

Crook: Well, I'm really pleased to be talking with David today. Just a word of introduction. David is distinguished professor in the Department of Educational Psychology at the University of Wisconsin at Madison. There are more bio details on this web page, so this video needs just a little framing first. These conversations usually will be addressing educational practitioners with an interest in education research. Some of them may be contemplating a project. Some may be actually doing one now, perhaps as part of some programs of study. The point being that our listeners are probably research novices on the whole. So this makes the topic of our conversation particularly relevant because we're going to talk about the ideas behind David's book 'Quantitative Ethnography'. A few minutes I spent with Google convinced me that this title phrase was pretty much invented by David. I think one or two economists are using it, but on the whole it's in his space. And so the book could be on one level kind of scholarly introduction to a new idea in research practice. And I feel it is that in part. But it's not just for academics. I think it's also a kind of textbook. But unlike most methods textbooks, it actually seems designed to be interesting. It's thorough, it's humorous, and it seems written with a real passion. So can I ask you David how far instruction motivated this book rather than exposition and how you thought about achieving that kind of if you like research novice guidance effectively?

Shaffer: Yeah, that's really a good question. Thanks and thank you for having me on this little video series or text series. So I guess I wrote the book partly because I've been teaching teaching these methods for some time. And one of the things that I realized was there were there are lots of components that go into any research technique, but this quantitative ethnography in particular, they were just kind of a lot of things that you had to think about, to take sort of sometimes even not well-formed qualitative data and actually do rigorous statistical analysis with it. And so I was trying to be comprehensive, sort of trying to lay out everything in one place. And then I don't know. I've never really enjoyed writing like an academic, particularly. So this was an opportunity for me to lay out the ideas in a way that I thought would be, as you said, comprehensive and thorough but engaging. I wanted to have fun writing it, and I wanted to have people have fun reading it as well as understand what was going on. And frankly, I think in some ways you understand better when something is presented in a in a way that's, you know, clear and and enjoyable to read.

Crook: Yeah, I think it certainly works, you know, speaking for myself. And I think that's been a great achievement. Just if I could sort of share a generalization from me as a fellow teacher of research methods, it seems to me that many novices perceive quantitative methods as proper research. And yet at the same time, they're intimidated by statistics. So they're also unsure about how to adopt qualitative methods and still remain safely scientific now. Is that your experience? I mean, is that the way you think people start?

Shaffer: Well, I think that people - so at least in my experience- there are many people who start with the idea that quantitative research is rigorous and but they're afraid of the statistics, as you say. I think, though, that I also encounter a lot of people who see qualitative research as very rigorous and sort of, you know, look down in a sense on the quantitative research. And so it's sort of like sort of like two camps each on their own hilltop throwing stones. And when you're starting out as a researcher, I think you get drawn to whichever Hilltop seems like the one that you're most interested in climbing. People who are afraid of numbers tend to climb the qualitative hill. People who actually like numbers gravitate towards the quantitative hill in a sense, because there's a kind of deceptive simplicity about statistical analyses, which is partly why they seem so much more pampered. My research and my advisor when I was in graduate school, I used to call it 'scientific' and so. So I think that I think that the issue is really just that. There's a schism between the two methods and every new researcher feels a little bit like they get caught between them.

Crook: What's very distinctive about your book and the position you've been developing, I think, is this effort to kind of find a space in which both of those communities might come together? I think you're advocating what might be called simultaneous or integrated ways of mixing that method. Those methods, because people talk about mixed methods, I think students recognize this and maybe think it's an attractive idea. But my impression is you want to give a rather special meaning to mix. Methods, can you say something about that?

Shaffer: Well, yeah, I actually talk about this a little bit in the book at the end. So, you know, the interesting thing about the term mixed methods is that it refers to a mixture and in chemistry, a mixture technically is when you put two things together and they are in the same space, but they are, then you can separate them again. So like chicken

soup is a mixture. There's the soup, there's the chicken, there's the carrots or whatever other vegetables you have, and you can eat them all together. But you could also take out the chicken and the carrots and the soup, and you would have chicken soup again. The contrast is with us in chemistry. It's called the solution. So lemonade is a good example of a solution. You take lemon juice, water, sugar, you mix them up, you can drink them all together. But there isn't really any good way to extract the lemon juice, the water and the sugar and have them be things that are that are separable again. So I think that the problem with mixed methods is that it is. It essentially says, Look, we have these two warring camps and can't we all just get along and respect that you're going to do your stuff and we're going to do our stuff. Everybody has a unique contribution to make. And I'm actually arguing for a research solution, which is that these two methods are not actually as different as people think they are and that in fact, if you kind of drill down and unpack the assumptions that the methods are making, they share almost all their assumptions in common, except for one or two key ones. And if you kind of keep that straight, then you can actually use the methods, not just one method kind of in conversation with the other, but actually integrated around the same research question, the same approach to research. They become not two separate things, but actually one thing that we're both parts are integral parts of the machine.

Crook: Yeah. So I mean, I suppose you could say or what I picked up from your book as a way of thinking about this common purpose was that they're both kind of pattern seeking enterprises. Is that fair?

Shaffer: That, yeah, that's an important part of it. They definitely are both pattern-seeking enterprises. I mean, I think ultimately they're both supposed to be meaning-seeking enterprises and that those patterns are ways of explaining the underlying meaning. And that's actually something that tends to be retained in qualitative methods very strongly that it's the idea that the what we're describing is a is the meaning that people are making up. The situation tends to get lost pretty quickly in the way many people are taught quantitative methods. And I think that's the strength of actually bringing these two things, not just in conversation, but bringing them together. But yes, they are both ways of trying to establish some pattern and use that pattern to describe some event, some set of events in the world.

Crook: Um, I mean, the other way, I thought it made sense to me to capture what you're saying here is the way we often think about the mixed method is kind of successively. So people say, Oh, I'm going to do a focus group and then I'll do a survey on the basis of what I learn, or I'm going to do a survey and then I'll follow it up with a focus group. And I think maybe sometimes that is the right thing to do, I suppose. But what you're saying is, no, it's more about simultaneous mixing of methods that there is a way of acting both qualitative and quantitative within the same project. And it's that fair. Would that be?

Shaffer: Yeah. So so a simple example following up on your focus group metaphor here would be you do the focus group and now you have the data that was collected by the focus group. Now you can analyze that data qualitatively that you can you can also analyze that same data quantitatively. The book is essentially focused on how it is that we do that. I can say more about that if you want. But but then critically, you want those two examinations to actually be integrated in the sense that your qualitative analysis and your quantitative analysis are both, in a sense, addressing the same underlying claim about the meaning that's going on in the focus. That's kind of the underlying premise.

Crook: Yeah. Okay, let's start from there then, and one of the things that again, I'm putting myself in the shoes of a relative novice researcher, but one of the things you comment on is that Quantitative ethnographic research calls on or rather, I think you use the term transdisciplinary confidence. But how realistic is this for the novice student? I mean, they are typically working alone, and they may lack the kind of experience that you know, gives you that confidence. So is that fair? And how do you manage that, say within your own student community?

Shaffer: That's a really good question. I mean, the short answer is to how we manage it in our own student community is that our students don't work alone. Typically, we have a very strong kind of lab culture. But but you know, generally what happens is people spend some time learning qualitative methods and they spend some time learning at least the basics of quantitative methods. And then those become the foundation for this integration. But that, having been said, one of the places that I've seen the book use is actually as kind of a first introductory methods class, excuse me, where students are actually learning. I would say a little bit about both of those approaches simultaneously,

but actually seeing the overlap between them, I think, and people who use it that way, I think, have the hope that then people go on to get more depth in qualitative research or quantitative research. To be clear, that book is not sufficient training in either of those in either of those techniques, but that they can do so sort of with an understanding of the way in which these two things are actually related to one another rather than completely distinct.

Crook: Ok, OK. Well, before moving on to just think a bit more deeply about how you get to integrate these methods. Can we just start talking about the quantitative a bit more, I think from any novice researcher quantitative does mean survey. I mean, that's what it speaks to them about. Nothing wrong with that. There's a place for that, but you make a lot about the potential of big data, and you rightly remind us of how far digital surveillance has generated rich sets of big data in which we all find ourselves. But where do you find big data in the classroom?

Shaffer: Yeah. So I think to be clear, right? The classroom is essentially a giant ocean of big data. And if you think about it from a teacher's perspective and this is people have been writing about this for a long time, think about the number of pieces of information, the number of things that a teacher attends to in making pedagogical decisions. Certainly, the good teachers do right. There's each student. Each student has a particular posture in class. Each student has their own, their own background that the teacher knows. They each have their own response as the teacher is, is talking. When you pair students up in small groups, there are all kinds of interactions that there could be. So there's tons of information there. The question becomes how would you capture that in some systematic way? And there are a number of different approaches that people take. One of them is you have an observer with a with a checklist of behaviors and other is the core of the classroom. Video Perhaps if they're small groups, you can audio, record or video record the small group right? And that gets you incredibly thick data about what's happening in the classroom. So I don't think the problem is, and I should also say, like if you're using educational technologies, those often produce very rich data. But even if you just took all of the assignments that were turned in over the whole semester, that's a pretty rich source of data right there as to what students are doing. So I think the problem isn't it isn't finding the big data in education. I think it's knowing what to do with it.

Crook: Yeah, so it is partly doing what you've just said, I guess, recognizing that it's there and you're in it maybe. Students need more help in doing that recognition process. I think maybe there's a risk from reading your book because a lot of your examples kind of imply 'learning analytics' or digitally captured data, that students might be misled into thinking: that's what the book is more about. But I guess you're emphasizing in your answer there that it's not

Shaffer: People have analyzed interview data, focus group data, open ended questions on surveys, student student work, you know, homework and essays, and so on. Basically, anything that anything that you can record in some text form, right? You can use using these techniques. So it's not by definitely not limited just to data that comes from digital sources originally.

Crook: Okay. Let me just try on you a couple of reservations that I feel I encounter when when people think about the enumeration of things if you like and I am not saying they are fatal reservations, but just see if you have comment on them, I wonder one thing is if the quantitative disposition kind of leads us into a preoccupation with frequencies of things and relative frequencies of things. For example, I think I read in your book or while reading around it, I think I read the statistic that a third of the world now owns a smartphone, and they take at least one photo a day. Now I have a smartphone, but I rarely take photographs. I mean, perhaps action at the margin of these frequency norms, the one a day photographer gets missed in designing research questions. So we're kind of seduced by the ease of enumeration and correlation. And don't ask 'why is this weird person not taking a photograph' or why, you know? But that's kind of hidden by the average. And so maybe we're distracted from seeking it out.

Shaffer: Yeah. So there are statistical good statistical techniques that can deal with questions of outliers. But you know, more to the point, you know, when you're thinking about human discourse and of course, by discourse here, I mean talking, but also how people take action in the world. Human and human discourse thing, frequency is not always a good guide to to what's important, some of the most important things happen extremely infrequently, infrequently and data, more to the point, if you're if you're, you know, if you're counting, sometimes called coding and counting, right? And you're sort of saying, how much did this happen and how much did that happen? It's a completely bizarre theory of human. Humans make meaning, right? And so here's a way to think

about that. if I literally just was taking field notes, I'm just writing down what happens, you know, as I'm observing you through your day and the people that you interact with and all the things that all the things that happen with and around you. And then I'm going to code it for the number of times. Well, let's say you take a picture. Ok, so now I have the number of times you take a picture. And if I literally took all of that, all everything that happened in your day, you just randomly jumbled it around. The number of pictures that you took would stay the same. And since human beings typically don't make meaning in random, actually there are events and sequences of events and contexts that matter. Simply coding and counting is a terrible theory of how people make meaning. And so what you would want to understand is something about the situations under which you are or are not taking photographs, or the situations in which people are generally taking photographs and people who don't follow that pattern. So you need a much more sophisticated model of discourse. And that's probably what QA is trying to do, actually is trying to recover the context in which in which events happen and then look systematically at those contexts over time.

Crook: Yeah, but in some ways, I guess what I'm trying to do is to draw you into to making these points. It's not that I don't share them, but I think sometimes that they need to be declared, particularly if someone is studying a particular text and is at risk of picking up this idea. I mean, another example. I think it's about the same thing. If I may, I just draw from project on my own. I mean, one of the things I've got interested in recently is lecture capture as a sort of pandemic teaching response. And it's very tempting to because of the the amount of data that's gathered about the use of lecture capture technology, it's very tempting to dwell on all the patterns that can be constructed from system logs. They may tell you about the frequency of engagement, the length of a session, the position and a semester and so on. And much published research does this. So what researchers seem reluctant to do and here in brackets, I'm saying, is it because they're preoccupied with enumeration is ask what students actually do when they take, when they engage with the lecture, you know, how is meaning made from this particular format for presenting material? Now, I'm sure you agree that that that researchers should ask that question more. But I remain worried that we're drawn into a quantitative mix that distracts us from deep level meaning making.

Shaffer: Well, that's absolutely true. And I mean, the way I think about that, the way I think quantitative ethnography argues we should think about it is that ideally you want to

understand the meaning of what's going on. And on some level, you know, the meaning that's going on has to be some kind of close examination of individual individual students in a group to really you have to really understand what that sequence of events is and in a qualitative sense, you know, understand what's going on and more important why things are happening. The point is that in order to when I convey to you, if I literally take one lecture class or two lecture classes and I examine the kind of the way in which that lecture functions and the way that students respond to it and the interactions, whatever that story I'm telling is right. I have to describe that story for you. When I describe that story for you, I'm describing a specific instance of a pattern or I'm saying these events happen and these events are related to those and I'm constructing the story out of evidence. The question that we can ask quantitatively is whether that same story, whether that same pattern that I've just that you've just described is persistent if you look at multiple lectures worth of data. And so at that point, the statistics are essentially trying to warrant the original qualitative claim rather than making a kind of separate claim that's disconnected for meaning. Similarly, if you do your statistics, if you start out looking for the patterns, statistically, you can then say, OK, well, these are the statistical patterns.

Shaffer: Now, if my statistics are in a sense, open to inspection, but is I haven't done some kind of black box machine learning method where I just get a set of parameters or something, and I have no way of interpreting if I can go back to the original data and say, Ah, I can see this pattern that's been described, I can actually see. And here's what it means or doesn't mean in the cases that I can examine. It's that kind of linkage that I think helps us get out of that problem. Part of the reason people don't do that, I think, is there are not as many people trained in both of those methods as we would like. And people often aren't working in teams, and there's a certain mutual lack of respect from people who come from those two different perspectives. And frankly, you know, it's really easy to take a bunch of numbers today. A bunch of data crunch it through some kind of, you know, machine statistical machine learning, whatever you want to call it, and out pops an answer. And not only is it easy, but you get, but it's it's accepted and respected. So of course, people do that. Like, why wouldn't you if you had had those tools at your disposal? You shouldn't. But but like all the temptations are there and the norms by which one would push back are not for the most part.

Crook: Yeah, I think what I'm sort of deviously trying to do in your interests, I hasten to add, is to encourage people to pick up your book in the first place, but then encourage them to recognize there is a lot of talk about numbers as we're talking about now. but there is something that is more familiarly in the qualitative tradition if you if you get under the skin of that. So at some point, for example, in my lecture capture, for example, at some point the researcher is going to think, well, I'm going to have to ask people why they are doing things or I'm going to have to engage with them at a level that feels more like what qualitative researchers do. So let me ask you a bit about the qualitative theme getting to that a bit more detail. I think what comes across to me very strongly in the way you presented it is a concern for culture, not big C culture, not high opera or Shakespeare, but culture in the sense of kind of 'what people do around here' and taking that seriously. The recognition that a human actor is embedded in design for living and they afford and constrain what we can do. So there are many theoretical traditions you could align with if that's the way you're going. And I think, for example, it sounds to me very like cultural psychology, but you have chosen 'ethnography'. Now I wonder about this because I don't find it so strongly visible in the way you approach this. So, for example, ethnographers traditionally insist upon participative immersion in a culture, but I don't feel that idea is strongly put across in your text.

Shaffer: Yeah, I'm so I want to be clear that I'm, you know, I'm not. I wasn't trained as an anthropologist, although the qualitative training that I had was from somebody who was one. And I think a lot of the very interesting some of the more interesting work that people have done writing about qualitative tradition is ethnographic. So, you know, in a sense, following the first rule of ethnography, which is, you know, sort of start with start, with something specific rather than trying to wrap your hands around everything in the universe. I started with, you know, my frame for qualitative research is in terms of ethnography. But yes, there are many, many flavors of of qualitative methods. There are some that, you know, conversation analysis, for example, pays very, very close attention to the kind of micro genesis of meaning, as in even just a sort of word by word and line by line description. But and I've had some I've had some nice arguments with conversation people who do conversation analytics, but stepping back, right? I think that whatever by whatever means, the data is gathered, a qualitative researcher at some point has to look at some set of data, and they have to make an argument by pointing to specific pieces of evidence in the data. There's it's unavoidable. And that act of pointing is actually the place where the mechanisms of science, the edict machinery that we use

to explain things gets what's called the mechanical grip. It kind of attaches itself to the complex underlying meanings that that are happening. And so there are a bunch of different ways that we can qualitatively engage with that understanding of what people are doing. And there are there are a number of ways in which we can analyze that data and argue for the meaning that's happening. But all of those ways will involve this pointing gesture and in a sense, whether that pointing gesture comes from interviews or observations or participation or or, you know, videotape and extremely detailed transcription. And you could go on and on with a number of ways that you could do it. They're always marshalling evidence and showing that there's some relationship between these pieces of evidence. And that's the point at which quantitative ethnography kind of, in a sense, engages with the meaning making. And so I guess I think of ethnography as one starting point for thinking about this, the relationship between qualitative methods and statistics in the same sense that I that I don't think that statistics is monolithic either. There are lots of different approaches to statistical analysis, but they all have to start with with somebody pointing at something, whether it's pointing at your height or pointing at the number of times a number of photos you took or whatever data, whatever data is so quantitative, ethnography is actually trying to look at the bridge between them, rather than make an argument that there's one specific way in which you should conduct qualitative analysis, or one particular way in which you should conduct quantitative analysis. However, I just have. I just danced around your point for four or five minutes.

Crook: It is helpful. I mean, just leads me to. It leads me to another way of expressing my concern, and it's a concern, I think about people misinterpreting perhaps the spirit of what you're doing. I mean, if you take the metaphor of pointing as being primary, it may be at the expense of another metaphor, which is interrogation. And I feel researchers do have to point at things and things come to them readily made, digitally captured, perhaps transcripts and videos or whatever, and they can't point to them and organize them and find patterns within them. But they also have a responsibility to probe and interrogate, and it would be a pity if that message wasn't coming through as part of their responsibility in terms of finding data.

Shaffer: Yeah, I do. I think it's a really it's an excellent point. And so the way that the way that I think about that is in terms of the concepts of edic, which I've already referred to but haven't defined. So edict understanding is the kind of scientific understanding of

of an outsider explaining in systematic terms something that's happening. Emic understanding is the meanings that people in some situation themselves have. And of course, any scientific any research description ultimately has to be edic that is, you have to be using if you're making claims about what's happening in some situation. But the the notion that comes straight out of ethnography is that we owe it to the people that we are studying and also the people who will be reading what we're studying to make sure that those edicts. Uh, that edic description is grounded in the understanding that is I'm not just taking a set of concepts and I'm imposing them on the data, but that I'm actually trying to understand the what the people who would have produced that data, what that what that would have meant to them and then just make my descriptions based on that. Now, of course, there is no, as I'm sure you know, there's no way to actually know exactly what the meaning was for the individuals who made it. Because although culture is public and meaning is public, we we can't. The description of it is always a kind of a second order event. Even if I ask somebody what you were doing, that's just a reconstruction of what they're doing, honestly, what they're doing. So we can never get all the way down to some, some universe, some ultimate truth. But we can warrant that the this the pointing that we're doing is pointing at the meanings and not pointing at the just at the data. So ultimately, and this is actually one of the core ideas of quantitative ethnography, right, is that we we want to make our case in terms of the meaning that we think is happening. But we have to point at the data and say this meaning is happening here and then we have to establish what our rules of evidence are for deciding that that meaning is present. But the pointing is actually that that's why it's that mechanical grip. It's connecting our understanding of meaning and the actual data that we have. And so I mean, yes, it is easy for people to forget that. But I think within one of the things that's true in a quantitative ethnographic framework is that this idea that you need to be in touch with the be in touch with the meanings that people are making to interrogate the data and not just accept it. I think that sort of baked in to the pudding where it's supposed to be anyway.

Crook: Yeah. Again, I mean, you're saying the discourse here is about interrogating the data, and the skeptical listener will perhaps be saying no, it's about interrogating the source of the data, it's interrogating the people. And what makes potentially an ethnographic exercise is that you allow yourself to engage with people's circumstances. And indeed, if you don't have, someone would argue if you don't have the kind of intimate knowledge of those circumstances, so if you can't triangulate from your various

observations of how they live and where they live and why they live, then you can't point at that meaning confidently. So do you see the point I'm trying to make? That's what it seems like. It is an ethnographic exercise, but I don't feel you do justice to that in the book. You don't do justice to the researchers responsibility in in really confronting the source of the data. If you like the actors behind the data.

Shaffer: Yeah. Well, it's a good point. I mean, think though that so I guess my view of ethnography is a little different than the way that you've described it. Or let's just say my view of qualitative research is a little different than the way you described ethnography. So we don't get an argument about what ethnography is and isn't, since neither of us is actually a target, for sure. But so I think that it is true that that what we need to be doing is understanding the determined interrogation, I think is getting us in trouble a little bit because interrogation is a form of in depth asking. And when we say we want to interrogate the underlying people, that sort of implies that we're actually asking them directly. And that's fine to do. But I don't think it's necessarily required. And the reason I don't think it's required is precisely that that ethnography is concerned with culture. I think all qualitative methods are concerned only with culture and culture is a public manifestation of people's underlying behavior. And so if you if you see enough of it, then you actually can have some confidence. We can't be completely confident. But you can have some confidence that you understand some of what's some of what's going on. You know, the easiest way to think about about culture and being in culture is just if you go to a foreign country, go to a country that's not your own right, and there will be different rules and different ways in which people act. One of the easiest ways to learn is if you're willing to make mistakes to go in and try. And every time you make a mistake and somebody corrects you, you understand that the culture works in some particular way. But if you could imagine at least the thought experiment of spending a tremendous amount of time in the foreign country, able to observe what it is that people are doing. Eventually, you could understand some of those meanings and norms and the reasons behind what it is they're doing. The other thing that I think is important to recognize is that in a classic, classrooms are particular places, particular kinds of cultures and their cultures that are actually designed to inculcate people. It's a sort of funny, funny mix, right? And so in classrooms, many things are made explicit that aren't necessarily made explicit in other contexts within a culture. And so our ability to extract information to understand the culture without necessarily having to to participate directly in it, I think is higher. That having been said, yeah, I think, of course, interviewing people is a really

useful part. Part of IT ethnographers toolkit. And if you're able to interview the students and teachers in a class that you're video recording, by all means, you should do it. I'm just arguing that I don't think it's impossible to do good qualitative research without actually talking to the people involved and without actually engaging with them in sort of immersive, qualitative tradition. Those things are those things are good. More data is better, more perspectives or better, of course. But I don't think that that means it's impossible to do any qualitative inquiry attentive to the meanings and the circumstances people are in without doing them.

Crook: Ok, I take back the term interrogation and now substitute 'engagement with' if you like. That's one thing, and I think it's encouraging to see that that kind of engagement is on the menu because there is a danger. I think what you're doing very persuasively is encouraging us to to engage with data much more effectively, much more intimately than normally happens, I think, in educational research. But I would not want a listener to think that that excluded any kind of probing of participants in the way that you were just acknowledging.

Shaffer: Yeah, absolutely. Absolutely. Yeah.

Crook: Okay. So just something very important we haven't talked about, but which seems to me to represent an important bridge between the qualitative the enumeration, if you like, and the researchers interpretive meaning making is coding and. I guess you don't in the book, give many examples in which coding might be done from video. I wonder if there's a danger that the concentration on textual transcription leads you to be presenting a case that doesn't acknowledge linguistic information or nonverbal communication and so on. Presumably, you are open to to capturing speech and talk in that rich way. Yeah.

Shaffer: Yes, absolutely. I mean, there are multiple multiple modalities in which through which people interact in a video, you can you can actually see gestures and so on if you were in in person or there are other parts of our interaction and those are really important. Part of the question is is a mechanical one. Right. So when we encode that kind of data, we can code the video directly, in which case we wind up with a series of codes, usually with a timestamp. So this kind of thing happened at this time and this time at this time or we. Another possibility is that we actually, in a sense, transcribe the

parts of the video that are important to us that are nonverbal, right? So we have some, some language for transcribing gestures. I'm not familiar with it, but people who study in body cognition do have a whole language of describing gestures and and so on. So, you know, one way of thinking about it is that the process of encoding is just a way of going from going from some record of events. To some set of claims about meaning that about meaning that's being made or meaningful actions that are happening within it. Text data has some advantages in terms of the tools we have to work with it compared to video, which is probably why I focus on that. But ultimately, that process of encoding is central to both. Kind of a quantitative meeting making it a qualitative meeting me, so absolutely anything you can any data that you have can be any data that you have that can be coded and which I think is all data you can think about in quantitative ethnographic terms.

Crook: Ok, so again, I'm trying to think on behalf of the novice researcher here, but it feels to me like there are always two problems that that research is experienced when they confront the challenge of coding some material. I mean, one is how to think about it in discrete terms. Now you talk quite effectively, I think, with the metaphor of the poem. And so there are lines of poetry and often in some conversations or some talk that we capture, there are lines of talk. People take turns. And I think when that's the case, one often feels comfortable finding a suitable code for each line of talk or each turn of talk. But talk isn't always like that. I mean, the turns in our conversation are quite long, you know, relative to some transcripts were made about. And so the challenge of deciding how to parcel it in some coded way is quite significant. That's one point. So I could ask at the same time, the second point, which is there's the issue of how much context is needed in order to confidently find the code. And you talk about the stanza as being a way of thinking about that. I think that's a helpful kind of metaphor. But is it is it adequate to all situations in which we're confronting the demand of code?

Shaffer: And yeah. Yeah. So this is a really good point. And you know, the way that I think about coding context is what in what in QE we refer to as derived codes. And the idea of a derived code is that so primary code is when I can point directly at the data and say this is here's the meaning that's being made in a drive code I take. I take two or more original pointing and I put them together to construct the meaning so you can think of. You can think of context this way in the sense that if, if, if you say, if I say, well, somebody just said that they're happy and you say well, but if you look at the context,

that might mean something different. And then I'll say, Well, what do you mean? Where in the content, what evidence are you using to say that that doesn't mean that they're happy, you know, say, Well, look, look up here. We can see this other thing that they said. And now what we're essentially saying is the determination of whatever state we're determining from somebody saying they're happy depends both on what they just said and something that was said previously. And presumably there are some decision criteria. There's some rule, some way you think about, well, how far back should I look and what exactly am I looking for? And when I put those two pointing gestures together, then I get this kind of code in context. But let's face it, your question is so pragmatically, how many things can we address using that method? And I guess what I would say is. That the one of the interesting things I've seen in the pragmatics of coding that is when people actually do it as opposed to us talking about it theoretically, is that on the one hand, there are many more things that people are able to capture simply with the pointing gesture than they initially imagined. Um, and that so I have a student who raised essentially this skepticism. Really, you can do all this just by this sort of pointing. And I said, well, make a list of all the things in this data set that you think we wouldn't be able to capture with this method. And you had a list of like 60 things. And I said, OK, well, now go see, how often do those things happen? And he came back and he said, I get it now, right? Because because we're never going to get perfect coding. The question is where where are we willing to tolerate, you know, interpretive errors? And you know, how much effort are we willing to take to stamp them out? Now there are absolutely some codes that are really, really complex and difficult to capture. I was asking my daughter to use some of our coding tools one day to code basically the complete works of William Shakespeare. So she was developing some automated classifiers. And you know, the the codes were like men, women. Anger, fear. And it turns out you can generally come up with a reasonable set of combinations of words that will that will represent those things. One of the things we were that said we decided we should code for is sex because of course, there's a lot of that in Shakespeare. And she started and eventually she came back and she said, I don't I have no idea how to do this. And basically, there's just so much innuendo in Shakespeare that it's very difficult to to tease out exactly what, whether somebody is talking about their sword or not really talking about their story. And and the thing is, the thing is that in those cases, it's often not always, but often also very hard to get to humans to agree as to what the meaning is. And so so we have this, we have this notion. We start with this notion that things that are complicated are are unambiguously clear if a human looks at them

carefully enough, but it's not actually true. The things that are really complicated tend to be really hard for two humans to get agreement with. And so, yeah, kind of no, no system that you employ for constructing meaning is going to capture that because humans can't agree. Can it be either? Now there are exceptions to that too, right? But you know, the exceptions in the pragmatics of it, of those exceptions get smaller and smaller and smaller, and you can actually accomplish a lot with this sort of systematic way of thinking about coding and lines. And so.

Crook: I hope your daughter included the cross-dressing theme into Shakespeare.

Shaffer: We didn't choose that, but that would that would have certainly been a good one. I'm reminded of an old of an old joke. It's not really a joke, but you know, if everybody went into the same restaurant on the same day in order to do this, there'd be chaos. But they don't, right? So it is true that you can imagine situations where where things break down and they do happen sometimes, but they don't happen quite as often as people might imagine, just looking from the outside.

Crook: Yeah, I mean, I think there are two important for me. There are two important things about what you're saying there. I mean, one is a tolerance of compromise, which we perhaps don't always easily accept and should do. The other thing is, of course, what you are raising and do make very prominent in the book, I think, is the responsibility for really achieving authority in the way you code. And so processes of reliability know a very prominent and you give a good, very helpful discussion of that, I think. But I suppose we have to confront the fact or we have to confront those in qualitative research who would say yes, coding is fine and may feel easy as long as those codes are given by maybe some theoretical underpinning. Or maybe they are given by some hypothesis that's intrinsic to your research. But often meaning making is about finding the codes that best describe them. Now, I didn't feel I saw the phrase thematic coding in the way you presented this. And yet this is a very prominent mode of qualitative research where it feels that the responsibility for the researcher is to find the right way to code this. What do you think about that?

Shaffer: I think it's I think that's correct. The responsibility of the researchers to find the right codes. And you know, we have, as you point out, we have good techniques. And I don't just mean statistical techniques. We have good techniques to try and provide

authority, as you say, to provide a warrant that the way in which we've coded our data is consistent and that, you know, and that means what we think it means by engaging multiple raters and those kinds of things. We have essentially no ways of thinking about testing, whether or not the codes that we've chosen are good codes to choose, whether those are the codes that are going to adequately represent what's happening in the data now. Partly, that's because in qualitative methods, there is more than one story to tell, and my job is to tell you a story that I think is important and meaningful not to try and tell you every story that's in the data. However, that causes a problem when we start to think about fairness and coding and not just kind of accuracy. So, for example, if I have a data set from classrooms and there are, there are many white children and a small number of minority students in the classroom. So when I'm interrogating the data and coming up with my codes, the decision as to what, what story I'm telling and what codes I'm using, if it may and in fact may likely exclude the information from the minority students simply because there's so much more data about the students who are not minorities in this in this hypothetical example. And so I'm going to be drawn to the themes that are most prominent in the themes that are most prominent are going to be the themes that are present for the students who are in the minority group. And so this is called subgroup fairness, actually and literature. Now, one way of thinking about that is we should be explicitly attentive as qualitative researchers to these subgroups. And I agree with that. The issue is there's no particular way to test that currently. We are actually developing some methods in a QE to at least test whether or not, so you can test whether or not the codes that you choose fairly address both, you know, minorities in America's group. But there's also a problem of figuring out whether or not there are codes that you have missed because some groups may be significantly underrepresented in the data, and we're developing some techniques for that as well. But but the point is that that this the qualitative methods themselves also contain imperfections and some of the imperfections in those methods. We actually may need quantitative tools to address. That is to be able to warrant that we have actually the codes that we've chosen kind of adequately represent the different groups in the data.

Crook: Yeah, I feel all this attention to warrants is really important, and it gets very good treatment in the book, I think. I mean, the term the qualitative researchers use a lot, I suppose, is trust in this context. And it always feels to me that at the root of trust when it's talked about in that context is transparency. And that's the mixture. I'm hoping you'll

endorse this. I don't know. But I mean, I think it's a mixture of being transparent about the data you referred to its provenance and so on, but but also transparent in terms of how you engage with that data. And in particular, if you did it in some collaborative way in order to pursue warrant than how you did that collaborative engagement. So I take it, you agree with that. It's that transparency important concept.

Shaffer: Yeah. When I teach qualitative qualitative methods, students do a memo every week and we talk about why memos and reflexivity are so important. And there's always a question about exactly how much of that you represent in the qualitative account, right? Nobody actually wants to read your story of your journey through the research. They want to understand what you learned, and they need to know enough about you to establish trust as opposed to it being kind of ethno narcissism, I think, is the term people sometimes. But yes. Yes. Absolutely not. Yeah. And and you know, I think the way that I think about trust is the same and warrants and all of these things is essentially so I know that, you know, Karl Popper's argument about the nature of science is essentially that you can never prove that something is true. All you can do is try and prove it false and fail. And every time you try and prove it false and fail, it essentially establishes trust. And each of those trials and failings is a warrant. It's something that I did that tests, probes my my understanding and doesn't just confirm it. And so I think of all of these mechanisms as being essentially ways of probing and trying to show that, you know, something is wrong in your account and how you've how you've gone about it. And then every time those trying things don't. Poke a hole in what it is that you're doing that builds your trust in the argument.

Crook: Okay, I'm conscious of the time, David, can I just go back and finish by returning to your relationship with the ethnographic tradition? And I stress that partly doing this because I do want this book to fall into the hands of as many novice researchers as possible and just slightly worried that they will use what they perceive as a neglect of ethnography as a way of not engaging with it. So let's at one point I think I've written this down somewhat. At one point in the book, you say this is a book all about how to use statistics to analyze qualitative data. I think probably that's putting the richness of the book in to compressed a form, but it does seem that leaves you thinking other areas of qualitative analysis where that ambition to use statistics to analyze data will never penetrate. For instance, if you do tie your colours to the mast of ethnography, then where do you stand on the principle of narrative modes of interpretation where statistics

just don't seem to fit? Is that something you would live with or something you would try and take on?

Shaffer: Well, I would take that on, absolutely. I mean, look, so narrative mode of explication is is great. I love narrative. That's partly why I like reading ethnography. It's good storytelling, right? But within within any good storytelling, there are a set of events. I mean, you're not just telling that you literally are not just telling the story. At some point, the ethnographer has to say what the significance of that story is, how it is that they make meaning of it and why anybody would care about that story. And that's the part where they want, where you have to wind up going back to the story and describing the whatever, whatever the key incidents or key events are key concepts and how they're related to one another. And that description is essentially a set of codes and a pattern of relationships. And what that means is I should be able to take that that data, which presumably is more more of the data was collected than just that story. And I can see whether that pattern persists in the data. And essentially, if the pattern it's a way of of seeing whether that one story that that I was told is cherry picking and cherry picked in the data. If you don't care about that, then that's fine. And there are perfectly good reasons to say, Look, I'm not trying to represent this, this village, this culture, I'm just telling you the story of these specific people. That's fine, but the question still becomes, well, how much of that, if you literally are your claim, is only about the exact story that you told. And in order to understand that we're not saying that this happens anywhere else, but this one time that I saw it, then yes, there's no point in using statistics because you've told me everything that's on the table for being analyzed. But as soon as you want to step anywhere beyond that generalizing within the data that you've collected more more broadly, then there's room. There's room for statistics. Essentially, what the statistics are doing is is providing a warrant of theoretical saturation when you're working with qualitative data in a grounded way. One of the things that you need to do is establish for yourself that you have looked at enough of the data that new cases, new instances are not going to change your understanding of the data that you have. Well, that's literally a claim that the pattern that I'm seeing, whatever that pattern is, is is persisting through the data. And the statistical claim is that based on the data that I have, this pattern would persist if hypothetically, I were able to collect more data. That's what the statistics are doing.

Crook: Ok, I mean, that's I'm conscious that there are many powerful concepts in your book that we haven't touched on. Saturation might be one of them in terms of what you just said. Another because we haven't talked about your powerful approach to network modeling. So but then I never intended this conversation to be a kind of compressed version of the book. I'm hoping that it's an advanced organizer for someone to pick up the book and get involved with it, and I'm sure it will. I'm pretty confident it will succeed in that way because it's a very attractive project. So finally, I think it's very impressive what you've achieved here and not only because it is a book that does this work, but there's a whole paraphernalia emerging around it. So, you know, there is a website, of course, there's a learned society. It seems there's an international annual conference. I've seen books of case studies based on this method. So where are you going next? The Journal Maybe. I mean, we're next.

Shaffer: I expect if the conference can you have people there continues to be interest, as shown in the conference and so on, that a journal will come will come eventually. You know, I think that what comes when you when you have ideas and release them into the world, right, when they get picked up, they're no longer entirely your ideas anymore. And the community makes decisions about people interested in making decisions about where to go. So I'm not sure that I can. I can predict that, although I do see my work at this point as both continuing to develop new understandings of how to do this kind of work and supporting the community in the directions that it wants to go. I know that was that was sort of the final word, but I do just want to underscore one final thing as we're talking, as we're sort of closing out, you have more to ask. That's fine. That's fine, which is, you know, the intention of the book was never that somebody would be able to read it and then go and do research. The intention was that to do good qualitative and quantitative ethnography, you actually had to have a good grounding in qualitative methods and a good grounding in quantitative methods. The book, hopefully is an invitation to learn more so that the fact that it doesn't cover ethnography in any detail and certainly doesn't cover statistics in every detail doesn't. That, I think, isn't its intent. Its intent is to be either a provocation to enter into these worlds or a way to pull these put these two worlds together in a more meaningful way than for people who have already studied each one.

Crook: Yeah. Well, I think if it's any reassurance, that's exactly how I understood the book myself and I think if I'm presenting it to other people, it's exactly what I would want

to say about it. But I'm glad that you've reinforced it as you have at the end of this conversation. So that is certainly I've been very grateful for how long you have put up with my engagement, not interrogation. And I'm going to draw it to a close. So thanks very much, David.

Shaffer: Well, thank you. It's been a pleasure, as always, Charles.