to classify entity called knowledge. But knowledge is not a substance we possess, like gold. It's not an activity, like dancing or eating. Nevertheless, if you spend enough time interacting with some aspect of this artifact we call science, you'll become knowledgeable. But what does that mean, exactly?

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Now being knowledgeable, or being wise, possessing wisdom - I want to hook this all up here - unlike science itself is not a public artifact. It's something completely subjective, but in a very unmythical way. It's subjective in

that it's the private property of the person who possesses the skill the way one's hands or brains are private property.

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It's as Heidegger says, in each case, mine. It's a character trait, a kind of skill, a knowing how, rather than a knowing that. This character trait can be acquired by studying science, among other ways. That is one of the reasons science is so highly valued. If you study with a physicist and learn how to do physics equations and physics experiments, you'll become knowledgeable about physics.

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But your ability to do physics is not physics itself. Some people have thought so. It's often assumed that the public artifact called physics is a set of publicly shared facts and they can be emptied into a student's head one at a time or they're a stamp that can be impressed upon our brains without altering itself. And this assumption makes it possible to ignore the

difference between the public artifact called science and my private knowledge of science.

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But possessing skills and abilities is not the same thing as being able to recite facts to a teacher. The facts are public in a very important sense and in that same sense, the abilities and skills are private. The latter are private because they require the ability to recognize certain perceptual mental states and to know how to respond appropriately with those perceptual mental states.

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Now philosophers often point out that no one can explain to a blind person exactly what a color looks like. But this is not just a single, annoying counterexample of the idea that all knowledge is public. Every skillful activity requires the ability to make complex, unverbilizable sensory distinctions that are unique to that skill and then make the appropriate response. Sometimes, the required

response is a verbal report. As when an interior decorator can identify and sort scarlet and crimson where the rest of us can only see red.

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Sometimes, the required response is a complex piece of motor behavior, such as a parry in response to a sword thrust or a melodic solo in response to a chord change. But in each of these cases, there is no way that the public artifact called science can fully capture what needs to be known. The ability to respond to sensory experience is, as Michael Polanyi once said, a form of tacit knowing. Something we know, but cannot tell.

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These sensory experiences are thus in many ways like Chalmers's qualia, but I think they're more accurately described by Owen Flanagan's concept of qualia. They're not epiphenomenal and thus we don't need a first person science to study them. They have real impact on the behavior of the

people who possess them and we can see that impact in the third person, objective world.

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As St. Paul said, by their fruits you shall know them. But being able to detect that other people have those qualia is not the same thing as possessing those qualia yourself. I can tell from watching Michael Jordan play basketball that he has an extraordinary awareness of visual and kinesthetic qualia, but that does not mean that I am aware of those qualia myself.

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That is one reason why he can play basketball and I can't. Being able to do science also requires the ability to make complex qualitative distinctions. Skilled laboratory technicians and scientists can see patterns in oscilloscopes and cloud chambers that the rest of us cannot see. And their ability to have these kind of perceptions provides the foundation for all scientific research in some sense of foundation.

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There was one fairly dramatic case recently that showed how deeply the objective patterns of science are dependent on the subjective patterns of scientific practitioners. A court ruled recently that fingerprints were not acceptable scientific evidence because the only criteria that determined whether two fingerprints were identical was the judgment of an expert or experts.

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In other words, if enough fingerprint experts said, yep, that's Jones's fingerprint alright, it was declared to be Jones's fingerprint. There was no other test that could check this expert decision. Consequently, the judge said that this criterion was totally subjective and therefore not scientific. Now the judge's ruling shows that our common sense understanding of science often underestimates its dependence on purely subjective experiences.

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I think we'd have to say that, you know, even if this is true that this is the only way you could tell two fingerprints apart, this doesn't mean that these guys were just being completely arbitrary. I mean, we know what it's like to have these direct perceptions, just as you and I can tell what red looks like, they could have that expert ability.

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And I think probably they do have that expert ability to be able to see that this fingerprint is like that fingerprint, even though the rest of us can't and even if they can't explain to anybody else how they do it. These subjective experiences that support pattern recognition skills can be studied using hard-core scientific methods like brain scans or whatever, but there's still a difference between knowing that the human brain needs to go through certain processes to perform skillfully and knowing how to actually make your brain go through those processes.

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That's why there is a difference between learning these facts and developing the necessary skills. In other professions, more conscious attention is paid to developing the states of mind necessary to make these subtle distinctions in perceptual awareness at exactly the right time. Athletic coaches and music teachers, for example, will often speak in language which seems offensively mystical to devout materialists. You know, use the force - this kind of thing.

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Thanks to the multicultural communication of the last few years, almost every skilled activity has a coaching book called "The Zen of X" or "The Inner Game of Y." And these books are inspired by the teachings of the great meditation masters of the Asian traditions. I'm hearing from Georges over here - apparently not by the book so much - but I think they were probably inspired by the, you know, the one on one verbal communications that were done to make. It's not surprising these things wouldn't be written down because they

would need to be adjusted to the individual so much more.

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Now the goal of all of these kind of reports is fundamentally different from the science tech book. They're not designed to transmit information or facts, but to teach you how to recognize and respond to inner states which could never be fully captured by their texts. This text can only point to private states of consciousness and must rely on metaphorical language to evoke and classify experiences that are strictly speaking, indescribable.

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Consequently, even the very best textual guides to cultivating enlightened states of consciousness cannot be evaluated with the standard used to judge physics experiments or even logical debates. A biological knowledge of one's subjective states is not necessary for the development of the skills that rely on those subjective states.

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That's why Buddhist monks can reach extraordinary states of consciousness without knowing any neuroscience and why Michael Jordan can develop extraordinary muscular skills without studying anatomy. However, that doesn't mean that scientific knowledge about subjective states couldn't be helpful for skill acquisition, including the skills of cultivating enlightened states of consciousness.

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Now, Evan Thompson talked about some of those earlier and talked about, you know, how he's been working with people that combine cognitive science, phenomenological philosophy and contemplative mental training. Joe Lazio (ph) talks about how meditational practice can be related to the Western practices of psychiatry and psychotherapy.

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But in order for this interaction to work, it's important to recognize the differences between

changing consciousness and increasing scientific knowledge. Increasing scientific knowledge is definitely a worthwhile activity. Building this artifact is a worthwhile activity. I'm sure it benefits sentient beings. But appropriating and applying that third person knowledge so that it transforms your private experience in the here and now is perhaps that process that transforms knowledge into wisdom. Thank you.

APPLAUSE

PAUL GAILEY

00:46.51

The next presentation will be by Gary Tubb, a professor of religion here at Columbia.

GARY TUBB

00:47.08

Thank you. I'm always happy to have Bob Thurman as a target. But because, as you've heard, he's currently the chair of my department and salary reviews might be coming up, I'd like to add what a great honor it is to have the opportunity to