

## The Podcast *Quantitude*

Greg Hancock & Patrick Curran

Season 4, Episode 7

*The Quanti-House of Horror*

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### **Greg** 00:04

Hi everybody, my name is Greg Hancock and along with my deceptively frightening friend Patrick Curran we make a quantity food. We're a podcast dedicated to all things quantitative ranging from the irrelevant to the completely irrelevant. In today's Halloween themed episode, we have fun talking about things in our academic jobs that scare us from things that are a little scary to things we find absolutely terrifying. Along the way we also mentioned Mrs. Good piccies caramel popcorn balls. Wolf of Wall Street, Kenny T. Forgetting you've told the story before forgetting you've told the story before recurring nightmares, bending but not breaking the zeta of teaching Royale with cheese. Necessary Roughness, authoritative parenting shotgunning pixie sticks, feelings integers. And if it ain't Baroque, we hope you enjoyed today's spooky episode. Is it just me or during Halloween? Was everybody trying to kill us?

### **Insert** 01:00

It was all of us. The entire neighborhood was trying to kill us with needles and razor blades and crushed glass. Dude, what was it about growing up in the 70s where you could not eat your Halloween candy? Because the neighbors of 20 years had baked broken glass into a caramel popcorn ball. That's right.

### **Greg** 01:25

These people you have known your whole life. These people who lived through the stock market crashed the depression world war two people who can their own peaches are making popcorn balls of

### **Insert** 01:39

for those of you listening and who are not our age, we are not being hyperbolic. No, not at all. We had a neighbor named Mrs. Koh picky okay. It was her husband's fault that I became so fascinated with airplanes because he was an aeronautical engineer. And he would give me his old aviation magazines when I was a kid. However, unbeknownst to us, Mrs. Kopicky was trying to kill us. She would make the most amazing homemade caramel popcorn balls wrapped in orange and black cellophane. And we would get home and we report out our candy on the living room floor and my mom would gather them up and throw them away.

**Greg** 02:23

Absolutely. They're first pass through all of your stuff. Anything that looked like it had time taken love put into it. That's gone.

**Insert** 02:34

Razor blades only went into apples. Well,

**Greg** 02:37

that's obvious.

**Insert** 02:38

But needles went into candy bars. Yes. LSD went into the Pixie Stix.

**Greg** 02:45

Yes, that's I mean, there's a real book for the 70s for Halloween candy.

**Insert** 02:50

Because you know, if Mrs Kopicky is trippin on Halloween, she's gonna take her own stash of LSD and give it to a bunch of children.

**Greg** 03:02

I mean, there had to be things that you'd like to about Halloween.

**Insert** 03:05

I love Halloween to one of my favorite now with my kids is when we get back from trick or treating. Everybody dumps theirs on the floor and I say everybody because I go with them. We start bartering. 1982 Wolf of Wall Street's stock market floor I've got Reese's Pieces. I've got Reese's Pieces.

**Greg** 03:31

At my house. When Sidney was little she had a peanut allergy which miraculously she outgrew like I wanted neighbors to give her Snickers bars and peanut m&ms, because then for health reasons I would get to take those out of her basket Tate has celiac disease. So at the end of the night, I have to do a pass and pull out all the gluten things. And then I just really get to replace them with whatever crap is leftover.

**Insert** 03:54

One of my favorite things and it wasn't when I was a kid because it didn't come online until late 80s. Early 90s I'm a huge Simpsons fan. Oh yeah. Oh my gosh, the tree house of horror every year they have a special Halloween episode. It is a play in three acts.

**Greg** 04:21

So should we do that for this episode? Do what? Focus Patrick. Okay, let's carefully borrow from The Simpsons Treehouse of Horror. Can we even call it the tree? Oh, yeah, I know. There are legal issues.

**Insert** 04:43

My thoughts. You've got the shinin you mean shining? You want to get sued? Yeah. We'll have to figure that out. Quanta house of work.

**Greg** 04:54

Go back to your Reese's Pieces.

**Insert** 04:55

I really am enjoying this Pixie Stick. By the way, you should probably see a doctor about your melting face. So on the very first one, they were afraid that kids were going to be scared. And so they had Marge Simpson come out and do a pretend opening on the stage where she gives a content warning. And I don't remember the exact wording, but it's along the lines of please put your children to bed early. Now, instead of writing us a letter tomorrow. Maybe we should have some kind of content warning,

**Marge Simpson** 05:35

today's special Halloween episode of quietude would require a content warning, if it actually had anything you could call content. In fact, the only really spooky thing is that Patrick and Greg choose to spend their time doing this instead of their actual jobs, whatever those are. So if there's anything to be aware of, it's that you don't let them drag you down with them. Thank you.

**Insert** 06:02

The thing they do is there are four components to this. They have the three acts, but they also have special haunted credits. So here's what I think we should do. We should loop tape back in to get some spooky quantity theme music who would he be up for that?

**Greg** 06:19

Would he get like a spooky name to what's the spookiest saxophone kind of name you can come up with?

**Insert** 06:24

Kenny G scares the crap out of me Do you know what it's going to be Kenny T for tape?

**Greg** 06:37

Kenny t alright, we're

**Insert** 06:38

belaboring this, we're gonna kick Kenny T to play spooky music. And then we're gonna do three acts of the quanta house of horror. Thank you for joining us.

**Death** 06:50

Act One, the razor blade in the apple.

**Greg 06:56**

This first act involves the Apple as a symbol because Apple is used at least in the US as a symbol of school. And it sort of goes back to that classic idea of a kid coming to school in the morning a little kid and putting an apple on the teacher's desk. Clearly the most asked kissing was gonna get beat up after school every single day.

**Insert 07:17**

And so where did you get your apples? In the winter?

**Greg 07:21**

Shut up. We started them in the basement. Okay. Right. So in this section, what we thought we would focus on that is things that are scary to us things that we encounter that relate to the classroom teaching, advising all things related to the school kind of setting.

**Insert 07:39**

How about a five start with a super simple one that is highly relevant here. Shoot, I am terrified in my teaching and advising or at the dining room table for that matter of telling the same story twice. I have a horrible habit of doing this part of it is we've established that I've sustained many more concussions than the typical person. And I kind of went to the plate with two strikes against me intellectually to begin with. So I didn't have a lot of wiggle room to work with. Part of it is simple D myelination, but part of it is you and I throughout a week will talk to a lot of different people in a lot of different settings. Yep. And whether that be online teaching, whether it be this ridiculous thing that we're doing, whether it be in front of a classroom, and I know I have told a given story before, but I don't remember in what setting. Just a couple days ago, I taught my structural equation modeling class. And I was two minutes into a story when I realized I had told them a story last week. And there's a time where you just can't walk it back your wrap up your tight 10 and just get off the stage. And how many times when we're recording this have I said dude, have I told the story before? And your usual reaction is? Does it matter? Yeah.

**Greg 09:02**

Well, I never know actually, if we've cut it because I cut so much of the crap that you say. But that's

**Insert 09:06**

another part is I remember telling a story. But I don't know if it made it to a final episode, especially if you edit it. Is there anything that legitimately scares you? When you walk out on the stage?

**Greg 09:20**

Wow, it is funny that you use the term walk out onto the stage because that is how I feel. It is a show. It just is I have this fear almost a terror of being a bad teacher. Everybody sort of jokes about the recurring nightmare that they have some people it's like, oh, I have a test and I can't open my locker and I'm in middle school and I'm in my pajamas. That was very detailed. I went to a drama Magnet High School and I have this recurring nightmare that I go back to my high school. I'm standing in the wings with my drama teacher watching the show as this like returning alum and someone says a line on stage and my drama teacher puts his head And on my shoulder pushes me out on the stage and says Hancock, that's your cue. And I have no knowledge of what the play is, I don't know any lines, I have to

fake my way through the whole thing. I have this nightmare once every month or so I feel so much pressure when I go into the class to deliver. And it's because the material is hard for people, it's because our field is notoriously bad at teaching. So one of the things that terrifies me is that I go into a class, and I don't know what I'm talking about, I do a bad job of explaining it. And I carry that with me every single time,

**Insert 10:36**

I really wish I had that same fear because it would show a bit greater commitment. Maybe on my end, my version of that dream that I really do have is I go out on stage with my trumpet. And I don't have my mouthpiece. You can psychoanalyze that to whatever extent that you're able. I don't have those kinds of fears. Again, maybe I should, I do have something that is a fear for me, when I'm in front of a classroom or this even this conversation, you and I derive a lot of enjoyment out of trying to make people laugh, and trying to make people laugh, maybe in situations that isn't always funny a stats class, or some ridiculous podcasts that we do instead of working our day jobs. But to do that, you have to often push the line a little bit. There's the old saying out of the movie, the thing to remember about comedy is if it bends, it's funny, if it breaks, it's not funny. You see what I mean? I have a legitimate true fear of inadvertently stepping over that line of trying to make a joke and I make somebody feel uncomfortable, I poke in a way that makes them feel bad in some way. And this isn't one of these Oh, the students are snowflakes has nothing to do with that. That's right. It's legitimately trying to make a joke and hurting someone in the process. John Wayne has a famous quote, I didn't look it up before this, and I'm paraphrasing. But he says something like my father always taught me never to inadvertently insult someone. So if I insult you, you can be damn sure I did it on purpose. That's one of my big fears is in my good natured way of trying to get a laugh, I hurt someone,

**Greg 12:29**

one of the things that people might not realize is that this is a moving target, you and I have given the same lectures literally hundreds of times down to the point where we know where to pause, we know where to accelerate, we know where to insert a joke. We know the way we used to joke the last time that we might change the words around a little bit. There really is this stand up aspect to what we do in the classroom. But the audience is different, right. And I don't just mean it's different from year to year, the audience is different over the last 30 years or so things that were funny or things that were meaningful, it has changed what offends people changes what resonates with people in terms of their understanding changes, while we try to work on being good teachers and engaging people through humor or whatever other things that we do at the same time, there's this zeta component to it right, there's this error that makes what we do always a bit random, quite honestly. And that's a little bit scary.

**Insert 13:29**

Now, could I end with one last brief one, that is a very real fear, but is not a hypothetical, it actually happened. So I am capable of being in a room having three people introduced to me. And by the third person, I have forgotten who the first two are, again, whether this be neurons, whether this be some kind of impairment. I made a comment to my wife once about how I can't remember people's names. And she said, you can remember them just fine. You just don't care enough to encode them. And whatever the mechanism is, I was at a conference I had flown in at the end of the day, and they started in the evening. And there were student presentations. And it was after dinner. I sat in the back. He was

in the dark. I had been on airplanes for eight hours that day, there were three or four presentations. There was a break, we were at the hors d'oeuvre table. I went up to the person who had presented and I said, Hey, I just wanted to thank you for that. That was really, really interesting. And I thought you did a great job. And the young woman said, Thank you so much Dr. Curran I haven't presented yet. I just looked at her and I said I'm really sorry. I'm looking forward to your talk.

**Greg 14:47**

I liked you tell that story. And you mentioned like eight different things. That could be the reason that happened, right? Well, it was late. I'm flying at the end of the day and all this stuff. Every reason but you Do you hear that?

**Insert 15:03**

Oh, okay, I'm loving this. That means act one is over.

**Greg 15:06**

Okay. All right. So act one comes to the close.

**Death 15:12**

Back to the needle in the candy bar.

**Insert 15:18**

So Throw me a bone here, brother. We're talking about things that scare us in academia. What have you concocted to have needle in a candy bar be academia.

**Greg 15:30**

Okay, I know you've given a lot of talks around the world, right? I've given some talks around the world. And when you go to different places and present your research, candy bars have different names. Did you ever notice that I did. Yeah. Like Milky Way is called something else in Britain, the American Milky Way bears a closer resemblance to the European Mars Bar rather than the Milky Way sold in the United Kingdom. Okay, so we

**Insert 15:53**

are trying to replicate the opening scene of Pulp Fiction, you know what they call a Quarter Pounder with Cheese. They don't call it a Quarter Pounder with Cheese. They get the metric system, they call it Raha which.

**Greg 16:09**

So this section is going to be about things that are related to publishing or presenting or conferences in general, just the dissemination of stuff that we do. And the process of that things that move terrify us, you

**Insert 16:23**

made point A and you made point B, I haven't seen the link between A and B yet of the needle in the candy bar representing academia.

**Greg 16:32**

Just go with it for

**Insert 16:37**

what bad? Okay, so I've got a very silly little one to begin with. Okay, so we're going through the college application phase, I have a deep fear that my kids might actually go to the University of North Carolina. Wow. Hear me out. Okay. I love you and see. And I think it's one of the best public universities in the world. But I am a faculty. I don't want my children to go to a university that would hire, promote and tenure me. And this is consistent with the text you sent me of the picture of Quinn, holding the UNC informational postcard he got with a look of total incredulity on his face,

**Greg 17:25**

like as if

**Insert 17:28**

so start us out. What scares you about academia?

**Greg 17:31**

Well, I'll tell you one fear that I have had and honestly still have. And this relates to something that we talked about in the previous act. And that is, I am nervous to present in front of really smart, famous people.

**Insert 17:44**

Is that why you're so relaxed around me?

**Greg 17:47**

I'm so chill around. So I remember I was invited to speak as part of a symposium that Chris preacher had organized, and this was probably about 12 years ago or so. It had to do with model comparisons and non nested models, stuff like that. It was a very cool symposium, he said, but I should let you know the discussant is going to be Jim Steiger. And just the way he framed that, right and I didn't have any long history with Jim Steiger or anything, but I went into that absolutely. Freakin terrified of presenting in front of Jim Steiger. I don't know if there's anybody who just scares the hell out of you.

**Insert 18:26**

Jim Steiger.

**Greg 18:30**

interrater reliability. There you go.

**Insert 18:32**

You got to picture for people who don't know Jim. First, he has an IQ of about 302nd. He's maybe six five to 25 with 0% body fat,

**Greg 18:46**

which for the rest of the world is about 195 centimeters and a lean mean 102 kilos.

**Insert 18:51**

So he is intellectually imposing and he is physically imposing and he does not suffer a full.

**Greg 18:58**

No, he does not. So in my case, the presentation went fine, but I have to tell you, as I'm giving a presentation, and he starts jotting down notes, anytime I see his hand move on the piece of paper, I'm sweating bullets inside.

**Insert 19:12**

It is so funny you tell that story because I too, have a Jim Steiger story. Now I'm going to tie back to act one, which is I have told this story before and I don't know if it got cut or not. So listeners if you've heard it, just do what my teenagers do and just smile politely and be patient. The very first time I presented to the psychometric society. I was a first year assistant professor. I went with Ken Bolin. We were presenting simulation work on the RMSEA and I was terrified. I didn't sleep the night before. I made my presentation and this guy who I had never met before and was not wearing a nametag in the front row raised his hand. And he said can you please tell me how you calculated the RMSEA and I got very excited. I was like yeah, So what you do is you take the chi square and subtract the degrees of freedom, that's the numerator. And he said, I am James Steiger. I invented the RMSEA. I almost just peed myself right there in front of a roomful of people. I paused. I said, well, two things. First, you got to wear a nametag. And second, could you please repeat your question? It was a wonderful question Is he meant how did I obtain it in my simulations? Did I base it on the chi square did I obtain the non centrality somewhere else? And one of the punch lines with Jim Steiger is given everything we just said. He's one of the sweetest most supportive human beings. He sought me out afterwards, he pulled me aside, he bought me a beer and we talked for like two hours. And it was one of the most meaningful interactions that I've had. Well, I have a similar story. I'll tell this one. It's much briefer. I presented some work. And Michael Brown was in the audience. Now Michael Brown, again, a titan in the field. Frighteningly intelligent. We met afterwards, I won't try to replicate his voice. He was originally from South Africa moved his family to the States during apartheid. And he had this just beautiful little teen way of talking. He pulled me aside and he said, I think you're using computer simulations as a substitute for thinking. And there was a pause. I had no response, my heart just fell. His next sentence was you're capable of doing so much better than that. And he and I had a two hour talk about how I could improve the way I did my work, how I can think about whatever that might be. Here's my point. For those of you outside of the country, there's a thing called American football. This is not the beautiful game of football with a you This is football with double O's. It's mostly steroids and putting people on the hospital with concussions. There's a penalty that's called unnecessary roughness. Number 25, unnecessary roughness and unnecessary hitting a defenseless receiver. That's a personal penalty. It's 15 yards and it is you hit someone harder than is needed. It is unnecessary roughness. I think there's a complement to that. I think there's a situation of Necessary Roughness. Jim Steiger pulled me aside, Michael Brown pulled me aside. This has also happened to me with Peter Benter, with Bengt Muthen, with Leona Aiken, they said things to me that helped me in so many ways to develop as an academician. But that I would never say to a student now, yeah, you know what scares me? We are



losing Necessary Roughness. I could not even imagine sitting down with a postdoc and saying, I think you're using a simulation as a substitute for thinking. Yet, when I look back over 30 years of my career, that was one of the most important impactful moments that I've ever been part of,

**Greg 23:18**

I am uncharacteristically moved by your point, give me a sec, it'll pass. I think you and I have this tough love gene inside us that we spend a lot of time keeping in check or finding a way to control how that gene expresses itself. But I love everything that you described, you know, there are other people that we encounter that I find absolutely terrifying, as well, or at least I have at different points in my career. And these are always people who are judging my work, right, just like in the presentations we give. And those are the reviewers and the editors that we encounter when we're writing papers. You know, the papers that we write, we don't just throw some crap in a document and throw it off to a journal. I mean, we craft every single word that goes into those documents, these things that we have are our intellectual children, right? We come up with these ideas that we think are important. And then we send it out there and we get this kind of feedback from reviewers and from editors. And I will tell you to this day, it still makes me very, very anxious, even scared to open that that electronic envelope and see what's inside it.

**Insert 24:27**

You know, what's interesting is from parenting, if any of you do parent training or whatnot out there, as you know that I'm making a gross oversimplification of this. You can think about parenting in two domains, discipline and support, just for your mind's eye picture high and low, and make a little two by two square. And you have high or low on each of those in the four combinations. There are whole books written on if you have low support and low discipline that's called disengaged parenting. If you have High support and low discipline that's called permissive parenting. If you have high discipline and low support, that's called authoritarian parenting, every research project ever done has found that the kids do the best in that fourth cell, which is high discipline and high support. And that's called authoritative parenting. And that's what Jim did. To me. That's what Michael did. To me. It was high discipline of saying, I think you're making a mistake in what you're doing here. But it was also high support, which was, I think you're better than this, I think you can make more important contributions, I can help you do this. I think that could be applied to academics in general. And it's a trickle down. It's not a senior person talking to a junior person. If you're a first year assistant professor, you're working with graduate students, if you're a graduate student, you're working with undergraduate students, this works up and down the line in academia, if we're going to play what scares me about academia, it is I believe that we're not only in the process of losing that, but I think it's almost gone entirely.

**Greg 26:12**

I agree. That's a memo I would love people to get in thinking about all of this. Maybe one of the scariest things is that you and I might have become the scary people in the room.

**Insert 26:21**

Right? Neither one of us is easy on the eyes and walking in front of a group. Sorry about that. Okay, folks, you can't see this. But this has just been the highlight of my week so far. is right when I said that Greg was taking a big break of I don't know what any, just spit it up. And so I'm done here. No, you are

exactly right. That is another fear, if we're talking Halloweeny kind of things is that you're scary. And you don't know it. Yeah. My wife has talked to me about that before where she has a big vibrant lab, and it has undergrads and grads she'll even pull in high school students. Wow. And they had a fun thing where they came over to the house, we have a fire pit out in the backyard. And it was just really wonderful thing. And I came out to say hello. And my wife came in later and said she just terrified. What are you talking about, I was just trying to be funny and introducing myself and walking around. But that's the point is you have to realize that you can be scary even when you don't realize it yourself.

**Greg 27:29**

That's right. And you have to work a little bit extra hard to think outside yourself. Because the things that you say matter, little throw away things that you say other people take very, very deeply. So I think we have to make a conscious effort in terms of the things that we say the way that we say things, but also remain committed to providing the constructive feedback that's necessary. I am a big fan of Necessary Roughness honestly, as long as you are able to frame it in a way that people take constructively and improve as a result of

**Patrick 28:00**

There's Kenny T.

**Greg 28:03**

I think you just start the music when you want me to stop talking

**Death 28:11**

back to three LSD in the pixie sticks.

**Greg 28:17**

Alright, first of all the setup for this LSD in the pixie sticks. I will tell you this was terrifying as a kid. But what I'm worried about first and foremost is that I don't even know if pixie sticks still exists. Can you still buy pixie sticks?

**Insert 28:29**

I have no idea. I hated those.

**Greg 28:32**

Oh really?

**Insert 28:33**

I could either eat that or pick up a handful of sand and just throw it in my mouth. It was about the same.

**Greg 28:39**

No, you could not be more wrong. All right. So there were there were little pixie fairy roughness grow from it, Patrick. Imagine a straw like you might get at McDonald's that is crimped at both ends but inside it is some powdered flavored goodness right it is basically raw sugar that has some hint of fake grape or fake strawberry or fake lime or LSD or sour apple LSD. So you would just tear the top off the straw

and shotgun it as you get this mouthful of powder and ingest it. I would save up my money and go to the there's a little store a block and a half away from my house around the corner and you could get three foot long pixie sticks there were these long plastic tubes you know what I'm talking about? I would buy that thing and I would knock the top off of it with my teeth like a wolf trying to get his leg out of a trap I would just chew that thing off and I would tilt it right there like right outside the store. Three feet like basically a meet are full of sugar and I would just all the way down with it all over my face. But oh my god that sugar injection was amazing. So I don't know if pixie sticks are still out there, but they absolutely should

**Insert 30:01**

be. And on Wednesday, if you buy three you get a free insulin shot. These were awful. I hated those. Okay, and let's see in pixie sticks. I've lost track. What are we talking about data analysis and modeling.

**Greg 30:17**

Wait make that connection for us. I dare you.

**Insert 30:21**

Can I tell a 15 minute story that has no point,

**Greg 30:24**

especially if you've told them before?

**Insert 30:29**

I don't know. Like you expect to get something and get something different or academia is better run if you're on hallucinate?

**Greg 30:38**

No. How about this, we leave to the reader to

**Insert 30:41**

Yes, we leave it to the reader to demonstrate the following principles. QED, you know what I'm going to do? I got a couple of the simple ones of ooh, that's scary. Ooh, how scary. Versus earthquake Waller. Yes, we had a whole episode on fungibility. Go ahead and rub yourself with body oil and flux in front of the mirror, about the minima of your likelihood function or the R square that you have move that solution 1/100 of a point to way, and you have an infinite number of parameter estimates that equally meet that solution that terrifies me. Yeah, the other one is a different issue. But a variation on that, which is equivalent models. Oh, yeah, we had an episode on that as well, you have what are called Li and Hershberger rules, and you make a preceding block and a succeeding block. And within the intervening block, there can be hundreds, if not 1000s, of read parameterizations of your model, that lead to exactly the same likelihood. And so my fear is we do all the work that we do. And we get our final model, and we put a little glass dome over it, like the ship in the bottle, and we put it on the shelf. And that really is one of an infinite number of ships in a glass bottle that does scare the living crap out of me just makes

**Greg 32:09**

you feel like everything we do is phonology. And one of the things that really scares me is how many studies get done that are completely underpowered, we're better overall about the awareness associated with power analysis. But as you and I have talked about, and maybe should talk about, again, sometime power analysis has so many moving parts, that it really is kind of impossible to get right in any literal sense. But if you're not seeking funding, where someone is holding you at least minimally accountable for having enough power to detect the things that are really focal for your study, then I think that a lot of people don't even bother doing any even rudimentary assessment of power. Or if they do they do something that is so far off the mark from what they're actually analyzing that they might as well not do a damn thing have this fear. And I don't think it's unfounded that a lot of the stuff that goes on out there is really just work that didn't have a chance, not a prayer of finding a damn thing. And I

**Insert 33:11**

think we should do another episode on power, if for no other reason that we absolutely sucked. I can't stand to listen to anything we've ever done. But oh my gosh, those I want to take out back and set on fire. But setting that aside, in fairness to us in the field, we move into these modeling frameworks that not only do we not know how to estimate power, but power of what that was the point I kept raising in the earlier episode is the power of what recently I've been ensconced myself in some of the new developments in DSM dynamic structural equation modeling. And on some future episode, we can puzzle through that it's really a fascinating new development in intensive longitudinal data designs. Yep, I look at this combination of the SEM with time series with multi level modeling. You can't use likelihood estimation anymore. It's a Bayesian approach. So you don't even have power in the strict sense of what is the probability you would have observed this if the null hypothesis was actually false? Because there isn't a null hypothesis and that way, I look at this whole architecture of the DSM. And then to even think about is your study adequately powered, it's almost overwhelming. So it's not just that a lot of us are going out onto the battlefield not armed in the way that we should. That is a major issue and that does scare me. What scares me is there are so many amazingly cool things being developed and disseminated. I feel overwhelmed by the complexity of it not only the complexity in terms of Gosh, how do you go about doing it but what is power even mean? In a fully blown DSM, I don't know,

**Greg 35:03**

there is that sense that people sort of give up some times where maybe the model is so complex that they don't even entertain power analysis, they don't quite know how power analysis works, maybe methodologically, we haven't done a good job of articulating how to do the necessary sample size assessment that needs to precede those kinds of analyses. It's just plain complicated. And so I think a lot of people just kind of go. And they don't even bother with it. There's another area where I think people just legitimately phone it in, not in psychology as much not in a lot of the social sciences as much. But once you get outside of the social sciences, especially, I think an area where people just don't even think about stuff has to do with measurement, and the quality of measurement, or really more accurately, the complete lack of quality of measurement. There was this article that came out very recently in the Proceedings of the National Academy of Sciences, where it would appear that econometricians have reinvented Likert scales and measurement or what people are sort of laughingly

referring to as feelings integers, the whole idea that we can try to tap into people's perceptions, and maybe even do a good job of trying to measure things that are otherwise inaccessible. I think that so many studies are done with so little attention to the quality of measurement that it leaves me wondering what the hell they're studying, whether it's in terms of the validity of that measure the reliability of that measure, for me, that is one of the areas where so much applied work just kind of falls down. And that scares me when I'm reviewing a paper, if

**Insert 36:38**

we as a field moved to feeling integers

**Greg 36:45**

on a scale of one to five, how out would you be Patrick?

**Insert 36:48**

Look here?

**Greg 36:50**

Okay, that's a that's, that looks like a one. I mean, it's kind of looks like a one. Yeah, I strongly agree.

**Insert 36:59**

things that scare me. And here, I'm going to do a simple one, and then a more serious one. Okay. It doesn't scare me to do an LCM-SR, are a DSEM, or a three level cross classified model, or whatever whack ability stuff we do with the modeling. You know, what terrifies me, the data management, the complexity that goes in to data files that we get these days, whether they be in wide format, and you transpose them too long or long, too wide, or you have a hybrid or you have missing data, or you do all of these things, I have the deepest fears that I blew a match merge right or that I have a if then do a statement that isn't doing what it's supposed to do. Yep, this is not trying to be funny is I live in deep fear that the final rectangular data frame that I bring into the fancy pants models, I somehow reverse coded something in a macro in a way that I didn't intend to. I'm terrified of that.

**Greg 38:03**

Totally. I find myself going back and re checking and rechecking and rechecking in this near OCD way. I feel the exact same way about these larger and larger data files that we have to manage. You get some EMA type data where there's this steady stream of stuff coming in. There are multiple levels to it. There are just so many places to screw up that I think the chance that you didn't screw up is absolutely remote. And that terrifies me.

**Insert 38:29**

And we don't do a good job of teaching data management. And a lot of people look down on that. Well, that's just a mechanical kind of thing. I think it's one of the most important classes, right. So that's mechanical fear. I will pan back a little bit on maybe my biggest fear in modeling and analysis. Okay, and it involves Sean. Sean. Yep. It's all about Sean. I play in brass quintet. Sean is first trumpet. I'm second trumpet. Sean is the sweetest person you will ever meet on the face of the planet. And he is a gifted trumpet player. My aspiration is to be Sean. I get really nervous when I perform as part of the

quintet. We played in a church a while ago, and there were a couple 100 people and my heart rate was like 120. And that does not do well for playing the trumpet. I have this deep seated fear of my plane reflecting poorly on the group. There's a particular song where I play all by myself. I'm not nervous on that. I'm nervous when Sean and I are in this Baroque piece that we play. Because you know if it ain't broke, don't fix it. But um, for those of you who are musically inclined, it's a Gabriella Lee piece. And Shawn and I play a duet and I'm terrified at that because I don't want to make Shawn look bad, right? How does that personality trait generalize? I am terrified of making an error in someone else's project. You and I do a lot of collaborative for you, and I tried to help out when we can, a buddy of mine asked me to do what turned out to be some pretty complicated nonlinear multi level growth models that involve cumulative logits with an interaction. And I spent more hours on that than my own first author papers, because I was terrified that I would do something wrong, that would reflect poorly on his group. So that's one of my biggest fears. It's not MCMC estimation, it's not a saddle point. It's not a flat spot. It's Shawn, I'll tell

**Greg 40:38**

you, there's a funny aspect to what you're saying. In that case, if you hit some wrong notes, Shawn knows when we collaborate with other people whose focus really is on the substance. And you and I are doing more of the number things behind the scenes, they wouldn't know if we screwed up in some ways that puts this incredible pressure on me I understand about performing in front of other people. But if I am the only checks and balances in the whole system, that makes me even more nervous because whatever substantive conclusions, they just go, Oh, okay. That's what Greg said. And like, we wait, who is the one looking in on me to make sure I'm doing it right. And the answer at the end of the day is me that puts like this double pressure on me. So I absolutely feel the weight of that and take it very, very seriously.

**Insert 41:21**

That reminds me of a longer story. When I was a grad student, I decided dude, I'm doing my thing here. You guys are so done here.

**Greg 41:32**

Wow, I guess that's my boy.

**Insert 41:39**

That's your boy. This was a total goofball episode. We hope you had some fun. Our only recommendation is eat the damn popcorn ball. It's the best thing you're gonna have. Alright, everybody, take care. Be safe. Thanks, Kenny. T No problem.

**Greg 41:55**

Gentlemen. Watch out for those pixie sticks. Thanks so much for joining us. Don't forget to tell your friends to subscribe to us on Apple podcasts, Spotify, or wherever they go for things to distract them from thinking about how much Halloween candy they've eaten. You can also follow us on Twitter where we are at quantity food pod and visit our website [quantitypod.org](http://quantitypod.org) where you can leave us a message, find organized playlists and show notes. Listen to past episodes, and other spooky fun stuff. And finally, you can get frighteningly cool quantity of merch like shirts, mugs, stickers and spiral notebooks, from

Red bubble.com Where All proceeds go to donorschoose.org to help support low income schools. You've been listening to quantitative, the podcast Excuse me. Oh, hi, death. Sure. Would it be okay to ask you to put down your side by what your instrument of death? Oh, this,

**Death** 42:44

of course.

**Greg** 42:45

Thanks. Whenever you're ready.

**Death** 42:48

You've been listening to Quantitude, the podcast that essentially does my job for me draining your life away one hour at a time.

**Greg** 42:56

Nice.

**Death** 42:57

Speaking of draining your life away. Today's episode has been sponsored by statistical things that suck the life out of your soul, like models that iterate for three days only to give you an error message, thank you a Manila fee. And by importing the data file from another format, only to have it insert invisible characters and prevent your whole analysis from reading. Good luck finding those. And finally five, getting a significant X to Y direct effect and a significant y to z direct effect. But no significant X to Y to Z indirect effect. Have fun explaining that in your discussion section. This is most definitely not MPR.

**Greg** 43:43

That was really good.

**Death** 43:44

Do you really think so?

**Greg** 43:46

I do. I thought you were great.

**Death** 43:47

Sometimes people say things because they think it will make me let them live longer.

**Greg** 43:51

does it actually work? No. In fact, sometimes

**Death** 43:53

someone being irritating can make me comfort them a bit sooner, Meili. Oh, yes.

**Greg** 43:59

Hmm. Well, Patrick just texted me some suggestions for where he thought your voiceover work could really improve.

**Death** 44:05

Oh yeah?