

Michael Pollan
Michael Debrief

Below in black is a word-for-word transcript of the March 4 debrief interview with Michael that is available on YouTube at <https://youtu.be/rdGVJZPLj2M>. In brown are conversations about the Descriptive Experience Sampling process that took place during the interview. In green are comments about and explanations of the Descriptive Experience Sampling process inserted after the interview. If you have corrections, suggestions, or questions, please post them as YouTube comments.

RTH = Russ Hurlburt

Michael: Michael Pollan

0:00 Michael: Two things. Got it. Um, first of all, I'm just very grateful for this opportunity. It's been really fascinating. Um, I've learned a lot. Um,

0:11 RTH: Me, me too. So I'm right on equal, equal footing.

0:14 Michael: Good. I know I was a a I've, I've been a somewhat frustrating, uh, volunteer.

0:20 RTH: Well, y'know, I think I, I think in a way that's true. And, and in a way that's sort of the most important part for me to figure out. Well, what's, what's the deal with that? And, uh,

0:32 Michael: Yeah. Well, we can talk about it. So I wanna do a kind of debrief on the sessions, but I also have some questions I need journalistically, your, your, I mean, fact, simple-fact things, and a couple other more speculative things. Which would you like to do first?

0:46 RTH: Whatever turns you on, this is your party. I'm the,

QUESTIONS ABOUT RTH'S HISTORY WITH SAMPLING

0:46 Russ comments: The interview is discursive, wandering from topic to topic with no set plan. I inserted headings such as "QUESTIONS ABOUT..." after the fact on the possibility that it will make finding particular questions easier.

0:49 Michael: Okay. Okay. Good. Um, but I mean, if you want to take the debrief section and use it as part of what you're posting, I don't have a problem with that. [RTH: Okay.] But this section would be weird to include. Um, so going back to the, your origin story about the, the beeper and the method. Um, you, y'know, you said you had this idea on your way to graduate school. Um, I don't think you told me where you went. Um, I think you said it was South Dakota.

1:15 RTH: The University of South Dakota is where my PhD is from. Yeah.

1:18 Michael: Okay. University of South Dakota.

1:22 RTH: So I, I had had the *interest* in randomly sampling thoughts for quite some time before that. [Michael: Before that.] But that was where I figured out how to do it.

1:31 Michael: Uh-huh. Um, and you mentioned too that you had training as an engineer. Was that or work as an engineer before that, that both equipped you to do the beeper? Both.

1:42 RTH: I, I have an undergraduate degree in engineering, aeronautical engineering, and a master's degree in fluid dynamics, mechanical engineering. And, uh, worked as an engineer, computer scientist, mathematician, whatever, for a couple years

1:58 Michael: Before going to graduate school.

2:00 RTH: Before going to graduate school for 3, 3, 3 years. And then I went into the army, and then I was back in for another year. So four, four years as an engineer.

2:08 Michael: Okay. So you worked as an engineer before and after the army?

2:11 RTH: Yes.

2:12 Michael: Okay, great. Um, so I was thinking about, you said, y'know, personal electronic devices weren't really a thing yet. And I'm trying to remember, when did pagers come in? That's the first one I remember.

2:27 RTH: The, the first pager was I think the Motorola Pageboy, and I think that's 1974.

2:40 Michael: Okay.

2:42 RTH: I think, I think, uh, don't trust my memory about that.

2:46 Michael: Yeah, I can check that.

2:48 RTH: I can check. But I think, I think it's in the vicinity of, of 1974 or 5 or something like that. And it rolled out sort of slowly. So it, where the actual beginning was is might, you might find, might find a little bit hard to

3:01 Michael: Yeah, okay. Put it. But in 1973, there weren't other devices like this.

3:05 RTH: That's correct.

3:06 Michael: Okay. Um, I'm curious if, uh, there are other people doing sampling, right? I haven't like sampled the universe of people. Um, I know there are people who use iPhones for this, and we discussed why that was limited. Back when you were doing this, were there other people trying to do it? Or without the technology, they didn't, it didn't occur to them you could do it?

- 3:34 RTH: So the answer to the second que the first question first question first. There are a lot of people who are using beepers nowadays, one way or the other, either nowadays it's mostly iPhones, but, but you can use Palm Pilots or handheld computers or, or, or whatever. And, and so that it is now, I would say mainstream psychology. And, and when I started, there wasn't anybody else. Uh, within, uh, a few months or, or six months or something like that, Mihaly Csikszentmihalyi, the flow guy, [Michael: Yeah.] started in, in his, in his,
- 4:12 Michael: I've never heard anyone pronounce his name. It's challenging.
- 4:16 RTH: I think that's, I think that's, I think that's the deal. It's.. But he started, he, he started using, uh, pagers and that's why, that's why I think the date is gonna be right around 1974, because he started using, he was, he was an early user of pagers. So I think what happened for him is he, he saw the pager as a way of doing this kind of stuff. And it, and it was very close, I think six months after, maybe I, I, I built my first beeper.
- 4:46 Michael: Uh-huh. Did you think about using pagers or, or did, uh, not give you any value added?
- 4:53 RTH: Oh, by the time pagers arrived, I had already built beepers. So I was, so there wasn't any reason for me to use the pager.
- 4:59 Michael: Right.
- 5:00 RTH: The, I so the answer to that question, did I think about an answer is *no*. [Michael: Yeah.] There, there was, there's another group other than Mihaly's group: Eric Klinger,
- 5:12 Michael: Um, who you, you cite in some of your papers.
- 5:14 RTH: Yep. He, he, uh, and the University of Minnesota, Morris, I think starting at around 7, 1974 or 5-ish, something like that.

QUESTIONS ABOUT THE CURRENT STATUS AND CRITIQUES OF DES

- 5:26 Michael: And is there anyone using your method now, besides you? I mean, have any of your graduate students gone on to make this part of their work? Is there a community of people doing this? Or is it pretty much you?
- 5:39 RTH: It's pretty much me. There is not a community. The, my graduate students would say they use the principles of descriptive experience... (there are, my, my graduate students are mostly clinical students), and they would mostly say their, that DES, their DES experience informs every minute of their, of their, uh, clinical interviewing. But they're not doing, nobody is really doing DES kind of research.
- 6:08 Michael: So what about the larger, like, sampling community? Are you guys a community? Or not really? Are there conventions or meetings or anything like that around? No. No.

- 6:21 RTH: I would, I would say I'm a, there might very well be a community of, of people, well, well, one, one of the software people, I think is trying to make a community of people who are doing sampling. Uh, I've been sort of, I've been as critical of the sampling community as I am of questionnaires in general, because the sampling community, with the exception of me and the people who work with me, basically are giving questionnaires at, at random samples. And, and...
- 6:51 Michael: So in other words, you get a call on your iPhone and then you, and then you're asked a series of questions [RTH: Exactly.] when you pick up?
- 6:51 Russ comments: I misunderstood this question when it was asked. On the tape, Michael is pretty clearly referring to a series of voiced questions delivered over the phone, but what more typically happens is that the iPhone launches an app that delivers the questions in printed form with electronically recorded (radio buttons, sliders, etc.) answers.
- 6:57 RTH: Exactly. And I don't trust those questions when they're delivered by paper and pencil. And I don't trust those questions when they're delivered electronically. And I don't trust those questions when they're delivered in intermittently or randomly or whatever.
- 7:12 Michael: And why is that? What's, what do you think is the limitations of that method? I mean, that you, we discussed the beep and the, the sudden rise and the fact that there's no fumbling to turn it off or anything, but are there other, uh, aspects of that?
- 7:29 RTH: Well, I, I think your, your sampling gives a, uh, an example of why that would be difficult. So, so if you, if you think back to what your first day re, responses were like by comparison to your fifth day responses, I think you, I / would say they're quite a bit different.
- 7:49 Michael: Yeah. I would say so, too.
- 7:49 RTH: And the reason that they're different is that we spent four hours in between batting, batting each other around, bashing each other around (however you wanna say that), trying to figure out what we're saying to each other until we understood what we were (more or less—we still haven't figured it out entirely in a lot of ways). But, but, uh, um, and that, that, that I call the iterative process, I think is, is *fundamentally* important. And the samplers don't do that. Just like any other questionnaires don't do that. [Michael: They're standard questions.] They give you a questionnaire; they assume that you know, what, what the words mean. And I don't, I just don't think that's true. [Michael: Yeah.]
- 8:28 I think that's, uh, there are some, there are some questions that you can answer that you can ask, I think, and get a good answer. So, so if you ask for example, how many people are with you right now, I think you can probably answer that on a questionnaire. That's probably fairly easy to define. Although even that, y'know, it's got probably enough to really screw up the mean, [inaudible]

- 8:50 Michael: Yeah. But I mean, I realize if you had asked me if a questionnaire had asked me was, was that, uh, *did that take the form of inner speech*? I probably would've said "yes" in the first session without really considering what that means until you say, "well, what were the words?"
- 9:06 RTH: Right. And, and it's not just a matter of saying "what's in the words," because if I had said on the first sampling day "what's in the words," you would've *told me* what was in the words, but then
- 9:15 Michael: Right. But they would've been recollected, they would've been translated.
- 9:16 RTH: Right. And they wouldn't, and there wouldn't, and there wouldn't have been words. [Michael: Right.] And so the, the data that I find when I do that kind of study is that, well, most questionnaires, including sampling-based questionnaires, which ask about the frequency of inner speech, tell you that the frequency of inner speech is like 80% or 90%, or some, some would say 100%. And I find the frequency of inner speech is 20%, or, y'know, [Michael: Yeah.] there's a *long way* from 20% to 80%.
- 9:43 Michael: Yeah. Um, a question about those percentages that I was grappling with reading through some of your stuff. When you say that it's 20, 25% inner speech, are you talking percent of samples or percent of volunteers?
- 9:58 RTH: Percent of samples. [Michael: Okay.] So *you* would end up saying, y'know, in my, and, and I don't, first off, I don't have really good, I don't keep really good data about that, for better or for worse. But, but there are the range of people, the range of percentages within people for inner speech goes from zero to a hundred percent. That there are some people who have almost [inaudible]
- 10:21 Michael: In one individual?
- 10:23 RTH: No, across individuals. [Michael: Okay.]has So one individual have 0%, you can sample 'em for forever, and you'll, and you'll never find inner speech. And somebody else you can sample, and every, every beep will have inner speech. When you take all the samples from all the people, put 'em into the pot, you would find sort of 20-ish or 30-ish or whatever percentage of people that have something that we would agree sounds sort of like inner speech.
- 10:23 Russ comments: RTH misspeaks here. He should have said "20-ish or 30-ish or whatever percentage of people samples that have something that we would agree sounds sort of like inner speech."
- 10:47 [RTH continues] But, but I don't, I'm not particularly careful about the percentages *because* my samples are not random, my people are not random, and they're all mostly of European descent and [Michael: Right.] and, and there's a, it would be totally interesting to do cross-cultural studies about, y'know, do Chinese people speak inner innerly speak at the same rate as English speakers?

- 11:14 Michael: And that kind of work hasn't been done. [RTH: No.] Or not according to your method anyway.
- 11:20 RTH: Not according to my method and not, and not also according to a method that I would trust. Let's put it that way. [Michael: Right.] And I've got pretty high *standards* about that. But, and, [laughs] and you could say, "well, the only method that you would trust is your own method." And that is a little bit too, too severe, I think. [Michael: Yeah.] But I, but I think you gotta do *something* that's *at least* as good as my method before you get to the place where I would trust what the, what the results are. And I, I'd be *delighted* if you could come along, or somebody would come along, and say, well, here's a way, here's a way to do this better than your doing, doing it. Yeah. But I'm *not* particularly delighted when somebody comes along and says, "well, here's an *easy* way. And I don't, it doesn't, it doesn't really give you good results, but it's *easy*!" which I think is sort of what science does.
- 12:03 Michael: How do we get from 20% of only 20% of samples are, uh, y'know, real inner speech to, can we draw a conclusion that some percentage of the population, more or less, but less than 80, uh, you, y'know, has, is predominantly inner speech. I mean, I guess, cuz as you said, some people might have it sometimes and not other times.
- 12:30 RTH: Yeah. I don't, I don't think we can do that. I, I, I think with the data that we've got now. And that, that's a personality question, what I call a personality question. And to answer that question, you would *need* big number of samples, big number of *people*. [Michael: Yes.] randomly selected from a wide variety of populations. And, and y'know, if, if, you would, you'd need a lot of skilled DES researchers doing that. And, and they're, and they don't exist. And therefore, I don't know the answer to those questions.

HAVE YOU SAMPLED YOURSELF?

- 13:01 Michael: Right, right. Um, I'm curious if you've sampled your family: your wife, your kids, do you have kids?
- 13:10 RTH: I have a kid. And and the answer to that is no. The
- 13:15 Michael: And your wife?
- 13:16 RTH: No, not my wife, either. See, they think I, I think they think I should, I should keep my scientific life separate from my personal life.
- 13:28 Michael: [laughs] Don't pry. Um, but you *did* sample yourself. There was one of the articles I read said, I, I think way back in 2007, um, you sampled yourself. Tell me about that experience. What was it like being on the other side?
- 13:44 RTH: Well, the, so the, the, so lemme give you the, the background of that. So, so when I, when I designed the beeper, when I built the beeper in 1973, I was, uh, trained in a, I was, uh, trained as a behaviorist, basically. And so I gave the kinds of questionnaires that people are now calling ESM or EMA or whatever, that, that was

what I was doing back at that, at that time. And by the time I had done that for a couple of years, I had come to the conclusion that I didn't know what somebody meant with a 7 on a Likert scale. And, uh, and so that wasn't good enough, but I didn't know what else to do. And so I started thinking about what, well, what do you do with a beeper? The beeper seemed like a good idea. Random sampling seemed like a good idea.

14:30 Questionnaires didn't seem like a good idea. So what did that leave? So I, I read a wide variety of range, of stuff from Buddhism to phenomenology to, to whatever. And in that process for a year, I wore the beeper myself for, from when I got up in the morning, until I went to sleep at night for a, a year. [[Michael: Wow! I can't imagine doing that.] Which was the year, the year 1976 and 7. It was the first year that I came to UNLV, actually, I came to UNLV with a beeper in my ear, basically, and trying to figure out what the, what, what to do about that.

15:08 And, and out of that, out out of that, wearing the beeper for a year, trying to figure it out, reading, talking to people, whatever came the sort of the basics of descriptive experience sampling (it's evolved somewhat after that), but the, but the basic of it was, well, you just have to ask people and you have to be careful about it. And that the core of that came outta that year. And out of that came the conviction that I should not any longer pay attention to my own experience. That, that that's a chapter that I should close. Because, because the, the experience that I had, so I dunno what you've read about my army experience, but in my army experience, I, I was reading, reading a lot of what all what psychology said. So I'd read, I'd read basically the entire psychology literature that existed, the original sources on the psychology literature as it existed in 1972. And, and almost without exception, people would, would, in those books, would say something like, at the beginning of the book, "I'm gonna tell you what's, what people are really like." And then when I got to the end of the book, I would say, "well, they're not telling me what people are really like, they're telling me about some theory about it." And that was disappointing to me. And, and, and the theory is, and the, and the theories all seemed to come from actually prior, prior knowledge. People, people had some, what I came later to call a presupposition about the way the world was, or self-theory about the way the world was, and then created a theory that validated that self-theory.

16:53 Michael: So was that theory based on their own experience? Or reading...

16:54 RTH: That's what that's what I think. Yeah. It was, it was based on their based loosely on their own experience, and by *loosely* and *their own experience* I mean, whatever seemed to them to be important. And so I didn't wanna fall into that trap because I had, I, I thought that was, that was a, i I had a lot of experience, un, unpleasant experience watching other people fall into that trap. And so what I said was, what I said to *myself* basically was like, "so you got a, you got a method. You figure, you should figure out what people are like. You should ask about a beeper, but you *shouldn't*, you should work to *not infect that* with your own experience, which means, among many, among many other things, you should not be interested in your own experience anymore. So you should wall that off (bracket, bracket your own experience up). And so I resolved basically after having worn a beeper for a year not to do it again.

- 17:52 And then I let my guard down when I, I had a lab of seven students and they ganged up on me and said, “well, y’know, you made me wear the beeper and you actually wear the beeper too.” So, so I wore it
- 18:02 Michael: This is the 2007 experiment.
- 18:05 RTH: I’m guessing it was 2007, but was around something around. But it was, it was, it was difficult for me because, y’know, I, my I’d had a lot of experience doing this kinda stuff by that time. It was sort of hard to set that stuff aside. And so I, I think I wore it for one day and then let the students inter interview *me*. And, uh, and my recollection is that it, that I had unsymbolized thinking and sensory awareness, but, but I’m not even really sure about that. And, but *mostly* I’ve cultivated not really caring about what my own experience is. It’s [Michael: Mm-Hmm.], it’s just, it’s just too easy to fall into the trap of saying, “well, I want you to be like me,” or “I want you to *not* to be like me.” Or, and if I, if I sort of studiously try not to be interested in that. And I, and I, y’know, think over the years, well, I’ve sort of taken that on board and I’m not that particularly interested in my own experience.
- 19:08 Michael: Um, the, in the account I read you, you had said that you, and I think it was written back then, uh, soon after that, um, that you were surprised that there was as much unsymbolized thinking, which it seemed to me would confirm you in your desire to bracket your own, your own experience, which is just as subject to misunderstanding as anybody else’s.
- 19:35 RTH: I think if I understood that question correctly, uh, that I agree with you about that.
- 19:39 Michael: Mm hmm. Yeah. Um, what form is your data in? You’ve got like almost 50 years of data. Is it in a form that anyone else can use it? I mean, I, I mean, I’ve read a lot of articles and I’ve read a chunk of the book and I see you use it in, in articles in various ways. Is it open to other people if they want to?
- 20:04 RTH: That’s a, that’s a good question. And, uh, part of my own self-criticism is that I *haven’t* been very good about that. So people very often ask me, well, you, y’know, like, well in all of your studies, how many people are engaged in inner speaking? And I don’t, I don’t have a good way of doing that. So I’ve, I’ve *never*, I dunno whether this is a personal failing of mine or whether it’s really been smart, one of the two (or both, maybe, I dunno). The, the, but I haven’t un until, until about two years ago, I haven’t really archived much. I’ve tried to build, I tried to build a system where I *did* archive it, and it, and I think actually I have a system, well, where I archive things for a while, and I got a lot of video stored away somewhere. But it’s not very, well, it’s not *at all* well organized until this, the, the batch that I’m putting out on the web now, that, of which they’re like eight out eight. Uh, so this is, I’m atoning from my previous sins by, by putting, by putting the whole deal out there in a way that *would be* easily searchable and by somebody who was interested in the, in the way the process works. But prior to that, it would be tough,
- 21:24 Michael: Uhhuh

21:24 RTH: Y'know, if you, if you poked around the disk drives in my lab, we could probably find a whole lot of interviews out there. But, but the making sense of them would be very difficult to do. Even for me..

WHY IS DES DIFFICULT?

21:35 Michael: Also, the, y'know, playing those media, I mean, media date so fast, the technologies. [RTH: Right.] Because you could imagine, y'know, an AI with the power to summarize and, and, uh, correlate could do some interesting stuff with your data with the transcripts.

21:54 RTH: I have a meeting next, tomorrow? maybe next week? I forget with an AI person about that. I'm, I'm not, I haven't decided whether I think I should be happy about that or not.

22:05 Michael: Yeah, I dunno. I dunno the answer, but, um, they'll, they'll be coming for you! [laughs].

22:10 RTH: Yeah. Um, I think, I, I, I think there's something, and I haven't may, maybe you can tell me the answer to this. But the, there is something which I think is fun, fundamentally in a, in a different universe between descriptive experience sampling and AI. And if one really understood what the, what those differences were, then they would decide, well, descriptive experience sampling isn't really worth doing, *or* they would decide this is a really important deal and we gotta figure out the.... And I've been trying to figure, I've, I've been trying to figure that out. The diff the difference is, the difference in *procedure* is *stark*! Because AI takes thousands of people and doesn't give a shit about anything, about anything at all, which is exactly the opposite. I take a very few number of people and give a, a great deal of shit about one microsecond of your experience. And I *think* there is something that's fundamentally significant about that, but I, but I don't really know exactly how to articulate that and why I think that. Y'know, I've got, I have the *capabilities* of doing AI. I could, I *could*, but it does not appeal to me at all. And that, and that may very well be a personal, personal peculiarity.

23:41 Michael: But you're right, these are opposite ends of the spectrum of how to approach, uh, crunching mass amounts of data versus a very bespoke kind of process. [RTH: Right.] Um, on the other hand, you could see AI crunching the data you already have and looking at words, words, word selection, and all those kind of questions that people do these days. But someday you'll be asked to sample AI when someone claims they have a conscious AI, and you'll be, it'll be wearing a beeper and you'll be asking it questions. And I dunno. So the, the, it'd be a tougher nut than me! [laughs],

24:18 RTH: The, the, the di... Well, y'know, maybe. But the di, the difference, the difference is, I think, in this ballpark: (and I'm, and I'm not sure about this at all) So I'm, I'm, I've, I've been *thinking* about it, but I haven't solved the, solved the problem. [Michael: Mm-Hmm.] But your, *your*, Michael's struggle to figure out what's actually going on with him is the thing that is fundamentally different from AI. AI tries to say to Michael, "you don't need to struggle. You just, y'know, put the shit in, the shit

comes out, and that's it." You can, you don't have to, you don't have to do any of that. But the *struggle* is the deal, I think. [Michael: Yeah.] More than the results, it is the *effort*. It, I think there's something, Michael: Yeah.] there's something, that, (that, that's what I just said, probably isn't exactly right or even half right) but, but something in that is an important deal, I think.

- 25:17 Michael: Yeah. Well, I think, um, I mean, I learned something from it definitely. Um, so,
- 25:25 RTH: So the different, the difference there, (let me finish that sentence) [Michael: Yeah.] The, the, the difference there is it's not the *facts* that you learned, it's the *approach* to the facts. It's the,
- 25:38 Michael: Well, it's the difficulty of the process is it tells you something about the limitations of your self-knowledge.
- 25:45 RTH: Yeah. Something like that.
- 25:47 Michael: Yeah, no, I get that. I get that. So over the years, people, y'know, any psychological experiment, especially these days, comes under pressure and, y'know, criticisms. Um, I saw a, you, there was a special issue of the *Journal of Consciousness Studies* and you answered a bunch of them. Um, what do you, what would you see as the limitations of the method, if any?
- 26:20 RTH: Well, I think
- 26:21 Michael: Or the, or the, or the criticisms that give you the most, y'know, that are hardest for you to, to deal with.
- 26:37 RTH: [pause] So I think, I think, I think that the, that question is the same question as is why is, is *why is what Michael and Russ did for the last month difficult?*
- 26:47 Michael: Mm-Hmm.
- 26:48 RTH: If we knew the answer to either one of those questions, we would know the answer to the other one of those questions, I think. [Michael: Yeah.] And the, and, and the answer is, everybody's got a vocabulary; that vocabulary's different on the inside as it is on the outside; everybody's experience is limited. The comparative, what you can compare your experience to somebody else's experience. (So I, well, so that's just sort of amusing, uh, not amusing like in funny, but, but a musing)
- 27:27 Michael: Yes.
- 27:28 RTH: The, the, the when, when I, the, the criticism that I think is the hardest, is or the hardest to overcome, and I haven't overcome it on, so is, so what do you, what, what do you do when, when John Jones from Peoria says, "I'm doing DES" and then does something which I, Russ Hurlburt from Las Vegas, would say, "well, that doesn't look like DES to me." And I don't, I don't, I haven't figured that one out.

[Michael: Mm-Hmm.] But I think, I think that's a fundamentally important question, and I don't know the answer to it.

28:16 Michael: Mm-Hmm.

28:17 RTH: Because it takes skill to listen to what people are saying, and people who don't have that skill don't know that they don't have it. [Michael: Right.] And, uh,

28:33 Michael: Well, I think there's this assumption too, that we all speak the same language about inner our experience. [RTH: Right.] And, and as you point out, and, and one of the things you've shown is it's not the case, right? There's a, a wonderful line in the same James essay that I sent you, the stream of thought essay, where he talks about the breach between individual consciousnesses is the biggest breach in nature. And, um, I think that that's, I think there's some truth to that. But we, we, we *assume* because we speak the same language in normal discourse, that, that we, um, uh, that that's, it's not a breach or it's easy to cross that golf. And, um,

29:18 RTH: So I think, I think James is, James is, right. So I think the passage you're referring to is when, when John and James wake up in the morning, John remembers his, uh, they're sleeping in the same bed or whatever, and John remembers his consciousness and James remembers his or whatever. I, so I totally agree with that. And, but I think it's, I think it's *more* than that. And that is that when John talks about his consciousness, or when James or Michael talks about his consciousness, the words he uses on the outside are *not* the same words that he uses on the inside. And he doesn't know that. John doesn't know that. Michael doesn't know that. James doesn't know that. So it's,

29:58 Michael: Yeah.

29:59 RTH: And the, the example that, the example that I think is the clearest about that is about the word "thinking." Have we talked about that?

30:05 Michael: Yeah, we have. And that thinking is covers a lot of different things depending on who you are. And I think that's such a, a powerful idea. By the way, there's a wonderful passage in Proust where he talks about the role of the artist is trying to affect that translation. Um, it's in the last volume. I just read it. I'll send you the page citation.

30:28 RTH: Yeah. That, I'd appreciate that. That

30:29 Michael: Be good. It's, it's a beautiful passage. Um, anyway, um, so you've read this

30:36 RTH: Another, so another, another way of saying when, when I'm going back to what I was saying, I, I don't actually know whether DES should be called science or art.

30:44 Michael: Mm-Hmm.

- 30:45 RTH: I think, I think it's maybe on the edge. [Michael: Mm-Hmm.] But I also think that good science is on the edge of art and good art is on the edge of science. And so I think maybe that's a,
- 31:01 Michael: What I can see what makes it art, what makes it not science? The fact that it's not standardizable?
- 31:09 RTH: Yeah. The fact, the fact that, that I haven't figured out how to, how to be able to say this is, this is good DES, that's not good DES.
- 31:22 Michael: Yeah. I see.
- 31:23 RTH: And I, and I, and I, I, I, I'm totally recognize that it could very well be that *good DES* is an idiosyncratic view. What *I think* is good DES is an *idiosyncratic view of mine* that is entirely colored with my personality and history and whatever. And that, and that what I think is good DES, somebody else could think as somebody else could think of what they do is good DES, and they would, and that would be a totally different thing. I've tried to figure that out. And people, people come to me and say, yeah, I wanna learn how to d, how to do DES, and I try to teach 'em how to do DES. And most of the time I figure out I'm, I'm critical of what they do. And I say, "y'know, you can't do *that* if you wanna do what I think of as DES." But, but I don't, it's, it's hard for me to know whether there is an absolute DES or [Michael: Yeah.] a DES that would be not particularly a Russ personality extension.
- 32:31 Michael: Right. But it seems like you're more on the psychoanalysis side as opposed to the, y'know, hard, hard psychology, social psychology side, in that psychoanalysis, too, is more art than science, or at least half. Um, do y'know what I mean? I mean that the skill of the psychoanalyst counts for a lot, and it's very hard to standardize.
- 32:56 RTH: So I agree with that much. I, I think the data in DES is hard, harder, harder science, harder scientific data than the data in psychoanalysis. [Michael: Yeah.] So when I say about Michael, "he doesn't have very much inner speech," that that's a, a closer-to-truth [Michael: Yeah.] statement about Michael than, y'know, "Michael had conflicts with his father and..." [Michael: Right.] whatever a psychoanalytic explanation would be. [Michael: Yeah.] So I'm
- 33:38 Michael: You have these real data points. Yeah.
- 33:40 RTH: I, I think the, the, I think the data in, in, in DES are pretty stubborn, and I'm not sure that's true in psychoanalysis.

QUESTIONS ABOUT MOMENTS (and William James)

- 33:50 Michael: Yeah. Um, so let's talk about moments for, uh, uh, a moment, uh, or two. Um, you've read James's stream of thought and I actually think in retrospect, the fact that I was reading it closely while we were doing this had an influence on how I was answering your questions. Um, he speaks a lot of the inter-penetration of moments. He speaks a lot of the dynamics of thought and flow. Um, whereas you're doing this

kind of vertical sampling. And, um, I'm just curious to know, how do you, I mean, you said you've said in a previous, in our first interview, that you're interested, you're *not* interested in *moments*, you're interested in *at the moment*, right? [RTH: That's correct.] By which I assume you mean *consciousness* at the moment, or inner experience at the moment.

34:48 RTH: Inner experience at the moment.

34:49 Michael: Yeah. Yeah. Um, but of course, we're bracketing this, this, this phenomenon that, y'know, he described so beautifully, even though it's not, it's more artistic, uh, essay than scientific by these terms. Um, I mean, there's no experiments behind it or, uh, procedures, but it's pretty, y'know, persuasive idea that there is there that, that, that thought flows. Um, so how do you feel about this focus on sampling at moments? And what does it, what does it leave out in terms of, um, the dynamic nature of thought? Or does it help us understand it?

35:35 RTH: That's a good question. I, I [long pause] I guess when I think about it is that it seems to me that if you wanna understand the dynamics of thought or anything else, you have to understand what's happening at *this time*, and you have to understand what's happening at *that time*, and you have to understand what's happening at *this other time*. And once you understand all of that, *then* you can say, "well, this is how I got from here to here...."

36:24 Michael: Mm-Hmm.

36:29 RTH: And, and what I think most people do, including James, is they don't care about, they, they don't care *adequately* about the individuals. They think they can get the dyna, dynamics. People think they can get the dynamics without having the specifics. And I don't believe that. [Michael: Mm-Hmm.] I, I might be wrong about that, but [Michael: Mm-Hmm.] I, I don't believe that to my core. So I, I think I don't get the, I don't get the dynamics. I pretty specifically try not to get the dynamics, because I think the dynamics, the dynamics don't have what, what I called a little bit ago, the, the hard data, the, the hard data points. It's,

37:18 Michael: Yeah. Can you imagine a way to get those though? I mean, like, what if beeps were in closer proximity? Cuz mine are like, y'know, separated by 40 minutes, 15 occasionally. There was one within five minutes. Um, so this idea of getting from point to point we're already on a, such a different tangent or different part of the day or different activity that there's, I didn't find a lot of continuity between beeps or, or even the question raised, how did I get from that to, this didn't really come up because at one time I'm meditating, and another time I'm walking with Judith....

37:58 RTH: So I, [pause] I just don't know the answer to that question, I think. [Michael: Mm-Hmm.] I think, what I think is that if you wanna explain something that's going on in your inner experience *dynamically*, you *have* to be able to say, *I think* you have to be able to say, this is what's going on at this particular moment. And this is what it is that I'm trying to explain. The *problem* is that most people who are, who are talking about dynamics *don't* know or care about what's going on at a particular moment.

And I, I just don't think it's... There's no tether. There's, if you're into that dynamic without, y'know, you gotta have a piton pounded into *this* rock and a piton pounded into *that* rock. And when you *do* that, then you *maybe* can figure out how to get from here to there without falling into the abyss. And, uh,

39:00 Michael: Mm-Hmm. [laughs]

39:01 RTH: And I think most people don't, most *theorists* don't.... They, they try to.... They tell a story that sounds plausible. You, yourself and your sampling told quite a few stories that are plausible and *maybe* even *correct*. I don't, I'm not even [Michael: Mm-Hmm.] I'm not, I'm not denying the correctness of them. But they're, but they're, [pause] they're not tethered tight enough for my taste, [Michael: Yeah.] I guess you would say. Yeah.

QUESTIONS ABOUT fMRI STUDIES

39:36 Michael: Um, oh yeah. Okay. Two questions about, uh, some research you've done or other people have done. Um, you've, you have collaborated with some people doing fMRI scans, is that right? [RTH: Yes.] And what has that told you? Has, does that, I mean, does that correlate if, if someone, I mean, inner speech presumably would activate certain already mapped brain regions. So has it helped you confirm what you're doing? Or, I mean, I don't, I don't know anything about this fMRI research. What, what, what, what did it add to the picture, if anything?

40:25 RTH: So, what what it added to the picture *for me* was that we, we discovered in a, in a case study (or two, maybe I forget) that that inner speech, when it, when it is discovered by DES standards, lights up different areas of the brain than inner speech when it's on demand. And so

40:52 Michael: The, what do you mean on demand?

40:53 RTH: So the, if I put you in a scanner and I say, "say 'elephant'," and you say "elephant," then you say that out loud and then I say, "well, now say 'elephant' to your [Michael: to yourself] to yourself," then you're gonna say in inner in inner speech, "elephant." So that's, that's *on demand*. I'm telling you to say "elephant" and you say "elephant." Or I give you a sentence to say and you say the sentence, or whatever. And, and *naturally occurring* inner speech is I put you into the scanner without giving you any instruction at all. You're in what they call a resting state in the scanner. And, and I beep you. And then after half an hour of such beeps (you get four or five beeps in the scanner) and I pull you out. And then we have a, a standard (whatever our standard) DES interview of the kind that we've been having.

41:39 And then I stick you back in the scanner for another half an hour. And then I do that, then I pull you out and have another interview. And then next week we'll do the same thing again. And the next week we do the same thing again. So I end up with 10, 10 scanner sessions, or something like tha, four, four, four-ish beeps per session. And in some of those beeps that you might be engaged in inner speech, (well not you, cuz you don't have too much inner speech), but *some* people, if we did, that might have some inner speech. And then we can, so we know when the

beep came, and we can rewind the, the fMRI recording and average across the moments just before the beep, and ask, are the same brain regions lighting up *then* as we're lighting up when we were telling you to read the sentence or say "elephant" or whatever. And the answer to that question apparently is *No*.

42:34 And that I think is of fundamental importance because [Michael: Yeah.] most of the people who are doing inner speech research are doing it on demand. They're telling you what to say and then they're gonna say, well, this is the, this is the way inner speech is. [Michael: Yeah.] And *I think* that that's a fundamentally misguided thing. If, if your interest is in what is free-range or in-the-wild or however you want to call it, inner speaking.

43:00 Michael: And was that true for visualization as well?

43:03 RTH: I'm guessing? Well, I don't know the, I don't know the answer. We didn't, we didn't, we had, I think five...

43:09 Michael: You were focused on inner speech?

43:10 RTH: We weren't. We were focused on *people*

43:12 Michael: Uhhuh

43:13 RTH: And because it,

43:13 Russ comments: They have microphone issues.

43:16 RTH: So, so can you still hear me?

43:18 Michael: Yeah.

43:19 RTH: Okay. So I'm getting a message. My default microphone, I, so can you still hear me now?

43:31 Michael: Yep, I can hear you.

43:32 RTH: All right. I'm getting some kind of a message that I'll just ignore

43:37 Comment—end of microphone issues.

43:38 RTH: The, so, so what happened is, is that the, the, some people in Berlin had a lot of scanner time, had some scanner time and an interest in my work. And they said, why don't you come over and spend some time and we'll put some people into the scanner. And so I had like five weeks or something like that to put as many people into the scanner as we could in five weeks, which isn't very many, [Michael: Yeah.] when, when, when you think about how, how much work it is to do one, one person. So we had, we, we had a half a dozen people in the scanner for a long time each, but that's not a random sample. Y'know, we had to find people who were

English speakers in Berlin and, and, and whatever. And, uh, and so we got what we got

44:19 And what we got that was of interest was one person who had sort of a lot of inner speech. And so we could compare *her* inner speaking to, y'know, her speaking on demand. But the, what we didn't, we didn't, the study was *not* let's study inner speech, the study, although part of one, one of the participants in that one in that, in that group of people in involved, uh, Charles Fernyhough, who's got substantial interest in inner speech. And, uh, but, but we didn't set out to study inner speech; that's just what we got.

44:19 Russ comments: The primary investigators were Charles Fernyhough, Simone Kühn, and me.

44:55 Michael: We got. And did that work get published?

44:57 RTH: Yes, we published a couple studies about that.

44:59 Michael: I, I assume it's on your website. I could find it.

45:01 RTH: It is. [Michael:] Okay. So look, yeah, look for a joint publication with Fernyhough. That would be the, probably the...

QUESTIONS ABOUT PEOPLE WHO DO *NOT* HAVE INNER EXPERIENCE (and unsymbolized thinking)

45:11 Michael: Okay. Um, will you just tell me a little bit more about people that you've sampled who *don't* have inner experience, or don't have very much?

45:22 RTH: Well, they fall into two categories. One is I think *kids* don't have inner speech. And, and, and so one of those, so if you, if you looked at that chapter that I sent you chapter *nine*,

45:22 Russ comments: RTH misspeaks. He should have said: "One is I think *kids* don't have inner speech experience."

45:39 Michael: I, Yeah, I did. You looked at kids and, and the elderly, you're mentally compromised.

45:43 RTH: Yeah. And, uh, so I, I I think kid, I think inner speech-ing, I think inner speech is a skill and, and, like riding a bicycle is a skill. And so you

45:54 Michael: Inner speech or inner experience?

45:57 RTH: All forms, all forms of inner experience.

45:59 Michael: Right? Okay.

46:01 RTH: So inner speech is a skill. Seeing a visual image is a skill. Having feelings is a skill. All all, all of those things are skills that you have to acquire. And once you've acquired it, then you think, well, I've had this all, all the way along, just like riding a bicycle.

It's hard to, I can pretend what it was like not to know how to ride a bicycle, but that is not *at all* the same thing as it was when I didn't know how to ride a bicycle. So I, I think that's the, every, everything is a skill. So, so I think young, young people do not have inner speaking have, have inner experience at all. And then I've sampled fairly early on in my career, sampled with a, you

46:41 Michael: Say up to about what age would you estimate? Are you talking about like before they go to school or really young? Like three, two?

46:50 RTH: I don't really know the answer to that. [Michael: Okay.] I, older older than you think, let's put it that way. [Michael: Okay.] But I don't, I don't, I don't want to, I'm not a developmental psychologist. I think there's a Nobel Prize probably for somebody who was a developmentalist and wanted to know what inner experience really was like across the, across the lifespan. I think, y'know, that that would be

47:16 Michael: Oh, that'd be fascinating then

47:17 RTH: Would be totally, totally informative and fascinating. But I didn't do it. The, so I sampled, I sampled with the guy, the first, the first guy that I, that I sampled with, that I did that I decided didn't have inner ~~speech~~ [experience] was a 50-ish, 45-ish, 50-ish, uh, pastor, I guess he was, y'know, professional per a professional person who,

47:17 Russ comments: RTH continues the mis-speaking, referring to inner *speech* when he means inner *experience*.

47:46 Michael: What's a caster?

47:47 RTH: A pastor. Oh, pastor. [Michael: Okay. Got it.] He was, he was a hospital. He was a hospital chaplain, is what his, what his, what his job was, and well respected and, uh, sort of a hospital administrator as well. And, but when we sampled him, we, we just, there was nothing like inner ~~speech~~ [experience]. And what that means is that, y'know, he didn't, he never had any visual imagery and he didn't have any words, and he didn't have anything like we would call sensory awareness. And when you subtract all these, all those things out, then you end up with, well, what does he have? And the answer is, well, we really couldn't find that he had anything.

48:22 Michael: But he got perceptions. Right? I mean, he's going through his day doing, having conversations. [RTH: Absolutely.] So it's so if we can separate perception and thought he's, he's, he still has perceptions. Right?

48:37 RTH: Absolutely.

48:37 Michael: Okay,

48:41 RTH: So this, so, so this is... [pause] so I think, I think we could, we could have an, an informative discussion about whether we should say that *Michael* does or does not have inner experience. Because we could say, well, did Michael have visual imagery? And the answer to that is, well, at, at the moment of, of the beep, maybe

one time he did, but most of the time not. And even at the one time we weren't perfectly sure about that. (The one time that I recall is the, the MC on the stage deal.) He's had, he's, he had, he, he described as I recall them, visual imagery that, that would've been compelling to me to say, well, this is pretty clearly visual imagery, which was the asphalt walkway. [Michael: Right.] But that was not at the moment of a beep.

49:38 Michael: Well, I mean, that goes to how long a moment is, it was within a second, two seconds. But no, it wasn't at the moment of the beep.

49:52 RTH: So, so what, what that does for me is that says, Michael knows what, what inner seeing is; he can describe inner seeing when it happens. It's not like he's got a vocabulary deficit that he can't describe.

50:05 Michael: Not inner-seeing blind.

50:07 RTH: Yeah. That's not, that's not it. But most of the time he doesn't have it. And then much of the time, I would say in our sampling, we, when we had, we had difficulty determining whether words were present. Maybe they were, maybe they weren't. And when and when they were, whether there were sentences or whether it was a couple of words. And when he asked, was asked what those words were, sometimes he said they were one set of words, and some other times about the same beep, he would say there was a different set of words. And which leads you to wonder whether there are words really present there. And so the question then would become, from *my outside* point of view, is, well, is it, I guess what you call the *translation*, is it, is it the *translation*? That he doesn't really have inner experience as some people have inner experience.

51:02 What he's got is perceptions and computations and, and, and skilled interactions which don't make themselves into, uh, organized inner experience. And, and, and *this* is also another answer (and maybe a better answer) to the, one of the questions that you asked earlier: Why is this difficult? Or whatever. So my guess is that if Michael were in, in *my* role, in the *interviewer* role, with somebody else, or a few other people or many *other* people, Michael would see what *those* people are describing visual imagery which is ongoing at the moment of the beep. And there's just no question about that. This is *what's happening* for them. And this other guy is gonna be saying that *inner speech* is going on, and they, and they can tell you exactly what the speech was and where the beep was in the sentence, and exactly what the words were and the pauses. And the, and, and the other... And Michael doesn't have any of that kinda stuff almo, almost ever in the few samples that we've got. And so you could say, well, Michael doesn't have inner experience of *that* sort. And does he have any, any inner experience at all? Well, I think that's an interesting question because I think it depends on how you define, how you define things.

52:33 Michael: You skipped over the category of un symbolized thinking. [RTH: Yes...] Which it seemed to me was what was going on in many cases. There were a lot of cases where I was deliberating between two choices or between, y'know, and there was the, the very first beep, uh, about the roll, and there was the what trail to be on.

And it seemed to me I was, when there, when something is that binary that I was able to navigate it without having to translate it into words or images.

53:18 RTH: And I, I, that was the way I understood it as well. And, and the, and the question I guess is, is whether we should *call* that, whether it, whether it makes sense to call that, that he's engaged in a binary inner experience. He's making a choice that is binary—I'm gonna delete the sentence or I'm not—and that's gonna end up have having impact in the real world—that sentence is either gonna disappear or it's not. But that doesn't necessarily mean that there is a separate experiential process in the way most people define that, that term. And I, and, and I don't have any, I don't, I don't, I'm not at all attached to the terms, [Michael: Mm-Hmm.] but there's, but there, but there are some people who would compellingly say, I have a, I have a faculty that's *before* the footlights of my consciousness, in which I am comparing this to that.

54:24 And maybe I'm doing that with a visual imagery: I got two visual images—I've got a picture with the text and without the text, whatever, side by side; and I'm gonna pick that one. And, and *you*, for good or for ill—and maybe it, it is for good—that, that you are engaged in a binary process *without* a explicitly sort of separable inner-experiential deal. And, and this is, this is what, what led me to send you chapter 19 [9], which was my citing of James. James, James is saying that people who are older and smarter basically [Michael: Mm-hmm] can, can do this stuff without having visual imagery. And he says it, well, it's with words. But I would go beyond that and I would say, well, maybe people who are older and smarter can do it without words *or without pictures or words*.

55:29 And, and then that would then, then the question becomes, well, whether we should call it *unsymbolized thinking* or not. And unsymbolized uns. And, and here again, I I don't have any patent on the word *unsymbolized thinking*, but, but is

55:43 Michael: It a term in psychology or is it your term? I I'm not

55:46 RTH: It's my term.

55:47 Michael: It's your term. Okay.

55:50 RTH: The when, what I, when I wrote about in unsymbolized thinking, which was I think in 2008 or something like that, the point that I was trying to make was that people experienced themselves—some people sometimes—experienced themselves as having a, a very explicit thought that would, would be every bit as complex as could be explained in inner speech, but *without* any inner speech. And the, the closest you came to that, that kind of an example if, if I'm recalling correctly, is your Inspiration Point, *we should go to Inspiration Point*. That was a pretty close to a fairly complex but directly present without words, pictures, what I would call unsym, unsymbolized thinking.

56:45 Then, so the, so the, the point, one of the points of the 2008 article (don't hold me to 2008, but 2008-ish article) was I wanted to make the point that that unsymbolized thinking is not a *gist*, because there are a lot of people out there say, "*well, yeah, I was sort of* thinking about that. And that's what you mean by unsymbolized thinking." No, that's not what I mean by unsymbolized thinking. What

I mean by unsymbolized thinking is every bit as explicit as quote “should I delete this text or not?” unquote. I, I’m thinking, I’m thinking *that*. And it’s not just that I’m engaged in the task of deleting the task, deleting the text, but that I am *thinking* [Michael: Thought about it.] as a separate sort of parallel process. *Should I delete this text?*

- 56:45 Russ comments: This paragraph does not make adequately clear that the *thinking about it* in unsymbolized thinking is directly apprehended before the footlights of consciousness. It is not merely implied, or theorized, or presumed, or suspected. It is as much directly apprehended as would be inner speaking or inner seeing.
- 57:39 RTH: But the, but the inner life is co, is complicated. And so there are sort of gradations of that. What, so unsymbolized thing. And then I think I sometimes call it cognitive awareness. And you had sort of a lot of what I would call cognitive awarenesses where, where there was some before-the-footlights-of-consciousness cognition going on, but it didn’t rise to the level of complexity or specificity or whatever that I would give credit for unsymbolized thinking.
- 58:13 Michael: That’s interesting. But I also think, oh, I’m sorry. Finish your point.
- 58:16 RTH: So, so imagine you, you’re a tennis player and you’ve, and you’re about to hit the shot and you’ve got a, you have a choice to make. I could hit it to the forehand or I could hit it to the backhand. And, and I’m thinking that most good tennis players aren’t thinking, *should I hit this to the backhand or should I hit this to the forehand?* [Michael: It’s automatic, it’s muscle memory.] It’s, I, I, I don’t think *muscle memory* is a good term either, but it’s not, it’s not a conscious, before-the-footlights-of-consciousness thought, thought-y kind of a [Michael: Mm-hmm.] situation. It’s a skilled, *he’s here, I’m there, that’s there. I’m this tired, he’s that tired, it’s this part of the, the point.* [Michael: Mm-Hmm.], all that stuff gets mashed in. And I go that way, not going that way. And, and so I think that the, I think that’s true of, I think that *can be* true of many inner deals and that, and I think is what James had in mind when he wrote about words. But it, but it, it’s worse than James thought, or more than James thought, or beyond what James said. [Michael: Not just words.] It’s not, it’s not just words.
- 59:33 Michael: Yeah.
- 59:35 RTH: And so what what, what I found difficult with *you*, and I think you found difficult with *me*, that we found difficult *together*, was, well, is there, when I’m making this binary choice, is there a thought process about making the binary choice *that’s directly present to me as a thought?* Or am I making this binary choice? And I don’t have to think about it because I’m a skilled writer, I’m a skilled editor. This is gonna go in the same way as I’m a skilled backhand hitter and a [Michael: Right.] forehand hitter. And what I, and what, and what makes my work difficult (and your, yours too, but from a different side), is *you* don’t get a chance to see other people who are trying to explain these kinds of things. So your, your attempt to explain to *Russ* what this experience is like, comes out with, in vocabulary that makes sense *to you*, which has to do with *Well, I was thinking about that and it was a thought process*, but

when I hear it by comparison to other people who have explicit thought processes, well, Michael's thought process isn't very explicit by comparison to what I understand those other guys are doing.

1:00:58 RTH: But, y'know, that's what makes my life interesting [Michael: Yeah.] and challenging. And,

1:01:06 Michael: But y'know, I also think about when we took samples, which are particular times of the day. Um, you didn't get me in the shower. [laughs] You didn't get me lying in bed trying to fall asleep, or waking up. Do y'know what I mean? I mean there's, there's certain for the, when I think about it, a lot of the time was activities that I'm pretty habitual, activities that I'm pretty good at. Um, y'know, just kind of every day, um, deciding what to, what to buy at the Cheese Board or what, where to go for a hike and stuff like that. But I guess I don't even with this. I don't, I, I, I don't doubt that I have inner experience and that, like, even with the, um, the, the, the, uh, hiking one, y'know, I mentioned there were two images. They just were not at the moment. Um, so we have to throw them out, but they exist.

1:02:13 RTH: So I can, a lot of things that I would say about that. So one is I don't dictate when, when you should wear the beeper. [Michael: Right.] And, and the reason for that is that o over the years I've discovered it doesn't, doesn't usually much matter, that people are prob people are more similar across widely disparate situations than, than they might think. But, but I'm not, I'm not actually positive about that.

And, and, and so what, so I recognize that I'm not, I'm, I'm, I try specifically *not* to say, *I'm trying to get at the essence of Michael*. I'm not, I don't know anything at all about the essence of Michael. I got 17 beeps or 29 beeps or whatever we had of Michael. And there were, they were *more or less* random, but they're not *really* random. And they're, they're *more* random than most people get, but they're not perfectly random. And I, and I accept all that stuff and as a limitation of the, of the work that I do. [Michael: Mm-Hmm.] And then the other thing, I forget what the other one...

DID WE GET THE ESSENTIAL MICHAEL?

1:03:18 Michael: Well, about beeps that we didn't catch. Oh yeah. The, the, um, the visual images that were proximate to the, to the decision about where to hike [laughs]. You doubt they happen!

1:03:18 Russ comments: I *do not at all* doubt that they happen. I *do* exclude them from the caught-in-flight moment, primarily on random sampling grounds. Let's say, by way of explanation, that you *like* visual imagery, that (for whatever reason) you like talking about visual imagery, that you *favor* visual imagery over speech. If I allow us to discuss experiences that are *not* caught in flight, then it is likely (under this hypothetical) that when a beep occurs, you will reach farther back (or forward) to retrieve and tell me about some visual image than you would reach to tell me about some speech event. As a result, we would probably conclude that you have more visual imagery than you have speech. But that would be an artifact of the

methodological failure to cleave to what is ongoing at (caught in flight by) the moment of the beep onset.

1:03:38 RTH: (Oh, I know, I know what it was. It's gonna come, it's, it's passing, it's coming. Oh, I, I) When, when we were talking five minutes ago about whether Michael was, had no inner experience, I was *stopping short* of saying *I have come to believe that Michael does not have inner experience*. What I think is that there's probably a continuum out there of how explicitly crystal-clear-y experience is to people. And *on that continuum*, Michael is *closer* to the not-at-all-clear than he is to the crystal-clear end. Why that is.... First, that's, that's what I, that's what I have come to conclude on the basis of 26 beeps or however many beeps we've got.

1:04:31 RTH: Whether, whether that's a characteristic of Michael as, as his essential, the essential Michael, I don't actually know. I get, I, I would presume probably so, but I don't really know. And, and *why*? I don't know the answer to that, either. I, I think it would be a fundamentally important question, whether this is a, this is Michael, Michael getting older, [Michael: Mm-Hmm.] and, and as a result of getting older, having fewer faculties; his, his mental energies gets less and less as he gets older and older. I think that's probably true. And, and the, the lapse of memory that I had a little bit ago is, y'know, I'm older than you are, I think. [Michael: Mm-Hmm.] So the, I'm, I'm, I'm acutely aware of not having as good a memory, a memory now as I, as, as I did in the past. And I'm sure that affects all, all every, everything.

1:04:31 Russ comments: That answer suggests that all age-related changes are deficits, but there are also age-related changes that are positive skills, e.g., wisdom, focus, the ability to differentiate between what is important and what is extraneous.

1:05:24 Michael: Including the ability to reconstruct a moment. [RTH: Yes.] Right. I mean, I think, I mean, I just sometimes just had a lot of trouble *remembering* the answer to your questions, like the actual phrasing of what I thought was inner speech. Um, especially,

1:05:42 RTH: So that's, that's a, that's a *fundamentally important* deal. So the, so the question is: should we conclude on the basis... So I said a little bit ago there was this continuum and he's over here and whatever. Is that because his inner experience is relatively unclear? Or is it because there's a language difficulty, or memory difficulty or whatever that that causes him to not be able to report on, on his inner experience? And I think my, so I.... I think either one of those is possibly true. What I *think* is that psychologists and philosophers give more credence to the memory issues than it deserves. Cuz I think we can, I think we can solve, we never perfectly, but I think we can work at solving the memory issues and to the, to the extent that we can do it, that leaves the inner experience. [Michael: Mm-Hmm]. So, so if I had to bet, y'know, if I'm standing at St. Peter's gate and he's, and he's saying, "here's a right answer here. Is it a memory issue or a...? [Michael: Yeah.] I'm, I'm gonna say, "well, I, I, I think, Pete, that it's a, it's an experiential deal." But I don't whether I'm right about that. Y'know, I, I'd bet I'd bet my admissions on it.

1:07:02 Michael: So you're suggesting it takes, uh, some sort of cognitive power to have inner experience.

1:07:07 RTH: Yes, I think, I think that's exactly right. [Michael: Yeah.] And you have to learn to do it, and then you can forget it, and then, and you can just like any other human skill.

1:07:18 Michael: Right. That makes sense. Well, that's given me a lot to think about. Um, I think there are times when I, I, there's a, I see a different continuum. There's, there's the times when I am having unsymbolized thought that some of which I thought was speech, but in retrospect I realized I was manipulating concepts or without having to actually articulate them, and was working in a kind of shorthand. Um, because these were not complicated decisions necessarily, y'know, where to hike or what, what to buy. Um, so that's, that's, that's one side of things.

1:08:15 Um, there *were* moments where the beep came and I kind of drew a blank. Um, and I'm sure that that moment got filled in by proximate moments. Um, and, y'know, I did have trouble sorting out, um, exactly where that image fit on that, in that experience. How, how close was it to the beep? Um, that kind of stuff. I mean, I do think I struggle with some of the memory issues, uh, in answering your questions. I, I think that that was part of it.

1:08:57 But, um, but definitely less inner speech than I would've thought. Um, I, that was a big takeaway for me. *And* also just the general uncertainty about what's going on in there. But there are times of, there are times in my life, times of day where, where inner experience of one kind or another is just absolutely present. I mean, frequently when I'm meditating, images assail me, um, we didn't, we didn't grab any of those, y'know, just strange images out of who knows where. Um, I was thinking about that this morning. Um, and there are times where I'm hearing words, rehearsing words in my head before I speak them. Um, so anyway, it may be less than most people [laughs], but, but it's, y'know, in the end, if I, if, if I think I've had that experience, I may not have had it at a particular moment in time, but who's to say I haven't had those inner experiences, I mean, except at those moments [RTH: Right.] that we, that we took our samples.

1:10:07 RTH: Yeah. I, I think it's just not, I think it's not possible to know definitively.

1:10:07 Russ comments: The issue here is not so much about the *existence* of clear inner experience for Michael, but its *frequency*. It's possible that (a) Michael frequently has clear inner experience, but the samples we randomly selected didn't happen to land on those experiences; (b) Michael has occasional (but rare) clear inner experiences, but because of his self-theory or their salience, he remembers them (characterizes himself) as having higher frequency than they are; or (c) Michael and RTH have yet to figure out how to talk about these aspects. We could, perhaps, sort some of that through if we sampled over more days and at different times of day and different kinds of occasions, and so on.

1:10:15 RTH: (continues) And, and that comes back to sort of the question I was raising where you raised, and I was trying to answer at the, at the outset, having, having to do with whether, whether, whether what's important about DES is the *answer* to the question or the *questioning*. [Michael: Yeah.] And those are two very different, two

very different deals. And that's, and that's what makes, makes DES I think fundamentally different from AI. AI is trying to answer a question, trying, trying, trying to say answer, answer a question, which *seems reasonable to a human*. I guess what the AI thing is about.

1:10:56 Michael: Right. That's the goal. Yeah.

1:10:58 RTH: Whereas, whereas what we're trying to do is to, it has nothing to do with what's *reasonable*. It has to do with what seems like, what I call *high fidelity*. What, and even if we fall short about it, it's, it's, we made an effort at it.

WHAT ABOUT YOUR BULIMIA STUDIES?

1:11:21 Michael: Yeah, no, you did. I thought, and we did. I thought it was really interesting. Um, I think that's all I have. You have anything else? Oh, I have one other question. Um, I read the, your, your stuff in the book on bulimia, which is really interesting. Um, and the multiplicity of inner experience, did that generalize to other pathologies, or, or not? Or you've only looked at that?

1:11:54 RTH: The bulimia sample is my largest sample, which by the way, I've, I have now I believe, submitted that paper to all the bulimia journals and been rejected by all of them.

1:12:06 Michael: Interesting.

1:12:07 RTH: It's, it doesn't fit with their theory of bulimia and therefore...

1:12:13 Michael: [laughs].

1:12:16 RTH: So, so I have another study which I haven't published, which I should publish. And that is that I, I think, I think if you, if we did, we have sampled in a, in a outpatient clinic. So our, my university runs a, um, community-facing mental health clinic, and we sort of randomly sample people from there and, and sampled them. And what you find is

1:12:42 Michael: Not just eating disorders.

1:12:43 RTH: Not just eating disorders. And what you find in, in is those folks have inner experience that is problematic, or weird, or strange, or you wouldn't, you wouldn't con you, you, you can tell the difference between sampling in that population and sampling in a normal student or normal adult population. I, I don't know that we have, I I don't think our samples are big enough to say something more than that about it. But, but that in itself is sort of an important deal. It's, it's

1:13:17 Michael: The character. But did this multiplicity issue come up?

1:13:20 RTH: The multiplicity issue...

1:13:22 Michael: You described,

1:13:23 RTH: ...I'm guessing, came up. I, I'd have to go back and look for sure, but I think the answer to that is yes.

1:13:29 Michael: Yeah. And what about, like, were there schizophrenics in this population? I mean, they're supposed to have a lot of inner speech right? Or voices.

1:13:46 RTH: There in, in that particular sample, I think there was nobody diagnosed with schizophrenia. My first book is about schizophrenia.

1:13:53 Michael: Oh yeah?

1:13:54 RTH: Back in the day when I was trying to figure out what was going on, I thought to myself, basically, y'know, if you're looking at inner experience and you think it, and you, you think the beeper might be, might be worth something, you should sample with some schizophrenics. And the, and if people, people with schizophrenia have different, have the *same* kind of inner experience as everybody else, then you should say, well, y'know, this [the beeper method] was, this isn't a very good method. But if their inner experience is a lot different, then you would think this would be worth pursuing. And so I sampled with them and discovered that it was there, their experience was, would've been different from what I had expected, and therefore I should continue down the, the, uh, DES road. But I haven't really sampled with too many schizophrenics.

1:14:43 So I, so maybe, maybe I should say in the, the world did not work out the way I had anticipated that it, that it would work out. Cuz back in the day when I thought DES was a pretty good thing, I, I thought that by 2024, there'd be *lots of* people out there doing what I'm doing. Y'know, looking at it from nine, or when I started doing this in the, in the seventies or eighties or whatever, I thought this was a good, this was a good idea. There would be a lot of people who were doing it. That hasn't turned out to be the case, which was a surprise or whatever to me. And so

1:15:19 Michael: I Do you, do you have a theory? I know you're allergic to theory, but about this?

1:15:23 RTH: I think, I think (a), it's too hard [Michael: Yeah.] and too time consuming; and, and (b) it, you have to give up your own theories. And people, people prefer their own theories to, to the truth,

1:15:37 Michael: Yeah.

1:15:38 RTH: But, but that isn't the way I thought it was gonna be. I thought there would be huge numbers of people out there. And so I thought, y'know, if I, if I said, y'know, it looks, it looks to me like schizophrenia has different inner experience characteristics, that there'd be a bunch of people out there who would be sampling with schizophrenics. I didn't have to do it because I would've pointed the way and moved on. [Michael: Right.] It didn't turn out that way. And so probably would've been better if I had spent a lot of time sampling with schizophrenics.

1:16:08 Michael: Hmm.

1:16:09 RTH: But,

1:16:10 Michael: But I think you're right. I think it's, it's, it's just too difficult and too time consuming for, um, and as you point out, it's as much art as, as science. I mean, that there, it takes a certain kind of, um, skill that can't easily be taught or translated. And, y'know, I mean, I would, I would've thought some of your graduate students would take it on. Just you say they're mostly clinical.

1:16:37 RTH: I would've thought so too. Yeah. I, I, I was, when I wrote my first book, I was worried, in a way that, that people would just steal this idea and leave me out in the cold. [they laugh]. That's been [laughs].

1:16:51 Michael: You still have it.

1:16:52 RTH: It was, it wasn't, it wasn't that way!

1:16:54 Michael: [laughs]. Great. Well, thank you. This was very helpful in filling out the, the picture. It was a totally fascinating experience. Um, I'm gonna sit down and try to write what I wanna write about this, this, and I might hold off on sending back your beeper for a little bit in case I'm inspired to try it again for some reason.

1:17:15 RTH: Okay. That's fair.

1:17:16 Michael: I'll do another couple beeps.

SHALL WE PUT THIESE INTERVIEWS ON THE WEB?

1:17:18 RTH: And, and we, we agreed at the outset that we, that we, that I might put these interviews on the web, and that we would make that decision after we had the interviews. So we're getting to the place where we need to make that decision. So should I answer, the question I'm asking now is: should I be putting in the effort that it takes to transform these inter, interviews?

1:17:40 Michael: I have no problem. I, I believe in transparency. Um, and in fact, I might point readers to the link. Um,

1:17:52 RTH: Well then what, then what I will do is I will, I will, in the fullness of time, make a website and then I'll send, I'll send you a link to that website. Before I make it public. I'll send you Okay. Link to that website, and you can look at it and you can say, well, I didn't look, didn't know it was gonna like that, or,

1:18:08 Michael: All right. But I don't wanna put you to that work. My, my, my presumption is Sure. Um, the only thing I felt was sensitive that we discussed was my mother and her, y'know, state of mind. Um, but I, I don't think she'll ever see it. [RTH: Okay.] So I'm not, I'm not really concerned about that.

1:18:25 RTH: Well, we can redact or bowdlerize or however, whatever we wanna do with that. And up until the time that we pulled the switch and say, this is, this is public. So, [Michael: Okay.] you should, you, should you have the 51% of the vote [Michael: Okay.] on every minute of the transcript.

1:18:43 Michael: Good. And I'm sure as I'm writing, I'll have some follow up questions and I'll, I'll reach out by email and

1:18:48 RTH: I'd be happy to talk to you. I've, I've enjoyed all of our interactions, and so I presume I would enjoy those as well.

1:18:53 Michael: Great. Well, thank you. Thank you so much. Very, you've been very generous with your time and ideas and everything, so I really appreciate that.

1:19:00 RTH: My pleasure.

1:19:01 Michael: All right. Till next time,

1:19:02 RTH: And I'll, and I will send you, I will send you a, a tape of this

1:19:06 Michael: Yeah, please, if you would. Uh, and if it's gonna be transcribed, I'd love to have it transcript, otherwise I can have it transcribed.

1:19:13 RTH: Okay. I will, I will transcribe it. I will have it, I will have it transcribed. Great. And, and then we can decide somewhere down the road whether we wanna put this

1:19:22 Michael: Yeah. Or maybe part

1:19:22 RTH: Of it, part, part of

1:19:23 Michael: All of it. I would put the last part of it up. I mean, is part of the, I mean, I think the debrief after we went through the, I mean, I don't care which, which part of it you put up, but Yeah. Um, some of it flows.

1:19:35 RTH: I'm, I'm guessing, I'm guessing that anybody who's interested in what we've done would be interested in the conversation that we had today.

1:19:42 Michael: Yeah. Probably.

1:19:43 RTH: But, uh, so I will put timestamps onto this, on, onto this, and then I will send it to you.

1:19:49 Michael: Okay, great. Thank you so much. All right. And let me know if you get to the Bay Area, I'd love to meet in person sometime and I'll do likewise.

1:19:56 RTH: I, Las Vegas. Vegas. We coming to Las Vegas. Okay. And, uh, and if you've got questions or whatever, let me know

1:20:02 Michael: Oh, you'll hear from me. [RTH: Okay.] Take care, Russ.

1:20:05 RTH: Thanks a lot. See you. Bye-Bye.