

**Shrink Rap Radio #155, May 26, 2008, Shrink Rap Radio LIVE #9**  
**David Van Nuys, Ph.D., and Jerry Trumbule, M.A., ABD**  
(transcribed from [www.ShrinkRapRadio.com](http://www.ShrinkRapRadio.com) by Susan Argyelan)

**Dr. Dave:** Hello, world! And welcome to another episode of Shrink Rap Radio LIVE. This is David Van Nuys, Ph.D., otherwise known as Dr. Dave, with my good pal, Jerry Trumbule, here on the line.

**Jerry Trumbule:** Hey, Dr. Dave! How are you doing this morning?

**Dr. Dave:** Hey, I'm doing great. Now, in case anybody's hearing this for the first time, let me just say that Shrink Rap Radio is a weekly show. We only appear here on BlogTalkRadio once a month. If you want to hear the regular weekly episodes, you need to go to either iTunes and look for Shrink Rap Radio or to [www.ShrinkRapRadio.com](http://www.ShrinkRapRadio.com), and you will be able to subscribe to Shrink Rap Radio, which normally consists of interviews with a wide range of fascinating guests and an equally wide range of fascinating topics. So, that's probably enough of an intro here. Jerry, do you have your chat room window open today?

**Trumbule:** I think so. (laughs)

**Dr. Dave:** Okay, good. I've got mine open, too.

**Trumbule:** I've discovered that it's just below where I was normally looking, so it was no big deal to find it this time.

**Dr. Dave:** Yeah, good. And it looks like there's nobody in the chat room, and I don't see any callers on the line. So, that leaves you and me free to do our thing!

**Trumbule:** Yes, sir!

**Dr. Dave:** Yeah. Well, I wanted to start off by sort of bouncing off of you some of the new things that have been happening on the Shrink Rap Radio website over at [www.ShrinkRapRadio.com](http://www.ShrinkRapRadio.com), the first of which are the transcripts. And boy, that has just taken off. We've got some volunteers doing transcripts. What do you think of that idea? Do you think that's an enhancement, or what?

**Trumbule:** Oh, I think it's wonderful. In fact, you'll recall we talked about this a long time ago, that having a print version of some of the interviews would be a great resource, for example, in an Intro to Psychology class. And I think it's great that so many of your listeners have decided to help out, and it looks like they're doing a great job. I see – what do you got on there? – about, oh, it looks like 20 or so have already been transcribed and more in the offing.

**Dr. Dave:** Yeah, that's right. And so it's really amazing. This effort is what? Barely more than a week old, maybe two weeks old, and the response has just really been terrific. I'm really gratified to get this volunteer energy. And one of the things that has not materialized yet is, I heard from a German listener – he's a therapist and a teacher – and he teaches English to high-school German students, I think. And so he volunteered his students, and I heard from a number of students, and they're some of the ones who are listed on the site as "in process."

**Trumbule:** Mm-hmm.

**Dr. Dave:** And of course, it's going to be very interesting to see where their English skills are, and how well they're able to do the transcription, because I think it'd be hard enough for a native speaker to do it, to tell you the truth.

**Trumbule:** Yes, that thought occurred to me not so much with respect to language, but it reminded me of the monks who transcribed the Bible over the years. As we now know, many of them put some of their own thoughts into the transcripts. So, there are many cases in the Bible where a particular verse is not really original; it just was some idea from a monk.

**Dr. Dave:** Yeah. (laughs)

**Trumbule:** And I wondered if you were going over the transcripts with a fine-toothed comb or just letting them ride the way they are.

**Dr. Dave:** I'm letting them ride. Frankly, I don't have the time to go through it with a fine-toothed comb, but I think what I'll do in the case of at least the ones from Germany is I will invite the author – invite the interviewee – to listen back and compare the recording of their interview with the transcript. And if anybody would be motivated to go through it with a fine-toothed comb, (laughs) I would think it would be the person who was being interviewed.

**Trumbule:** Yeah, that's a good idea. It just, you know, I'm not suspecting that anybody is doing this, but it would be an opportunity to put in some other stuff! (laughs)

**Dr. Dave:** Oh, don't put that idea out there! (laughter) It hadn't... Hopefully, there's not going to be any kind of malicious person out there wanting to do something like that, I hope. You know, actually, there might be somebody in the chat room. I see Shadows in the Dark. So, Shadows in the Dark, if in fact you are in the chat room, welcome. They're in the list... Shadows in the Dark, and it's Pure Paranormal Talk Radio. So, I don't know whether I'm, whether there is such a person in our chat room (laughs) or it's an ad that has somehow gotten popped into our area. (inaudible)

**Trumbule:** It's not showing...

**Dr. Dave:** You know, I woke up kind of in the middle... Oh, yeah, Shadows in the Dark says, "I am here, in the chat room." Do you see that, Jerry?

**Trumbule:** No, I don't –

**Dr. Dave:** If you don't see that, you don't have the right thing open, then. You're not -

**Trumbule:** I know. This is what happened. I was getting that double feed again, so I had to pause the feed that's coming off of the site. I don't – so it wouldn't interfere with my login phone call.

**Dr. Dave:** Yeah, yeah. Well, you can pause the audio, but you should still be able to open up the chat screen...

**Trumbule:** It's open, but I don't see anything.

**Dr. Dave:** Well...huh. Okay. (laughs) Well, I'll handle any chatting, then.

**Trumbule:** You handle the chat. (laughs)

**Dr. Dave:** I – yeah. So I woke up in the middle of the night, or lay in bed this morning – I can't remember exactly when it was – and I was thinking about people doing these transcripts. And, you know, I was thinking of myself doing a transcript, and in the past, sometimes I've used a transcription machine, which you have a foot pedal so that you can stop it and back it up a few seconds, which I find absolutely indispensable for typing up an audio transcript. And they even make software that makes that possible, and I was looking into the software at one point, when I was doing a lot of market research transcription. I'm just wondering how these people are managing it. As I try to imagine myself using some combination of Microsoft Word and then listening on the audio player, if they need to back it up, it seems like it could be a pretty laborious process.

**Trumbule:** You know, you'll have to get some feedback from people that are actually doing it. I know exactly what you mean, because I have one of those transcription machines myself. I haven't used it for years, but it's very handy to be able to hit that 15-second rewind.

**Dr. Dave:** Yeah. I think I will ask them how they're doing it, because it might be that somebody has figured out a good trick that other people who want to make transcripts could benefit from. So...

**Trumbule:** Yeah.

**Dr. Dave:** So, I'll look into that. The other place that I wanted, you know – and let me just say out loud here that so far, the volunteers have produced, that have actually put up transcripts are Jason Howard, Susan Argyelan, and Jo Kelly. So, a big

shout-out and thank you to them, and a big encouragement to anybody else who wants to support Shrink Rap Radio in this way. Now, speaking of supporting Shrink Rap Radio, another listener, who happens to be a coach – her name is [Sarah Zeldman](#) – and she’s very interested in supporting Shrink Rap Radio, and she said, “You know, you really ought to be getting some monetary support for all the time and effort that you put in, in producing this show. Why don’t you have a tip jar?” And you know, I felt a little funny about asking people to make donations. And then she turned me on to a service that allows me to offer to people an opportunity to put a link to their blogs. So, actually – Shadows in the Dark, I hope you’re still listening – because if you go to [www.ShrinkRapRadio.com](http://www.ShrinkRapRadio.com) in the right-hand gutter area, you’ll see a widget called Top Spots. It says, “Are you in my Top Spots?” And for a \$20 Paypal donation there, your podcast or your BlogTalkRadio show, Shadows in the Dark, would have a link there. Plus, when people mouse over it, they would read a little message that you put in there. And so, so far, we have one person. What do you think of this idea, Jerry? I was afraid, “Aw, is this being too money-grubbing? Is this going to turn people off?” What’s your, what’s your impression?

**Trumbule:** No, I think it’s great. In fact, I’ve been looking into similar things. I mean, this labor of love can only go so far when you’re (laughs)

**Dr. Dave:** (laughs)

**Trumbule:** I know, for example, you have spent quite a bit of money in your hardware set-up, and this is just a way for people to say, “Yeah, I support this.” In fact, I’ll be putting up my blog under “direct” into your Top Spots as soon as we get off the air. I –

**Dr. Dave:** Oh, great.

**Trumbule:** I don’t want to try it now, because I’m afraid it might cut me off. But no, it’s a good idea. I have located another one called Fundable, in which you propose a particular project. And the way that one works is, if you reach your monetary goal, then you get the money. If you don’t, then everybody gets their money back, and that’s kind of like...

**Dr. Dave:** That’s sort of like a matching, like a matching grant.

**Trumbule:** Yeah. And it’s... I rejected that idea because it seemed too laborious, but I like this Top Spots thing. It seems to me that for \$20, hey, it’s a way to tap into your viewers and perhaps get them to come over and take a look at my stuff.

**Dr. Dave:** Yeah, exactly!

**Trumbule:** And I might even do the Top Spots on my blog. I’ve tried advertising of various kinds, and I even had a period where I had an ad up from... CBS4 had invited me to join their effort. And the advertisement itself was just obnoxious.

(laughs) I just couldn't stand to see it on my website so I eventually got rid of it. But I like this Top Spots idea.

**Dr. Dave:** Yeah. The way this works is, when you put yourself up there, it'll bump the person who's in the number-one position right now. You'll become number one; they'll become number two. Eventually, when ten people sign up and the number-one person will get bumped off. The Widget offered me a couple of possibilities. I could have that bumping arrangement, which I elected to do, or I could say that people could be up for a week, to guarantee them a week, or I could have guaranteed them a month. So I'm... It doesn't look like... It looks like people will get plenty of shelf life here with the bumping arrangement so far. It's not like they're flying off like hotcakes, so you may get a month or several months... although I hope it does. You know, if it really starts to move – if a lot of people make use of it – then I will go ahead and guarantee people. I'd probably want to guarantee them a week, you know, if they weren't getting enough exposure.

**Trumbule:** Mm-hmm, yeah. It's going to be an interesting experiment.

**Dr. Dave:** Yeah, so we definitely want to talk about some psychology here and just to foreshadow a bit, we'd talked a little bit about some topics we might get into. And so we're going to talk a little bit about memory; we're going to talk a little bit about crows and crow memory, I guess; and then we're probably going to talk a lot about Second Life, which you and I have begun to explore. But let's start off talking about memory, because that's what my last regular Shrink Rap Radio radio show was about, and I know that you listened to that. And as a matter of fact, our listener says, "Hmmm...memory! I need some help with that." I'm right there with you, Shadows in the Dark. That was one reason I was very interested to have this guest, and Shadows in the Dark, let me refer you to this book because you might be interested in reading it. I'll grab it...there, I have it in my hand now. It's written by Sue Halpern, and the title is [Can't Remember What I Forgot](#): The Good News from the Front Lines of Memory Research. I was really, to me, it was exciting to interview her, first of all, because the topic is of great interest to me. And the book has turned out to be very well written, when I got it. And then I encountered, as I was reading through the book, I saw, I think, two or three other people that I had interviewed who were cited in her book. And so I thought, "All *right!*" (laughs)

**Trumbule:** Yeah.

**Dr. Dave:** I'm hangin' out with the right people here!

**Trumbule:** Yes, indeed. In fact, independent of Shrink Rap Radio, I get this psychology wrap-up feed once a week, and I review it just to see if there's anything in there of interest. And sure enough, her book was in there, and I think you noted on the show that she also has an article in the New Yorker magazine. Is that correct?

**Dr. Dave:** Yes, and that was kind of synchronistic or coincidental, because the interview was already set up, and the interview was going to take place in just like two or three days. And then I got my current issue of the New Yorker magazine, which I subscribe to, and she has the lead article...

**Trumbule:** Yeah.

**Dr. Dave:** And it's not about memory; it's about virtual reality to treat post-traumatic syndrome, and it starts off talking about the research of Skip Rizzo, at USC, who was somebody that I had interviewed. (laughs)

**Trumbule:** Yes, indeed. Right up there with...It's a good thing your show not only has the depth of a huge variety of psychologists, but I know we've talked about this before, to try to pin down individuals who, for one reason or another, are bobbing to the top of the media stream. And I think with Dr. Halpern, you hit it in the head there.

**Dr. Dave:** Yeah.

**Trumbule:** I can't remember much about what the show was about, but... (laughs)

**Dr. Dave:** (laughs)

**Trumbule:** But, but...

**Dr. Dave:** Well, I thought you would be particularly interested in this book and her work, Jerry, because of your own scientific background. And before I forget it, you know, I'm so happy to have a listener in the chat room. So, let me just say to *Shadows in the Dark* that with your interest in the paranormal, you should look back through my archives, because I've interviewed some parapsychologists, [Stanley Krippner](#) being one notable person. And I think maybe, I plan to interview some others, so stay tuned for that. So, now back to the memory issue. She's an interesting author. She's a Rhodes scholar – Sue Halpern, she was a Rhodes scholar – who went to Oxford, so she's like Yale- and Oxford-educated, and then super-bright to be able to, as a non-psychologist, to immerse herself in this research and to really understand it. It was clear that she really got into it, to understand it in great technical depth and be able to translate it for a bright reader, a bright, motivated reader.

**Trumbule:** Yes, indeed. In fact, I found her discussion of her own work actually to be quite inspiring, that she had the freedom – as a journalist – to get into any topic that she wanted to. And clearly, she is an expert in terms of doing the research, getting the background that she needs to write the articles. I kind of consider myself a journalist, too. Here locally in Denver, I'm trying to cover my little local beat, and I know how difficult that is. And yet, there's a wonderful freedom that comes with being able to pick your next topic, as opposed to getting some kind of an

assignment that you have to do. And she's obviously a master at this, and I can't wait to read the book, actually, to get it firsthand, you know?

**Dr. Dave:** Yeah, I wish I had tagged some portions for our conversation here. If I was totally on the ball, I would've remembered to do that, to run it by you and the audience as well. There's a guy who kind of emerges as the star of the book, in a way. There's a [Dr. Small](#), is his name, and I believe he's an Israeli working in this country who has done some really fascinating research, and it's all narrowed down to the hippocampus. And I know that you know about the hippocampus...

**Trumbule:** Mm-hmm...

**Dr. Dave:** ...and that part of the brain. And it turns out that there are two kinds of forgetting. There's the kind of forgetting that is involved in the pathology of Alzheimer's, and then there's normal cognitive decline that just happens with aging, and it happens at different rates with different people. And it turns out that both kinds of forgetting are, that he's been able to localize this in the hippocampus, but in different areas, that they're different. And he's identified two different molecules that are associated with these declines. And so it creates the possibility that somebody will be able to develop a very targeted kind of drug to... And I have to apologize; I don't remember if there's too much of this molecule or the molecule stops happening and needs replacement. It's one scenario or the other, but potentially, that will be addressable at some point.

**Trumbule:** Yeah, I found it very interesting that what I took away from the interview, there were two parts. One is, don't worry about it unless it's starting to affect your life in a major way. Not being able to remember the movie that you saw the night before (laughs), which – I actually, I watch a lot of movies using Netflix. I probably watch four or five movies a week, and I thought, maybe I should start keeping a list because I can't remember them two days later. I'm going, oh, yeah, what was the name of that movie that I just watched? And so her advice was, "Don't sweat it if it's not disrupting your life." And the second thing I took away was what you were talking about, the molecular basis of memory. That's what I've been kind of waiting for. It almost seems inevitable that we will find, at some point, that memories do have a physical correlate, and how do we get in there and manipulate that? I think you raised the [Penfield](#) studies of stimulation and causing people to remember something they had long thought they had forgotten. And then another aspect that I thought was really good news was her mention of exercise, physical exercise, as the...

**Dr. Dave:** Right, right...

**Trumbule:** ...best thing that you can possibly do. I mean, we tend to look for a new chemical solution to our problems, a new molecular whatever, and yet we're equipped with a built-in generator for that kind of stuff. All we have to do get on the treadmill, or go for a walk, or a jog, or whatever it is. And she specifically

mentioned aerobic exercise. Now, being a very lazy person myself, and also having been on the high-school wrestling team, I have an aversion to aerobic exercise (laughs).

**Dr. Dave:** (laughs) Right...

**Trumbule:** I don't, I try to avoid breaking into a sweat. (laughs) But listening to what she had to say, I realize that's going to have to be a major emphasis in my future.

**Dr. Dave:** Yeah, she was so emphatic about that, and I also heard another podcast with a, it was a psychiatrist who had done a lot of research in this area. And both of them are saying the same thing, that most of the drugs that are out – well, *all* of the drugs – have side effects.

**Trumbule:** Mm-hmm.

**Dr. Dave:** And often the drugs... For example, for Alzheimer's, the drugs that are out there right now that they give to people suffering from Alzheimer's have a barely noticeable impact.

**Trumbule:** Mm-hmm.

**Dr. Dave:** They're not terribly effective, and they have all these side effects. And both of these people were saying that for just about every ailment – every human ailment there is, just about – exercise will help it, and with none of the side effects associated with drugs.

**Trumbule:** Yes, indeed.

**Dr. Dave:** So, I'm taking that to heart myself, and I'm working out on my stationary exercise bike. I wanted to read you just a little passage here from the book that I did find. I can't find the one I wanted, but here's the little passage. And I mentioned this Israeli Dr. Small, and she says, "Small had started with a single assumption, that certain kinds of memory problems began in the hippocampus, and from there found a particular region, the [entorhinal cortex](#), where something was amiss for people with Alzheimer's disease, and a completely different place in the hippocampus, the [dentate gyrus](#), that went awry as people aged. From there, the road diverged. When Small and his colleagues traveled down the path of the entorhinal cortex, they found the [retromer](#). When they went down the path of the dentate gyrus, they found both the RbAp48 molecule and neurogenesis." And it goes on from there, but that's just enough to sort of tantalize you, Jerry, and maybe some of our listeners.

**Trumbule:** Yeah, it brings up a memory. I don't know if it's appropriate or not, but when I was in graduate school in physiological psychology, one of the courses we had to take was a year-long physiology course – neuroanatomy, actually – in the medical school. And we each, each team of, I think, three people actually had a

cadaver that we worked on. And at the end of the semester, we were taking a practical exam in which – oh, what is his name? I can't remember his name – a very famous physiological psychologist was teaching the course, and he would come around to each station, and he would ask us specific questions about the interior anatomy of the brain. And of course, we were all nervous and sweating it. And he got to the station next to mine, and the brain is exposed, and he was using his little pick to get down. And where the dentate gyrus actually was, he noticed something, a white calcification of some kind. So, he started picking away at it, and he found a tooth embedded in the brain that had been put there by the students...in the dentate gyrus.

**Dr. Dave:** (laughs)

**Trumbule:** Now, that was supposed to be, that was supposed to be a joke, right?  
(laughs)

**Dr. Dave:** Yeah. (laughs)

**Trumbule:** He, he was not, he was not impressed. (laughs) I don't know what grade they got, but I remember that I was next, and I thought, oh, man! He's going to hit me with something really hard (laughs) to compensate for what they had done, making him look foolish. And instead, he gave me basically a giveaway question, so I felt that it had a good aftereffect. So, I'll never forget the dentate gyrus as long as I live. (laughs)

**Dr. Dave:** (laughs) Right. It's the "tooth place" in the brain.

**Trumbule:** Yeah, right! (laughs)

**Dr. Dave:** The "toothy region." (laughs)

**Trumbule:** Right, exactly.

**Dr. Dave:** I was just trying to find this thing that I sent you that you said you didn't get. And it was, I'm changing topics now to the little crow discussion that we wanted to have. It's time for us to eat crow? No, not to eat crow. But as you know, I'm a huge fan now of [Ted.com](http://Ted.com)...

**Trumbule:** Mm-hmm, mm-hmm...

**Dr. Dave:** ...where I watch those videos, actually, while I work out on my stationary exercise bike. I've got my little iPhone propped up there, and I'm watching those videos. And I find a... I didn't think that I was going to be watching videos on the iPhone, but it turns out that this is the perfect application because I don't have a TV set or a VCR in the garage, where this bike is. So, and the Ted.com videos are just such wonderful content. They're all so inspiring and educational. So there was one

with a guy who worked with crows. He just started working with crows in the wild. And crows are so incredibly smart!

**Trumbule:** Yeah.

**Dr. Dave:** He showed a clip, he had a film clip that showed this wild crow fashioning a tool out of a piece of wire. There was a little piece of food in a tube or something that this crow wanted. And the crow finds this piece of wire; wedges it into a crack somewhere; and then uses his beak, then, to shape it into a hook; and then picks up this hook with his beak; drops, dips the hook down into the tube to fish out what he wanted.

**Trumbule:** Wow.

**Dr. Dave:** Now, this is in a brain that is the size of what, of about the last joint of your little finger, maybe?

**Trumbule:** Bird brains are small, it's true.

**Dr. Dave:** Yeah. So, that was just amazing, and it turns out that crows are just incredibly smart. They do all kinds of smart things.

**Trumbule:** In fact, the whole idea of birds being, starting with the evolution from dinosaurs...

**Dr. Dave:** Oh, yeah...

**Trumbule:** You know, that was a radical idea, but I think it's pretty well accepted now, that they've gone down that path. And to me, that's incredible to think that we've got these miniature dinosaurs flying around...

**Dr. Dave:** Yeah, amazing...

**Trumbule:** ...and they evolved into this empty niche, which was the air, and learned how to fly and took advantage... And then they had this, for example, parrots talking – we discussed this before, parrots talking. They don't have many of the same structures we have in our brains, and so people can't quite believe that they're actually using language, as opposed to mimicry. But what was her name? Pepper-, Pepperberg...I think was... [Irene Pepperberg](#)...

**Dr. Dave:** Yeah, Irene Pepperberg, yeah.

**Trumbule:** Ah, her book is, I think, a great read for the doubters because she had to develop her own scientific approach. But getting back to your crows, I've got a little anecdote that may be appropriate here. I used to teach high-school science

classes, and often we would go outside to do this. And one day, we were sitting on a second-floor deck, having a science class. And I lived near a city park in Denver, which has a pretty good population of crows or ravens. I've forgotten which is which, how to tell them apart; maybe they're the same, I don't know. But at any rate, we were sitting there, and this large crow flew up and landed right on the railing of the balcony, and we were all kind of like, whoa! You know, what's going on here?

**Dr. Dave:** (laughs) Yeah...

**Trumbule:** And then – and this harks back to something my father told me years and years ago – that he had had a talking crow. And he believed – and I don't know if it's true or not – that if you split their tongue, they will be able to talk. I doubt that that's true.

**Dr. Dave:** I've heard that, though. How do you grab hold of a crow and then split its tongue? Ooh, I don't even want to picture that.

**Trumbule:** No, it doesn't sound right. But at any rate, so this crow flew up, and we're sittin' there, all freakin' out, and then it said in understandable English, "Peanut butter." And we practically fell out of our chairs!

**Dr. Dave:** Amazing.

**Trumbule:** A talking crow came up and said, "Peanut butter." So, I said to one of the kids, "Go downstairs and see if we have any peanut butter." So they did, came back with a jar of peanut butter. And I didn't open the top, I just loosened the top, and I put the jar of peanut butter next to the crow. And the crow walked over, and using his head and neck, kinda grabbed the top and took it off, and then proceeded to eat some peanut butter...(laughs)

**Dr. Dave:** Oh, wow!

**Trumbule:** And then, and flew away without saying thank you. And we were - I mean, there were only about seven or eight of us out there that morning – and we were all just totally freaked out that we had witnessed this. In fact, I was so much taken by this that I went down to the city park later that day, hoping I could find this talking crow. And I thought, what better way to find him than with some peanut butter? So, I was in the park, yelling, "Peanut butter! Peanut butter!" (laughs)

**Dr. Dave:** And somebody else was thinking, "Who's that crazy guy over there? He's yelling 'peanut butter!' Stay away from him!"

**Trumbule:** "He's got a jar with peanut butter with him!" Who knows what people thought, but... Of course, I never found the crow again, but... And if I had been by myself, I would expect that people would think I was hallucinating or something,

but because there were a group of us, we all agreed that we had actually seen and heard a wild crow come up and ask for peanut butter. (laughs)

**Dr. Dave:** Yeah. Jerry, we've got a couple questions from Shadows in the Dark here, and he asks – he or she, I'm not sure of gender here – “Does brain science really matter, or is it more of how much of the brain is used? Does a crow use more percentage-wise than we do, for example?”

**Trumbule:** Well, that's a good question. I think it harks back to what I think is a myth, that we only use 10% or some small percent of our brains. That myth has been around forever...

**Dr. Dave:** Yes, and I -

**Trumbule:** The fact of the matter is...

**Dr. Dave:** That myth drives me crazy. I've railed at my students about that, as a matter of fact.

**Trumbule:** Yeah, I don't know where that got started, but the fact of the matter is that we pretty much use all of our brain. And the same is true of a bird, that the bird is pretty much using all of the brain parts that are available to it. What I think is different is the construction. The size of the elements is much smaller in the bird, and that's what amazes people, that they can do the things they do without these very large brains that we have. That they can...

**Dr. Dave:** Well, we have a [neocortex](#). Do they have a neocortex?

**Trumbule:** No. Well, they have a cortex, but it's not layered like ours is, and it's nowhere near the size. Because you're right; their brains are actually walnut-size, depending on the size of the bird. But looking for, say, a language structure in a bird's brain that can talk is very difficult. People, I don't think people have nailed that down yet, how a... And I believe, from reading Pepperberg's work, that they actually have language, that they're not using mimicry. And although the experimental paradigm that she sets up is different from what we would expect in, say, a Skinnerian situation, once you agree that her paradigm is useful in studying this, it seems clear to me that they do have language. Oops, I just got an error message here. Am I still on?

**Dr. Dave:** Yeah, yeah.

**Trumbule:** Oh, okay...

**Dr. Dave:** Do you hear me?

**Trumbule:** Yeah, I hear you fine.

**Dr. Dave:** You're definitely still on, and...

**Trumbule:** So, I think, I think we're going to need some more research in this area, and unfortunately, in the past what we've used to try to determine what brain structures are in charge of what behavioral function, we use ablation, where we destroy a particular part of the brain and then see what the effect is. And that's really a crude approach, and hopefully we'll have more refined, sophisticated approaches in the future.

**Dr. Dave:** Yes, well, the new imaging technologies are the thing that have really catapulted this into a whole new level of understanding, you know, a depth of understanding. By the way, our listener lets us know that he is male; his name is Jeremiah. He says, "Yes, see, I've always heard that we have anywhere from 3%-10%. To me, it's like common thought wants to put limitations on us. We never really agreed with that figure." Yeah, I'm glad that you didn't agree with that figure, Jeremiah. Because we really didn't have, you know, you hear people say – and it's often in the New Age movement, or the – where people want to say, "We're only using 10% of our brain," to kind of imply that we have greater potential, and we're not living up to our full potential. And I could probably buy into that notion, that we're not living up to our full potential all the time, but we really don't know enough about the brain to even be able...(laughs) Certainly, at the time that people were making that assertion, we didn't even know enough about the brain to know how much was being used. I mean, there are just a lot of levels on which that doesn't, that kind of assertion just doesn't make sense. But we need to shift topics here, because we are going to run out of time...

**Trumbule:** Oh, no...

**Dr. Dave:** ...and yeah, because I know you and I have a lot to say about Second Life, so...

**Trumbule:** Ah, yes!

**Dr. Dave:** So let me just intro that a bit, set it up...

**Trumbule:** Mm-hmm...

**Dr. Dave:** Ah, part of what has gotten us into this, I think, is that I'm - You're welcome, Shadows! Jeremiah thanks you, Jerry, for answering his questions.

**Trumbule:** Oh, you're welcome.

**Dr. Dave:** I have an upcoming guest who has written a book called [The Making of Second Life](#), Wagner James – and I'm not sure how to pronounce his last name; it's spelled "Au." I've been pronouncing it "oh," but I have to check that out. The

Making of Second Life: Notes from the New World. I heard him interviewed on [Tech Nation](#), and he gave a very good interview. And you and I have been kind of a little bit intrigued and fascinated with Second Life. And you had confronted me – privately, in a conversation some time back, kind of saying, “Well, David, what’s your hesitation about getting into Second Life? Seems like you’ve got some resistance.” You remember saying that to me?

**Trumbule:** Yes, indeed! More than once. (laughs)

**Dr. Dave:** (laughs) So I actually, I thought about that when you said that, and what I came up with was, you know, I *do* have some resistance, and the surface level of resistance that I had been giving was, well, my first life is way too busy to have any time to get involved in some second life.

**Trumbule:** Mm-hmm.

**Dr. Dave:** But I think as I thought about it, as I kind of scratched my own surface and went a little bit deeper with it, I realized – what I got in touch with is – I have almost what might be called a social phobia in first life. I’m not always comfortable with making conversation or light banter, or knowing what to say in a social situation where I don’t have a particular role. And I thought that Second Life might be just a situation where I would go in and I wouldn’t know what to say, or who to say it to.

**Trumbule:** Yeah. And I got in – I guess it was in 2006 – I joined and went on and started to check it out. And I, too, and not the kind of person that just goes up and says, “Hey, how are you doin’?” and “I’m Jerry from Denver,” or something like that. My father was that way, and it was often embarrassing to the rest of the family. (laughs) So, we kind of shied away from that, and I think I recalled our mutual experience when we were undergraduates at Penn, going to these “mixers,” they called them, where they would import busloads of young women from a nearby college. And it was a dance, and everybody was supposed to go and ask girls to dance. And I had a terrible time with that.

**Dr. Dave:** Yeah.

**Trumbule:** I don’t think I ever, I think I got rejected every single time. So, I kind of shied away from that, but I got in anyway, and I checked it out, I explored it. And I saw people were setting up shop to do various things, and I thought, “Oh, that’s cool,” and of course I read the articles about people making a lot of money in real estate. And because I’m, in real life I’m in the stock market in a number of different ways, I was curious as to whether they were going to have their own stock market. And indeed they do; they have two stock markets competing, which is a good thing. And then there’s the trading of the currency. They use dollars called lindens in Second Life, but the beauty of it is that those lindens have a value out in real life. And there’s outside exchanges where you can buy and sell lindens. And trading currencies, of course, is a pretty complicated thing to do, but nonetheless, in

this case it seemed like a sure bet that the linden currency, as the Second Life program grew and became more popular, would probably go up. So, I went in and I started talking to this person – this avatar, a nice-looking woman – and she knew all about the stock market. And I was really impressed, and we were sitting on a bench and I was talking, she was talking. And in those days, they didn't have voice. They just had typing, and that was a little bit cumbersome. And then I kind of noticed that she seemed to be paying attention to somebody else...(laughs)

**Dr. Dave:** (laughs)

**Trumbule:** ...over my shoulder, and I turned around and looked, and sure enough, there was another guy standing there. And to make a long story short, she went off with him. (laughs) And I was going, "Oh, no! It's real life repeating itself!" So, I was kind of hesitant, but I was in it enough to give you a hard time about... Because you're the "first rank," as far as early adapters of technology. You're always out there probing the new stuff, seeing if it's going to work for you. And so I did, I was curious about your reluctance, but now you've gotten into it, and we've discovered a new – new for us – we go in together and we walk around and we do different things. And we kind of...

**Dr. Dave:** We're two wild and crazy guys! (laughs)

**Trumbule:** Yeah! Right! We've had some amazing experiences, just in the two or three times that we've done it...

**Dr. Dave:** Yeah.

**Trumbule:** ...and somehow, attracting very helpful people who have come up to us and started a dialogue. And now, of course, with voice, that's even better, because you get some idea of who you're talking to. And it's been amazing how willing people are to help and give us the insider tips. And I'm still wearing my "newbie" clothes in Second Life, and that identifies me as somebody that really isn't too hip. And...

**Dr. Dave:** Oh, yeah. Let me jump in there –

**Trumbule:** Yeah.

**Dr. Dave:** Because I want us to focus in on the psychological aspects of this experience, and both general observations and our own personal psychological experiences.

**Trumbule:** Yeah.

**Dr. Dave:** And so that was part of the difficulty that I was having, too – even contemplating getting into Second Life, and then when I first got in – is the whole question of identity. And you remember, I was struggling, what will I name

myself? I have to have a name... You know, that's going to project something. And then, there's that whole choice of avatar. What do you want your avatar to look like? Do you want it to look like you in real life? Do you want to go wild with fantasy? Do you want to be a different gender? Do you want to be an animal? You know, what kind of impression do you want to make on the people that you're going to encounter there? And it raised so many identity questions for me (laughs) that I didn't feel I had immediate answers to, it created a little bit of a sense of anxiety for me, initially.

**Trumbule:** Yeah, yeah. Indeed, in fact, I went through the same thing, and I concluded that I would make my avatar look pretty much like I think I really look. Perhaps I would shrink my stomach down a little bit and give myself a few more muscles, but I would be pretty much the person that I am. Now, in our recent visit to Second Life, we talked about that with our helper. And she was talking about people creating avatars that fulfilled their fantasies, and that started me thinking about fantasy. I recalled one time a guy who was into multilevel marketing was putting the sales pitch on me, and he said, "Well, what are your dreams?" And I was going, "Let me see... what *are* my dreams?"

**Dr. Dave:** (laughs)

**Trumbule:** He said, "My dream is to have a really fancy motor home, a really, like a \$500,000 motor home." And I thought, I already have a van; I don't want a hugely expensive motor home that I would be afraid to drive around for fear somebody would run into it. And so I began to look at my... It sounds very limiting, but I don't have many fantasies. Maybe it's because in my real life, I've actually explored many of my fantasies and I've done them. I started a school, and I got into filmmaking... You know, I've had the freedom to actually explore my fantasies. And so just recently, we went to a jazz club, and I expressed some hesitancy to start with because I felt that I was going to be underdressed in my newbie tee shirt and jeans. And sure enough, when we went there, everyone was in tuxedos and evening gowns, and stuff. And so we kind of hesitated at the steps, and while we were doing that, one of the greeters – one of the host people – said, "Oh, we have tuxedos that you can borrow and wear," and kind of invited us to go in and change clothes and put on tuxedos. And I was really reluctant to do that because I don't do that in real life, and I guess that if somebody said, "Oh, you can go there, but you need to put on this tuxedo," I would go, "Uh, I don't think so. If you need a tuxedo..."

**Dr. Dave:** Yeah, yeah, yeah. You would be offended in real life, right?

**Trumbule:** Well, yeah, it's like not having a tie; they give you a tie you can put on, or a jacket or something...

**Dr. Dave:** Oh. Yeah.

**Trumbule:** ...and it doesn't fit; it makes you look like you're one of those people that doesn't have a tie, or a tuxedo. And so I didn't do that. I said, "No, I don't want to do that," and I left the jazz club. And I started thinking about that: Why was I reluctant to put on a tuxedo in some virtual world...

**Dr. Dave:** Yeah.

**Trumbule:** ...using as an excuse that I don't do that in real life. In fact, I do own a tuxedo, which I bought for my son's wedding. It doesn't fit me anymore, but (laughs) that's a different problem. But so I had to kind of do some self-examination about this whole idea of fantasy.

**Dr. Dave:** Yeah.

**Trumbule:** I don't want to be a woman in Second Life. In fact, I think you pointed out that some of the women don't speak, and that's probably because their voice would reveal... In fact, I posed that question to our helper the last time we were in, and she said a lot of people don't speak, not just because they... And she said some women do speak with men's voices, and so that threw that argument out. But a lot of people don't speak because they believe that the sound of their voice is an intrusion into Second Life and conveys more information than they want to reveal.

**Dr. Dave:** Yeah, you know, I was reading about that very thing last night, after that session, in reading in his book, and that issue came up. And at the time that they introduced voice, they took some polls, and about 70% of the people were against having voice.

**Trumbule:** Really?

**Dr. Dave:** Yeah, and I kind of understand that, that there would be a sort of "purist" feeling that you're more in the fantasy when you're sticking to text. It's a different experience. I've had the experience – you know, you and I communicate on Skype. There's somebody else, a colleague I have, and we have great fun communicating on text, kind of joking, and bantering back and forth – a very different experience than when we speak on voice.

**Trumbule:** Hmm.

**Dr. Dave:** And it's actually kind of more fun in this other relationship...

**Trumbule:** Mm-hmm...

**Dr. Dave:** This other relationship is more fun as a text relationship than it is as a voice relationship. And so it's got me thinking about Second Life, that I may not be quite as quick to jump onto the voice route as I have been, thinking that that was the end-all, be-all.

**Trumbule:** Hmm. I wonder in your text relationship that you mentioned, is it that text allows you wordplay, or...?

**Dr. Dave:** Yes. Yes.

**Trumbule:** Is that it? Is that it?

**Dr. Dave:** Yeah, I think that's a big part of it. My humor comes through a lot more in text than in voice. I don't hear you laughing right now, for example. (laughs)

**Trumbule:** Was that intended to be humorous? I'm sorry, I missed that one, Dave. (laughs)

**Dr. Dave:** (laughs) No, it wasn't, but somehow I started laughing!

**Trumbule:** All right, all right.

**Dr. Dave:** So some (inaudible) was tickling me! (laughs)

**Trumbule:** All right, all right. Get a grip. (laughs)

**Dr. Dave:** Yeah! (laughs) I need more time, and we have only five minutes. There's so much more to be said about all these psychological dimensions. I wanted – there's probably not enough. I was going to read Honeyrococo's... Honeyrococo, one of our faithful listeners, e-mailed me a rant against Second Life...

**Trumbule:** Ah!

**Dr. Dave:** ...and I wanted to bounce that around with you...

**Trumbule:** Yes, she's, she's, she's really a (inaudible) kind of a person...

**Dr. Dave:** ...and we don't have a lot of time to do it justice, and...but I'll quickly run it by you, and then we can...

**Trumbule:** Okay, yeah.

**Dr. Dave:** So I had, via e-mail, I had said... Somehow, I had picked up the idea that maybe she was a Second Life person.

**Trumbule:** Uh-huh...

**Dr. Dave:** And she said, "Oh, no. I am the *anti*-denizen. This kind of thing holds absolutely no appeal for me. I'm an art historian because I love materiality. I like textures and surfaces and feeling the world. It took me a long time to wear

dishwashing gloves when I was doing dishes because I didn't like to feel separated from the dishes and the soap and water. And I still cannot wear sunglasses because I feel like I'm in a bubble when I do. I like actually hanging out with my friends and having drinks and dinner, or walking around in new places and swimming in the ocean. I'm also pretty much a radical leftist. Not a liberal, mind you, a leftist! I'm idealistic, and nothing bothers me more than the fact that people are choosing a virtual life that's still predicated on our current destructive economy – an economy, by the way, that drives many people to want to have a virtual life. The whole world is slipping into simulacra and representation – logos, brands, sound bites, avatars, MySpace pages – and I think it's a problem politically. I think community is meant to happen in the real streets, where you have to deal with people, warts and all, and not just with a carefully tuned avatar whose façade is always facing you. In such a system, resistance is reduced to a performance. It becomes ironic. The whole thing is distressing to me. I guess I took the red pill.” She goes on. I'll stop there because we only have three minutes. (laughs) Give me a quick, a quick reaction to that, Jerry.

**Trumbule:** Well, while I would have to agree to certain aspects of that, as a counter-argument, I would point out the virtual campaign of Barack Obama, which I have studied from the very beginning as an example of a “net roots” organization that started on its own and has grown into monstrous proportions and brings him \$30 or \$40 million a month through his network of e-mails and websites, and has created, if you will, a virtual Obama world – which I'm part of, by the way, both to study it as well as to participate in it. So I have a feeling that she may be overreacting and not seeing the potential that this virtual world has for the continuation of her own ideas. I'm sure she's aware that there is a large radical movement inside of Second Life and that...

**Dr. Dave:** She might not be aware of that. Might not be aware of that. And I have to say that I went into it with a lot of prejudices, and having the experience is really opening my mind up in some new ways. We're in our last minute here.

**Trumbule:** Yes.

**Dr. Dave:** And I just wanted to make one last point about Second Life, which is, it's putting me in touch with... You know, we talk about the persona, the social façade that we all have. We're already behind a mask, in certain ways.

**Trumbule:** Mm-hmm...

**Dr. Dave:** Mostly unconsciously. And in Second Life, it's another chance to try out different masks, I guess, or just to be more in touch with the fact that that's what you're in fact doing.

**Trumbule:** Yes. In our last episode, I realized, for example, that a lot of things that I was saying reflected the person that I was in Second Life. And I sounded like an

old foggy (laughs). I needed to somehow readjust my thinking, but I thought it was a good experience because it causes us to think about those things, you know?

**Dr. Dave:** Yeah, yeah. So, it's great not only having you as a partner here in these podcasts, but also in Second Life, and I think having each other's company there is encouraging us to pioneer. We're in our last nine seconds, so I want to say thanks, and thanks to Shadow – Jeremiah – for hanging in here with us.

**Trumbule:** Well, all right.

**Dr. Dave:** So it's allllllllll in your mind...

**Trumbule:** ...allll in your mind...