Editors: Brian G. Southwell, Karen Keaton Jackson, Bridget Pittman-Blackwell

Measuring
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Talking About Research and Why It Matters

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Prologue

Brian G. Southwell

In 2014, Lackisha Sykes, general manager of public radio station WNCU in Durham, North Carolina, invited me to the studio to talk about the possibility of producing a weekly show for their Sunday evening lineup. As a social scientist, I had appreciated past opportunities to talk with radio show hosts, television reporters, and print journalists about my research. Typically, those conversations happened in the hours immediately preceding a newsroom deadline, however, and were not explorations of the nuances of published papers as much as a chance to offer some brief insight on a recent headline or a sensationalized topic. Sometimes I have been asked to essentially verify what a journalist already has in mind. Such instances put a short-lived spotlight on me as a quoted expert but have not always enriched public understanding, per se. What if we assumed that people would be interested in the actual work researchers do to understand the mundane and nuanced aspects of the social worlds in which we live? Moreover, what if we assumed that people would tune in to hear stories about people asking and answering questions about everyday life, just as they tune in to hear the emotional expressions of musicians like those aired on WNCU's usual jazz and blues lineup during the week? What if we assumed people were generally curious and then asked researchers to talk about their work and experiences and ideas in ways that would fit dinner conversation instead of formal academic presentations? Those questions produced a framework for the show that is the basis of this book.

In 2015, those questions resulted in the first aired episodes of *The Measure of Everyday Life*. Producing a weekly show since then has posed many obstacles and yet also has brought many unexpected joys. A long list of people, in addition to Lackisha, has made the show possible; everyone on that list gave me the gifts of patience and generosity, as I learned how to contribute as a host. In the early days, Kimberley Pierce Cartwright, Alshadera Dawson, and Karla Jimenez willed the show into being, and many people have contributed in the years since. Underwriting support, especially from RTI International, where I have had the privilege of working throughout the

show's run, has been invaluable. What that support and those efforts made possible has been more than the technical broadcast (and later online archiving) of the show: those efforts allowed us to find and invite people to come into the studio or call into our show to explore their work in a way that they often have not had a chance to do in their typical professional lives. We often have moved beyond a quick soundbite — to ask people why they do the work they do and what they do not know yet about their most pressing questions. Getting compelling answers to those questions requires a comfortable conversational space, advance preparation, and a genuine interest in what people have to say.

What I have noticed over time is that our guests generally appreciate the chance to think for a bit of time about what they would like to say, which is one of the reasons we send people some questions for consideration beforehand. Part of why people find it useful to have a moment to consider their answers is that they often are not asked why they do the work they do or about the behind-the-scenes challenges that they face. Academic organizations, like research institutes and universities, sometimes place an emphasis on bold certainty and coherent narrative and publishing as many papers as a person can. Coherence is vital — yet the appearance of certainty at the expense of transparency and honesty is not necessarily a recipe for trust; and so it is understandable why people outside of academic institutions do not always see shared interests and connections with social science researchers. What we have tried to do with the show is to open a space in which people can be vulnerable in talking about the successes and failures of their work, and in so doing demonstrate the typically good intentions behind their efforts.

At the same time, public discourse sometimes lacks direct reference to empirical evidence, deeply considered logic, and a willingness to confront inconvenient truths. Such discourse sometimes suffers from not involving peer-reviewed research. Social science research can be exceptionally useful in informing public policy debates or discussion at the barber shop or a local restaurant or in an exchange between family members. Research that presents evidence in support of, or against, specific hypotheses can be a valuable tool to improve our collective understanding.

Why, then, might it be important for researchers and those involved in research to talk about their work in relatively casual and public settings? One reason is that society can benefit from the work that gets published in

peer-reviewed journals if that evidence can be translated into everyday conversation without losing too much of its original insight. Another reason, though, is that the very practice of talking about your research sensitizes you to the questions that other people might have about why you do your work. That experience of talking out loud about the choices you make and the insights you have chosen to pursue can raise new insights and ideas about what future research questions should be asked. Researchers typically do not live in a vacuum cut off from the effects and influences and needs of the world. Rather than just thinking about broadcasting interviews on a weekend radio show as an effort to reach out to new audiences, we have grown to realize that translational conversations, if earnestly and compassionately pursued, are vitally important as opportunities to listen and consider our neighbors in society. From that perspective, talking about research is one way to build and reinforce ties between researchers and people living in a society in healthy ways that enrich the future efforts of both.

Introduction

Asking Questions as a Basis for Research

Academic research in the twenty-first century happens because of individual curiosity and perseverance, but it also happens because certain grants offer funding, certain journals call for work on various topics, and researchers who have been socialized to spend their nights and weekends writing specially formatted papers ask and answer certain questions. Books that invite people to become researchers and to do research sometimes acknowledge the humanity behind peer-reviewed publications, but they more often take one of two approaches in doing that. Sometimes books will methodically outline a process for conducting research, describing how researchers can investigate a falsifiable hypothesis or how to properly cite research in a references section. Other texts highlight what we might think of as "research in action." In these instances, we can read case studies of work from the origins of research questions to the final presentation of results.

This text is somewhat different.

Rather than being fully didactical, as in a "how-to" text, or fully presentational, as in a text in which we simply show research examples, we blend approaches to share with budding researchers—such as upper-level undergraduate students, graduate students, early-career investigators, or even junior faculty members—stories about how others have chosen and pursued research. Equally as important, we acknowledge that we can share stories about research with a wide range of audiences beyond academic investigators as well. Building trust in academic research in the coming decades requires that people of various backgrounds and circumstances understand how it is that research gets conducted and why it is that researchers pursue the questions they do. By sharing insights about the humans who do social science research and research in a variety of sciences, we hope to bridge gaps between academic inquiry and the communities in which we all live.

Rather than drawing from published research directly, we have assembled excerpts from discussions of research and research topics on the radio. The inspiration for this text is a public radio show and podcast created for WNCU

(90.7 FM in Durham, North Carolina) called *The Measure of Everyday Life*. As public radio in the United States has evolved in the twenty-first century, general managers and producers have found ways to feature a range of topics of potential interest to a range of audiences (Edmond, 2015). *The Measure of Everyday Life* has focused on the premise that academic research can be compelling for people with and without advanced degrees alike. The show first aired in January 2015. From roughly 250 episodes that have aired weekly since 2015, we have selected a small set that comprise a range of insights and ideas about doing research and about ways in which research can inform everyday decision-making regarding crucial societal concerns.

On the weekly show, Brian and the team of *The Measure of Everyday Life* have interviewed a variety of researchers, with "researchers" being defined in the broadest sense possible. In other words, these are not all traditional ivory tower faculty members sharing research that stays confined in research laboratories or college classrooms, per se. Often the featured work is research intended to make our communities and our world better. We hope to show our readers that the idea of "research" need not be overwhelming or intimidating, but it can be relevant and accessible. The researchers featured in this work have approaches that are innovative and interdisciplinary, rooted in an interest in using their talents—which include their research skills—to create and inform substantive meaningful change.

This book features researchers and practitioners from various disciplines and backgrounds. They share how they became involved in their projects, the steps they took to make it all happen, the impacts they have been able to make, and some advice for future researchers.

Our approach is simultaneously academic, professional, and community-based, with all entities inextricably linked to one another. Today more than ever, many of us are feeling the urgency to reflect upon how our individual actions can make a broader impact. The notion of scholars and activists conducting research is not novel, as this has been done for years. But perhaps the need to consider *why* we are conducting our research—beyond satisfying an academic requirement or earning tenure—and how our research is being used and/or disseminated is why this looks different now. Lessons are learned from teaching about the process of research in university settings.

Why do research? Why ask research questions? When these inquiries are posed to students in the classroom, their answers may vary, but generally, they tend to focus on some short-term outcome, such as earning a particular grade or satisfying a program or graduation requirement. The creative act of

asking a research question, however, also is the basis for knowledge reported in academic journals or eventually explored in college classrooms (Dewey, 1954; Weingart, 2010). Knowing how to conduct rigorous research enhances students' critical thinking and bolsters their argumentation skills. Beyond such skill-building, we should dig deeper and truly explore what is gained from a layered perspective when we make inquiries and conduct research. If we trace the general path and purposes of research as it is often used from the undergraduate to the professorial levels, we can begin to glean how research may be perceived and understood (or not understood) by people outside of universities and colleges. What is clear is that true integration of the motivations behind research questions, and the processes of conducting research, often does not happen when "research" is considered at various points in an academic career.

When faculty introduce the notion of research to first-year college students, for example, often it is with these primary purposes in mind:

- How to create sound and effective arguments;

- How to consider audience and purpose;

- How to select the most appropriate medium or mode (whether it be an essay, website, or PowerPoint presentation, for example) for sharing one's research results;

- How to find primary and secondary sources;

- How to analyze sources for credibility; and

- How to document sources properly and avoid plagiarism (perhaps the most favorite topic of many first-year writing professors).

Some of the most well-established and long-existing composition textbooks, such as the *Bedford Guide for College Writers* (2020), first published in 1987, focus on steps of the writing process and categorize sections according to modes of writing, such as narratives, compare and contrast essays, causes and effects, or argumentations. Other newer texts, such as Cochran, Stamper, and Cochran's *An Insider's Guide to Academic Writing* (2016; 2019), create sections according to disciplinary approaches, such as reading and writing in the humanities, the social sciences, the natural sciences, and applied fields. For those of us who are college instructors and professors, many of us would say our goal is to inspire our students to be citizens of the world and use their voices and researchers to make life better for us all. Yet in reality, while these writing topics indeed are critical

conversations and necessary issues to discuss with our undergraduate students, often the discourse stops there—in the classroom. In this sense, research matters only as a classroom exercise. It is important to note that the newer text cited previously (*An Insider's Guide*) does include sections about writing for popular audiences, and both texts cited do include writing samples about social and societal issues related to topics such as crime and justice and global climate change. There is some forward movement beyond traditional approaches to research. In this text, we hope to build on that momentum, so undergraduate learners at all levels opt to move beyond mere considerations for a grade and learn that the research techniques learned in the classroom can serve a real purpose in life.

For graduate students at the master's or doctoral level, research often is synonymous with some type of capstone project or written document—a thesis or a dissertation—that certifies one has obtained a certain level of knowledge about a discipline and has engaged in various research methods accepted as best practices in one's field. In several instances, by this point, the students have selected their own research topics, many of which do have some personal importance and likely some broader real-world implications. In this space, research does begin to have meaning beyond any one assignment, and ideally this research might lead to activity in the public space.

For those who select academia as a career path—particularly those on the tenure track at research or even teaching institutions that require a set amount of scholarship for job security—the idea of research takes on an entirely different meaning. Early in their careers, these professors may sacrifice long-term research ideas that may give more personal satisfaction for those projects that will be seen as acceptable in the academy and count toward tenure, such as a peer-reviewed publication or grant funding from a well-respected institution or foundation. Once tenure is earned, then those same academicians may take advantage of the freedom to indulge in those research projects that may not have as much meaning in the academy, but that may offer substantial personal fulfillment and perhaps may truly benefit people from a wider variety of backgrounds, not just other professionals in the field.

Ideally, we hope this text, *Measuring Everyday Life*, is one that brings those various perspectives and approaches of research together in a single conversation. Perhaps we can challenge those notions of what counts as high-quality research in those various academic stages discussed previously, and how we even reached those present standards of research. Why is it that

for so many first-year writing and undergraduate students, a research project is something to be loathed rather than as a way to spark new ideas? Why is it that many academics feel the need to put their passion projects on hold until after they earn tenure? Why can the academy not embrace more nontraditional and innovative research projects across multiple fields? We believe the researchers, and projects highlighted in this text, show that research projects can simultaneously be both meaningful and rigorous, thus meeting the needs of the academy and wider communities. Research for research's sake may rarely be engaging or exciting. Yet, the researchers and projects highlighted in this text are sure to grab the attention of researchers from all disciplines and at all levels—perhaps inviting all of us to rethink our own ideas of how we define research and why it matters.

How to Use This Book and Notes on Selections and Editing

We have curated a selection of episodes of *The Measure of Everyday Life* that aired between January 2015 and January 2021. Much happened during that time, both around the world and in the United States, where the show has been produced. That period spanned two presidential elections, the eruption of the COVID-19 pandemic, and continued struggles for social justice, among other events. Some of the episodes we have selected reflect this history, but we also have been careful to include a mix of perspectives and researchers and topics that hopefully will be relevant into the foreseeable future. Part of what is compelling about this mix is not only the range of topics that we cover, but also the ways in which certain themes connect various conversations. Throughout the selections, we can note the importance of understanding what questions researchers and research projects address, what the limitations of doing research with human beings can be, and the ways in which future research questions build on past ones. In many of the episodes, we also can find justification for investment in measurement—if a concept or an effect is not measured, we do not have evidence to use it in public discourse when looking at a particular phenomenon.

There are many ways in which graduate students and social science professionals can use this volume, not the least of which is as a set of examples of how one can talk about their research. Early career researchers also can find inspiration for the conduct of research in many of these episodes. Ideas for research sometimes stem from mundane circumstances and personal insecurities, and limitations on the part of researchers sometimes affect the

ways in which research happens. None of the guests for the highlighted episodes would claim to have been perfect in the conduct of their professional lives, and many would attribute their success in answering questions to their willingness to evolve in response to the evidence that they found along the way.

Professionals also can glean from some of these conversations how academic researchers can better contribute to public discourse. These insights are particularly notable in the conversations we have had with media professionals. Veteran journalist Soledad O'Brien, for example, notes the importance of understanding newsroom constraints in one episode in Chapter 10. In a similar conversation on the show not featured in this volume, Public Radio International's Marco Werman once offered direct advice for researchers—be succinct and have a point when talking to journalists (Southwell, 2018).

We also hope that this volume offers printed archival material for readers who are interested in what leading researchers had to say about a variety of topics during the six years covered in this book. We had to make very difficult choices in selecting episodes; most of the episodes that aired from January 2015 through January 2021 do not appear in these pages, and almost all of those episodes that are not included also are full of rich insights and useful material. We wanted to offer a diverse set of topically relevant examples, and we have done that here, but this selection should not suggest a hierarchy in terms of conversation quality. We also should note that we have systematically edited episodes—not within the flow of conversations for the most part, but in terms of omitting introductions, conclusions, and typical breaks for station identification and public service announcements that aired during the original broadcasts. We also occasionally use an ellipsis for material that was inaudible or unclear in the transcription process and have lightly edited some passages; some notes also accompany episodes for clarification.

Readers also may notice that a matrix barcode (or QR code) accompanies each episode passage. That code links to an archived audio recording of the featured episode. Scanning the QR code with a scanner application (e.g., on a mobile phone) will generate a website link to the episode on your device.

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Equity in Health and Well-Being

Rethinking Racial Health Disparities (2020)

Social science research often responds to—and sometimes generates—news headlines. During the COVID-19 pandemic in the United States and around the world, researchers had an opportunity to consider seriously what role their work could play in contributing to our understanding of global challenges. LaShawn Glasgow of RTI International embraced that challenge with an essay she wrote for Health Affairs. *(See Glasgow, 2020, in Suggested Reading). In that piece, LaShawn used a historical lens to make sense of contemporary racial disparities in health outcomes in the United States. Talking with her about her work offered an opportunity to provide context for news headlines, as well as to explore her own journey as a public health researcher.*[1]

Brian Southwell: LaShawn, your essay is relevant for much broader conversations beyond COVID-19, but let's start, for the moment, with the current pandemic and the situation as it has unfolded. What do we currently know about COVID-19 burdens faced by Black Americans, compared with others in the United States?

LaShawn Glasgow: There are lots of data out there. We can look at the website for the Centers for Disease Control and Prevention and there's information available to the public that shows COVID-19 hospitalization rates for Blacks are five times higher than for non-Hispanic whites. As you mentioned, there have also been many pieces and we've seen many headlines, some with data from the CDC and from other places, where we're seeing that Black people are twice as likely to die from the virus compared with white people.

There's also even been some economic research boosting in the headlines as well, pointing out that the number of active Black business owners in the

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[1] Public health research comprises a wide array of activities, including work to describe how many people have certain diseases and what explains those diseases, as well as work to evaluate efforts to improve health and well-being.

United States has dropped by about 40% during this period of COVID-19. That really has the potential to exacerbate economic and wealth gaps, in addition to the health burdens that Blacks are experiencing.

Brian: Yes. It's really much more than a medical story here, and I appreciate that perspective. There's a lot that we can do to describe the current moment. Part of what's really powerful, though, in your *Health Affairs* piece is that you've argued we essentially need to move beyond the descriptive patterns alone to ask questions about how we got here—how we got here historically and what's accounting for some of this disparity. What are some of the most important considerations that we need to keep in mind then, from an explanatory standpoint, going beyond just those numbers, to tell us a larger story?

LaShawn: Sure, yes. There has been a lot of focus—again, in the media and with policymakers' announcements, and so on—that talks about the factors that put many Black Americans at higher risk for COVID-19 illness. I'm sure we've all heard by now—you know that a higher proportion of Black Americans work in the service industry, so that can increase their exposure to COVID-19. There are also higher prevalence rates of chronic diseases and chronic conditions, so that can put Black Americans in a higher risk factor category.

Then, there's also even where racial, ethnic minorities are more likely to live in densely populated areas, and that makes it challenging, because you think of social distancing to curb this spread. A lot of those factors have been raised to help explain the disparities that we're seeing. I think if we step back and look at the big picture, what COVID-19 is making abundantly clear is that with the conditions and the places where we live, where we learn, where we work, and where we play, those conditions in those places affect our health risks and outcomes across our entire lives, and across generations.

That concept is commonly termed "social determinants of health" in the public health field, and social determinants of health include racism and discrimination. I would say one of the most important considerations we need to keep in mind, and as we process the COVID-19 disparities and work to address them, is our country's legacy of the very intentional oppression of Black people.

This, of course, goes back to slavery, racial terrorism, and segregation laws like Jim Crow, but the oppression persists in our current policies and systems. We know that we have issues with residential segregation, documented

unequal treatment in the criminal justice system, documented discrimination in our health-care system, and documented education inequities. I think the link to systemic racism is really the consideration we need to keep top of mind.

Brian: Absolutely, absolutely. There's a lot in terms of the implications of that story that we can discuss. I also want to ask if you have a sense—in your own perspective on this, as to even just thinking about the timeliness of your essay—of the fact that what you're writing about might be news to people in some way? How is it that we haven't explicitly told this narrative as much as we need to and haven't highlighted it as sufficiently in the past?

Of course, it all probably links to some of what you're already talking about, but I just think it's worthwhile talking about that as well. We've told certain stories about the nature of public health for a while, and this is something that probably should have been told much earlier on. What's your sense of that part of the story, and how is it that this is just becoming news now, somehow, in 2020?

LaShawn: I love that question because there's a really long line of researchers and civil rights activists who have been boldly raising these issues for decades. I think the difference is, or maybe the better question is, what's shifting now in terms of how these narratives and these calls for equity are being received? I think, frankly, the trauma of COVID-19 has captured the nation's attention.

We're a captive audience, and we're really actually starting to hear the messages about disparity. On top of that, unfortunately, the nation witnessed George Floyd being murdered by police, and so in some ways, these very traumatic events co-occurring are forcing our eyes open to issues around systemic racism in this country.

Brian: Absolutely. It is the intersection with media events and timing and all that does have an influence, at different points in time. I had the great opportunity to study with Julian Bond at the University of Virginia several years ago, and talking about the history of the Civil Rights Movement, he would always point out that there are great figures at different points, but there also were generations before those points who set various stages, and that sometimes it's a confluence of the right television shot.

At this moment, in terms of the salience of public opinion, that point was one that took a long time to get there. I think similarly here, it's an excellent

point to raise. I'm also interested about the ways in which this type of discussion—and I'm just going to put this bluntly—can get us thinking, for example, about slavery as a public health concern and the ways in which our academic disciplines do and don't broaden sufficiently to bring in these other perspectives. I'm curious—as you think about contributions to public health literature, and when you think about your journals, conferences, and work that's out there, I would imagine you see a role for a historical perspective in that work. Is that fair to say, and do you think people training in public health today really ought to be more ready to account for the geography and history of places? Is that a merger that seems productive going forward, to think about even what the work of public health is?

LaShawn: Yes, absolutely, Brian, I just finished Trevor Noah's book, *Born a Crime,* and he says something in there that hit me so much. I highlighted it, and sometimes I pull favorite quotes and things from what I'm reading, but he said, "In America, the history of racism is taught like this though with slavery, and then there was Jim Crow and then there was Martin Luther King Jr., and now it's done."

Of course, Trevor Noah is just very funny, but this is a real point that's being made here. I think that an accurate way to put it—we need a deep teaching of history in the way it connects to current disparities in not just health, but also income education, and so on. You know, that absolutely has to be a part of the curriculum—as you said, in the public health field, but I would argue at all levels of education and in different fields.

Brian: Right. Now, geography is an interesting teaching tool in that way, and that could really help people to understand that the land that they're standing on, and the place that they're standing on, is the same as it was, 100 or 200 years ago. It's a place where all these things have unfolded, and that can help bring things to fruition and help people realize exactly the legacy that things are built on—otherwise, there's so much abstraction in history sometimes.

We can think about it as being so far removed, but I know it really hit me the first time I realized that with the neighborhood where I lived in Minneapolis, back when those houses were built around 1915 or 1918, they were very likely with deeds that were labeled as "whites-only." Similarly, that can be really helpful to understand and organize.

As public health gets organized around geography, too, that it might be something that would be useful. There's much more that we need to talk about, LaShawn, and I appreciate all this to begin.

Brian: Welcome back to *The Measure of Everyday Life.* Today, we're talking with LaShawn Glasgow about her new piece in *Health Affairs,* which is titled, *Beyond Lip Service: Taking A Genuine Approach to Tackling COVID-19 (And All) Black-White Health Disparities In The United States.* LaShawn, I want to talk about something you laid out in that piece in terms of a potential intervention, but before I do that, actually I want to spend just a minute talking about what seems to be happening and what we know about the everyday conversations that are happening between people as well, because that's often a place where social change can happen or sometimes is constrained.

It strikes me that this kind of conversation can be a difficult and challenging one, and that it may or may not be as explicit as it should be. I'm just curious if you have a sense of both that possibility and what conversations seem to be unfolding, and also ideas about how we might facilitate that everyday conversation. Certainly pieces like your essay helped to do that, but I'm just wondering what your perspective is on that—just from the standpoint of everyday talk between neighbors.

LaShawn: Sure. I think that connection to our fellow humans and compassion for each other are really key for getting us all to a point where we value everyone equally—people who look like us and people who don't. Valuing all lives equally is actually a key tenant of achieving health equity. Tamara Jones has written and spoken a lot about that. The challenge there is partly what you've mentioned—these conversations are difficult, but there's also the real challenge.

We have to acknowledge that this human connection isn't really likely to bubble up organically as we carry out our everyday lives, because this country is still really plagued by residential segregation and segregation in the workplace, and that's an interplay of racial and economic segregation. We could all just close our eyes right now, and if you're in a leadership or management position at work, picture that last management team meeting and how many people looked like you and how many people didn't.

We have to be real about the opportunities in our everyday lives to connect with people and just commit to being more intentional about that, and we're going to have to be intentional about meeting and fully connecting with people outside of our own race—because of the way things are right now in our country, it's not going to happen on its own. We really have to reach out to people intentionally and nurture those relationships. As we nurture real

connections and real relationships with folks, human to human, that opens the door to a safe space to have some of these, you know, what feels like very uncomfortable and difficult conversations.

Brian: That's right. I so appreciate that answer on lots of different levels. Even my earlier reference to neighbors is overly simplistic, because given the patterns of segregation that we have, that's only going to go but so far, so that notion of intentional connection is crucial. Building relationships is crucial. Also, though, those relationships need to be built on more than just the crisis of the moment—otherwise, they're going to be shallow and seen as convenient or even potentially condescending.

There's so much work to be done on that, but it also can be inspirational. It's possible for people to be doing some of this work in everyday life, thinking about who it is that connects you with play dates for your kids, or who it is that you talk with about what's going on at school, or just even efforts to reach out and have those conversations. That's all that's to say—there's a lot of practical, everyday level intervention that actually can happen.

We might also think about this on a grander scale. I think I want to build on the title of your *Health Affairs* essay, in terms of thinking about taking this genuine approach—and thinking about addressing these disparities and what we might do about them. Keeping in mind everything you've already outlined in the first half of the show, what might be done? What are some ideas that comprise a genuine approach to addressing disparities?

LaShawn: Right. As we talked about earlier, it's important that we confront our country's legacy of oppression and how it manifests as systemic racism and discrimination today. That's a really key step, and we have to do that because how we think about and talk about the problem determines how we think about and go about the solution. If we just think about the COVID-19 disparities problem as Black people are hardest hit by COVID-19 because they have other health conditions or they live in places or have the types of jobs that put them at higher risk, our interventions are just launch a communication campaign for Black people and encourage them to do face-coverings, and to distance, or let's make sure we put more resources into increasing testing and contact tracing in communities of color or let's try to offer more support services to the people who are having financial hardship. I want to be really clear—all of those are good and important things. COVID-19 is an urgent health threat. We need to attack it with the testing, contact tracing, face

covering, and additional support—but we can't stop there. We can't put a period there. We really have to confront the cracks and faults in our system and be intentional about fixing them. That means at the big level, we have to create or refine our systems and policies to help ensure everyone can have economic stability and access to quality care, education, and housing.

The big change is going to be policy and system change, but the public health interventions are also important. I would say a key tenet with that is community engagement. If we're working toward the policy and system change, we have to really engage the communities we're trying to uplift and support, so that they can help us define the problem and figure out the best solution, and also help us measure if it's really working.

Brian: That's excellent, and it is so important when you think about the immediate public health crisis. There's what we need to do, perhaps, to try to get cases down in the next two weeks, but then we should also be planning now for the next pandemic or the next situation. That's going to be a matter of relationship building, trust building, overcoming the resource disparities, and then trying to rectify them for what's happening 5 or 10 years from now.

I'm curious here—there are so many different dimensions that we could study academically or empirically. We need more research in this area—not just on what a clever way it is to reach somebody with a communication campaign, but rather how best to work with them as a partner to recruit for future community planning, with all these different dimensions. I'm just curious, from your standpoint, what are some of the key unanswered questions? We know what some of the problems are, so what do we not know sufficiently right now that the researchers could help with, and how is it that research ought to be reshaped to address this concern?

LaShawn: Sure. I think when we see the headline about the COVID-19 disparities, we're often seeing a lot of caveats based on data that's available, which is incomplete. We're raising the issue of ethnicity but not recording it for a certain number of cases. I do think we need the research and tools to strengthen our data infrastructure to make sure that we're collecting the right data to frankly check ourselves and hold ourselves accountable—so that we have enough information about COVID-19 disparities to act and to work toward promoting health equity.

As we move out of the immediate urgent response phase into what you were talking about—standing up infrastructure that will help prepare us

through the next pandemic or the next public health emergency—we need to understand just how to develop better data systems and to get the data that we need to really be able to quantify these disparities. It's also important that we build up our infrastructure for community engagement. No one should be trying to find a community partner right now to be a trusted voice to community members for delivering the messages we need about safety and curbing the spread of COVID-19.

Both partnerships should be in place in two ways—community members and organizations should be at the decision-making table of health departments, and school boards should be informing local, state, and higher-up policy. We also, I think, need better research around how we're dealing with community engagement—how we can be better and what kind of infrastructure we can build to support that.

Brian: Absolutely. There's just a lot of work to be done, a lot that we don't know, and a lot that can be found out. Just one additional question here, LaShawn, and then I've got one last question. A lot of people listening now might be in an early career stage, so they're probably really inspired by what you're saying. What are just a couple of ideas in terms of skills and training that we're going to need from people in the future to contribute here? What can people maybe start working on now to contribute?

LaShawn: Yes, I think we talked about it before—what's learned through an accurate and deep study of history. That's going to be really critical, whether in the public health field or other fields that are interacting with the public. I think a commitment there is important. Also, I keep talking about community engagement, so I think we need some training around how to best do that—how to go into communities and build relationships with them, and how to team with them to tackle these public health issues.

I also sometimes say, "If I had to do it all over again, I might have gone to law school and gotten an MBA instead of first doing everything through the public health training." That's because I really do believe that, ultimately, the real change is going to come through improving policies and systems, because we created the problem with a price that's been unfair policies and systems. We need to be just as intentional about fixing the problem that way.

Brian: That's great. What a great piece of advice. Just a last comment, or really question, for you, LaShawn—if you look at your own professional landscape, do you have a sense of hope that maybe we can move in a direction that will

address some of the challenges you've raised? Are there examples? Are there things that you're pointing to from that standpoint?

LaShawn: Yes. Honestly, I would say I'm in a space that's kind of mixed—a mix of heartache and hope. It's hard. Emotionally, and in every way, it's hard that it took a pandemic. It took the murder of George Floyd, and others, to really open the nation's eyes to these issues. That part is really hard…but ending on a note of hope, hearing policymakers face these issues, seeing these issues in the mainstream media, even seeing the protests and what large and diverse crowds they're drawing—and having neighbors andchurch members and coworkers reaching out and working to understand these issues in a new way—all at the same, give me hope that this time, we'll get much further in terms of drumming up the political and the public field to really strengthen and fix our nation's broken policies and systems, so everyone has the… opportunity to be as healthy as possible. That's my hope.

Brian: You're certainly contributing to that. I want to thank you for taking the time to join us today to share this really crucial perspective. Thank you, LaShawn.

LaShawn: Thank you.

Implications for Researchers

- Assessing and addressing structural[2] aspects of health disparities will require investment in research infrastructure, including the protocols and tools of data collection. Without the necessary data, certain questions about disparities cannot be empirically answered.

- Public health researchers can benefit from an understanding of history and law, which suggests training in both history and law could inform future public health work.

- Health disparities research has become relatively prevalent recently, but evidence suggests disparities have been present in countries like the United States for a long time. We would be mistaken to assume the recent emergence of a research focus on health disparities indicates a new phenomenon.

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[2] Structural factors involve institutions, organizations, or a community, rather than just involving an individual.

Suggested Reading

Glasgow, L. (2020). Beyond lip service: Taking a genuine approach to tackling COVID-19 (and all) black–white health disparities in the United States. *Health Affairs Blog.* https://doi.org/10.1377/hblog20200604.585088

Hammonds, E. M., & Reverby, S. M. (2019). Toward a historically informed analysis of racial health disparities since 1619. *American Journal of Public Health*, *109*(10), 1348–1349. https://doi.org/10.2105/AJPH.2019.305262

The Social Determinants of Organ Transplants (2020)

Researchers have used social science approaches to understanding the outcomes of medical practice in various societies for decades. For example, the journal Social Science & Medicine *has published peer-reviewed work considering the intersection of social science and medicine since the late 1960s. In recent years, medical researchers have recognized the ways in which socially-situated, structural, and institutional forces—forces related to societal patterns and considerations beyond individual differences[3]—can play a role in health outcomes. This episode features a conversation with Ebony Boulware of Duke University about her work to investigate social determinants of organ transplantation.*

Brian Southwell: Organ transplants offer us possibilities that we just simply didn't have years ago. Yet they also highlight progress in a lot of ways that we still need to make. In this first part of our discussion, I want to talk specifically about kidney transplants. This has been an area of work that you've done a lot of research in. Can you explain to our audience why kidney transplants offer this tool for healthcare professionals to consider that we haven't had before?

Ebony Boulware: Sure. First, it's really important to understand what the kidneys do and how they affect our health and the health of our nation. The kidneys are organs that normally everybody has two of. They filter the blood of wastes and toxins, and they help you create urine. They are essential for a living function. Normally, a person's kidneys last a very long time, if that

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[3]   A focus on structural determinants of heart health, for example, emphasizes the importance of factors such as the building materials that make up a person's house, the availability of walking paths, or how much money the people in a person's neighborhood have rather than just the belief a person might have about exercising.

person is reasonably healthy. The people who are at risk of kidney failure would be those with high blood pressure, people with diabetes, or family conditions that are genetically passed down.

When the kidneys do fail, people can no longer live. You basically need to either have dialysis or some way of replacing that kidney function. Somehow the wastes have to be cleared from your blood. Often what happens when the kidneys fail is that people go on dialysis, which is a machine that you sit beside three times a week. Basically, a needle is stuck into your arm and the blood actually has to go through this machine to be filtered, to get rid of the toxins and the wastes.

That's one way of treating kidney failure, and there are several different ways to do this dialysis. The one way that I just talked about is through the blood. There's another way in which you have a catheter inserted into your stomach. It's done a little bit differently, but it's the same concept, this way of doing it clears the blood.

The best way of doing it, however, is to actually have another kidney placed inside your body, to replace the function of the kidneys that failed—and that's kidney transplantation.

Brian: We have these different tools now one of which, the transplantation, seems like it offers new great possibilities. Yet you wrote in the *Journal of American Medical Association* last fall that kidney transplants are underused despite all of the advantages that one might consider. Give us a sense of who is not receiving kidney transplants to the extent that perhaps they could be?

Ebony: First off, it's important to understand that about 30 million adults in the United States have kidney disease. They don't have kidney failure, but they have some form of kidney disease. That means their kidneys are not functioning as well as they normally would. Of those, about 150,000 each year develop kidney failure. At that time, when people develop kidney failure, this means that the kidneys are no longer working and the function needs to be replaced.

People have a number of options for replacing their kidney function, if they choose to replace their kidney function—and most people do. That would be the different forms of dialysis and then a kidney transplant. To get a kidney transplant, you either need to get on the waiting list—there's a waiting list for kidney transplants, with tens of thousands of people waiting for a kidney transplant every year—or you can have a kidney donated to you from somebody who's alive.

The problem really is that, first off, kidney failure does not happen equally in our population. Some groups of people are more likely to develop kidney failure than others. For example, African Americans make up about 13% of the general population. They make up over 35% of the dialysis population. They're four to six times more likely than non-African Americans to develop kidney failure.

Then, at the same time, they're actually more likely to start treatment on dialysis than not dialysis. There's this unevenness or this inequity in the receipt of the kidney transplants. I should say it's a really big deal because with kidney transplants people live a lot longer and they have a better quality of life in terms of feeling better, being able to work, being able to function, and going about their everyday lives.

In the best of all worlds, having a kidney transplant is the optimum treatment for kidney failure. What we're seeing is that groups are, first off, more likely to develop kidney failure and yet less likely to get the optimal treatment.

Brian: It's then a stark situation and one that poses, I think, in the abstract, quite a mystery. What is happening there? One way that researchers have come to understand, or at least describe, the situation and have started to talk about it theoretically is in terms of a phrase that some of our listeners might have heard: —this notion of social determinants of health, social determinants that might actually influence and shape our health.

I want to start with that phrase first and to unpack that a little bit. What do researchers mean by that idea when they talk about social determinants?

Ebony: There's a range of things that influence your health and we tend to think about, "Okay, my family history or my genes or what happened to my parents may happen to me." Those are things we think about as being biological determinants of health. These are things that had to do more with your physical body, more with your biology, things that make you unique that are passed down through your family.

There is also a whole another set of factors that are not biological but are related to the social circumstances or the circumstances in which we live. This can include where you live, how much money you have, how much education you have, and whether you have access or you can get access to the types of healthcare services you need. Can you pay for healthcare services once you get them? Can you afford to pay for your prescriptions? What are the health behaviors that you have or your family has?

What kinds of food do you eat? Do you drink alcohol? Are you using drugs? These kinds of things. What support do you have? If you were to get sick, are their people who would come to your house and help you out or help you get through that? This range of things, which are the non-biological aspects of ourselves that we all have, are what we refer to as the social determinants of health. It has been a lot of research showing that these various things actually do affect health decisions and health behaviors and health outcomes. They're very, very important in terms of influencing our health.

Brian: I want to look at a specific example. I'm in a situation and circumstance where I imagine you found a variety of different factors that are at play. I think there's some really important examples here for this discussion. A while back, you had the opportunity to do some fascinating research, sitting down with roughly 200 African American families, talking about kidney transplantation specifically.

I'm curious if you could characterize what you heard, the types of stories, the types of narratives that might have reflected exactly this idea that we just raised, that might help us understand what seems to be going on in terms of whether some families were getting and taking advantage of this technology, and other situations where it seemed like that was less of an opportunity. What did you hear from families? I know that 200 conversations is a lot, but in trying to summarize that, what did you hear?

Ebony: A lot. First, I think a key theme that has come out of that, among African Americans in particular, is that we find that people often don't even know about kidney transplantation as a treatment option. This is even when they've been in care for a while, that the discussions are not necessarily happening between people who have kidney disease and their doctors about this treatment option, or even within their families.

As I mentioned before if you develop kidney failure and you need a kidney, actually the fastest way to get a kidney replaced is to have somebody who's alive donate their kidney to you, rather than you sit on a waiting list, where the average wait time is three to five years for a kidney, which may or may not match with you. Getting a kidney from somebody who's alive is actually the best way. But when people aren't even having discussions about it, that's a problem.

I would call that a social factor of communication. People often also don't necessarily know the difference. They may say, "Well, I'm okay. I'm going to

go on dialysis. My family member went on dialysis and I'll be fine." But they may not really understand the benefits of the kidney transplant itself. That's a matter of knowledge and understanding. What we found is that when people don't know and don't understand, they don't seek out the treatment. That's another component of it.

We've also had some discussions with people about their lives and the stressors that they're dealing with, and how those get in the way of people considering a kidney transplant. For instance, in some of the discussions we've had with people who have kidney disease, or even the family member helping the person with kidney disease, we hear time and time again that issues like finances are really a concern.

Let's say there was somebody that's living that could donate a kidney, but they're the primary breadwinner for the family, and maybe there are children in the house or there are grandchildren in the house. These are the types of things that really strain a family because the person with the healthy kidney can't necessarily afford to take time off or be absent from the family, whereas the other person with the unhealthy kidneys can't actually contribute as much. That's another component that we've heard a lot about.

Brian: It's such an interesting range of factors to consider there. Just before the break here, I want to ask also about your role in doing this research, because you wear these multiple hats in your career. You're a physician, you're a researcher, and a scholar. When you're talking with patients about these types of considerations, I wonder at what point are you aware of your own sense of what's appropriate, what's a good option? And from a physician's standpoint, when you hear about something like that, can you talk a little bit about the ethical issues—trying to do research with families who may not have heard about an option that you know they need to be aware of. At what point do you disclose and break through—and, I guess, really offer them advice? There's some tension there, right?

Ebony: Well, yes. When you're talking with families, you just try to get their perspective. We're not holding things back. The discussion is really about what do you know about this? What are your perspectives about this? It's not to hold back information or to say, "Oh we can't let them know about transplanting being a better option." We certainly talk about that, but we encourage people to really be open and honest about what are some of the barriers that they're confronting? People have been very honest with us about how they find out about different treatment options.

Often, people are finding out through word of mouth from other people who've had treatments, and they're not hearing it from their healthcare providers. What we try to do, and what I think is really important in the research, is to get the real story.

Brian: It certainly sounds like you're accomplishing that, which is a great contribution.

Now, Ebony, you spend a lot of your time formally as a medical professional and as a researcher. Much of our discussion has been about the social dimensions of life that don't necessarily involve the typical data from biological research, for example.

How did you decide to have your work involve social factors? Was that a challenging decision? Particularly, I think about this just in terms of the sheer demands on your time to fit in patient appointments, to do these other aspects of your work. What did that decision look like? Was it one that evolved over time to really bring this in as a major theme in your work?

Ebony: It's interesting because I think it evolved over time and probably was a result of me just experiencing my own life and then applying some of those thoughts to what I was seeing in clinical care. For example, I realized when I was training there that sometimes you might see the physician team or the medical team speak differently to people with different levels of education, or different races, or different genders—and those things really struck me personally as being very important.

I think I've always been drawn toward work and research that can help draw out these social issues and how they affect our health—it's a really important thing that I'm very passionate about.

Brian: Right. I think we're realizing all the different sectors of life where these factors play a role, and it certainly seems to be the case in public health and medicine as well. I really admire a lot of the work you and your colleagues have done theoretically—conceptually to think about certain basic concepts almost from a philosophical standpoint. This often comes up when people think about measurement. How is it that we can actually capture this particular idea? How can we measure this?

I want to have that discussion. Just thinking about the whole notion of health, I know you've written with your colleagues quite a bit about measurement generally. That's a theme we often like to talk about on this show as well, given our title. When it comes to measuring health, what are we doing right and what do we need to improve going forward?

Ebony: I think it's really important to distinguish between health and sickness. Traditionally in medicine or in public health, a lot of times we've been measuring sickness rather than health. What I mean by that is, we tend to focus on how many people get a heart attack, or how many people develop kidney disease, or how many people develop liver failure, or how many people get cancer?

That focus is on sickness. It's not necessarily a focus on health. Health would be, what's the well-being? How good do people feel on a day-to-day basis? How well are they functioning? Are they able to do the kinds of things they want to do? Do they feel fulfilled in their lives? The two very much tie together related concepts, but they're not necessarily the same concept. I would say we've refined to a great extent our measurement of sickness and illness and we're just now beginning to really delve much more into how do we measure actual health.

Brian: Is it fair to say that one implication is that we might think about health more broadly than just the absence of sickness?

Ebony: Yes, exactly.

Brian: Okay. Once you open that door, there's a lot more we need to capture and measure. As you've advocated for that view, I'm curious professionally what that discussion has been like? A lot of our systems are set up, you think about billing for services, or you think about accounting for certain diseases that come through hospitals, there's some inertia just based on that. What's that professional discussion like? Has there been any tension in that in terms of thinking about a way of defining health and aspiring toward it. As folks might say, "Well, that's nice in the abstract, but it's hard given all these practical considerations."

What's that been like at conferences and other discussions?

Ebony: I'm feeling good about the fact that I'm beginning to see the dialogue shift quite a bit toward health and away from sickness. In the clinical setting, if I'm there in the healthcare setting or in clinic, we're beginning to measure things like, "Does this person have depression or what's their quality of life?" We're beginning to see these kinds of things being measured more regularly in routine interactions with patients.

Then in the research sector, we're definitely beginning to measure well-being and quality of life quite a bit and starting to think about health and

well-being much more as an important outcome, as opposed to some of these more clinical outcomes. You'll even see there's a lot of research being focused on what's called patient-centered outcomes. These are outcomes that people think are actually important, rather than what doctors think are important.

As a good example, I have a study that's ongoing, where we're trying to improve the quality of care people with kidney disease receive as they're progressing toward kidney failure. Actually, in this study, I have patients with kidney disease as co-investigators with me. We're measuring things like, "Okay, well, will our intervention slow the rate of hospitalizations? Will it affect emergency room visits or the rate at which people get transplants?"

Then, we ask people, "Well, what are the things that you think are important?" They said, "Well, you know what, it's actually, how much control I feel I have over the process." They had a totally different type of way of thinking about health, that had nothing to do with these other things. That's a difference again, a shift. We're measuring those things now in our study.

Another thing at the policy level I'm beginning to see a real shift in is the discussion away from more of these medically illness-oriented outcomes and more toward thinking about health and well-being. For example, things like, how well do people feel on a day-to-day basis? How much are we averting or avoiding negative consequences of mental health, like suicide? How much are we even thinking about people's neighborhoods and how they affect people's health?

There's this concept of social cohesion, and that actually being a health determinant. This is like, how well does a neighborhood gel together, work together, advocate for itself—and that actually being a determinant of health. I'm seeing a large shift across the nation in all of these different levels in terms of thinking about health and continuing to focus on illness, but also adding this additional dimension.

Brian: It's really inspiring, and you can imagine ultimately this having an impact too in terms of the way that people think about researchers, and the way they think about healthcare systems. On some level, if you're focusing on outcomes that patients themselves care about, I could imagine that potentially even raising trust between those groups, and that having a really positive outcome, too.

I also want to talk about a disconnect that happens sometimes between academic peer-reviewed research and the practical community-level considerations and discussions that need to happen every day. People will

sometimes point out that there's a lot that gets published, and rightly in terms of building knowledge, but it doesn't necessarily offer immediate action steps, for example, for organizations to take.

When you think about your own work, I think it's been characterized by having a lot of very practical consideration, and I'm just curious to hear your own take on that. What are some of the practical implications and changes that seemed to have stemmed from papers that you and your colleagues have gotten into print over time?

Ebony: Well, fortunately, some of our stuff has turned into practical implications—it doesn't always. Some of my earlier work was really looking at, in terms of this kidney failure example, organ donation practices and why people did not donate their organs. We found that people's mistrust of the system was a really big part of that, and we really advocated for efforts to enhance trust.

That actually was part of a whole movement to really change the way hospitals would ask for donated organs. That's one way that there was a practical influence. There's been a practical influence I think on trying to help people think about the importance of education and discussion with patients about treatments for kidney failure. Now there are a number of efforts to make sure that people with kidney disease know what their treatment options are, and to really ensure that physicians are really talking about those options with patients.

We're seeing that come into the clinical practice guidelines. We're seeing that organizations like the National Kidney Foundation are taking up those opportunities. That's a way that research can get to people.

Brian: I was just thinking about that in terms of the earlier research that we just talked about. One way to potentially misinterpret a stark difference between groups in terms of uptake of kidney transplantation is that it somehow reflects just a preference somehow. What you've pointed out, if it's all a matter of a lack of awareness or a lack of access to information or whatever, that we could see radical shifts and changes in differences just based on getting more information to people in a very practical way. I can imagine that really mattering quite a bit.

Thinking about this, going back though to that peer-reviewed research, we're always looking at the horizon in terms of the next questions. I'm curious about your own sense in this arena as it comes to understanding social

determinants of health, where do we go next? What are some of the unanswered questions in this domain? Whether it's a matter of improved measurement or a study with different populations or any of that—what are some of the research questions you'd like to see people trying to answer in the years to come, and maybe some of our listeners down the line?

Ebony: Great question. I'd love to see us move in a new direction that really focuses on not just how we can intervene in healthcare systems, but what can we do outside of healthcare systems to really improve health. For example, many of the health conditions that we see, and where we see differences in health, they emanate from differences in wealth, just plain and simple. That is a large social problem that we as a society need to deal with. How much inequity in health are we willing to tolerate, because people have vast differences in the amount of resources that they have at their disposal to live.

That's one thing. Education is another thing. Education has been shown time and time again to be associated with health, and access to healthcare, and utilization of healthcare, and good outcomes. But what are we doing outside of healthcare to really fix that issue, because those are the things that determine health. Just a myriad of things along that. I'd also love to see the dialogue shift toward, "How do healthcare systems partner with non-healthcare organizations or policymakers to really help influence that dialogue?"

I'd love to see there be much more dialogue around things like racism, gender inequity, any kind of social factor. These factors do affect our health, and they have a tremendous toll on our nation in terms of just not only our well-being, but also our economy—just every aspect of our nation. I'd love to see the dialogue really, legitimately move outside of looking at these smaller things and looking at the bigger picture of how they affect health.

Brian: That's great. One way of thinking about it then is, we've got issues and dilemmas with schools, with jobs, and you can frame those as medical problems essentially. It's really, I think, inspiring to hear you talk about that, but you can also imagine the way that everybody is trained as an academic researcher, as a professional, as a practitioner. We're socialized into these different areas. We're not used to thinking about—it's changing, but historically things have been siloed somewhat, which has led us to not even consider those factors in different articles.

Ebony: I'd say that's a critical problem that we have, in that how can you help somebody recover from an illness if you don't understand their reality? If I prescribe you a medication for high blood pressure and you can't afford that medication because you need to pay the rent, what am I doing to help your health? You come back in and your blood pressure is uncontrolled. And I say, "Oh, take another medicine because that last one didn't work."

That would be me not connecting. We have this kind of problem in healthcare. We really need to connect to the human experience. That's each of us as members of our society really understanding what influences health and then thinking a little bit differently about that, so that we can begin to address these problems.

Brian: Well, what a great spot to leave it at. We're very lucky to have you in the healthcare system, thinking about and advocating for those views. Thank you for that, and thank you also for taking time out of your extraordinarily busy schedule to sit down with us in the studio today. We really appreciate it. Thank you for being here.

Ebony: Thanks for having me.

Implications for Researchers

- Researchers interested in addressing health outcome disparities should look for answers not only in healthcare systems but also in societal circumstances outside of formal healthcare institutions.

- Changes over time in hospital acquisition of donated organs is one example of how research can inform practice.

- Differences among groups in organ transplant uptake can be misinterpreted and such differences can reflect systematic discrimination rather than individual preferences, per se. This observation underscores how important it is for researchers to approach their work from a theoretical perspective rather than solely letting empirical relationships drive interpretation of data.

Suggested Reading

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Violence in LGBTQ+ Communities (2017)

Social science ideally builds on an existing edifice of knowledge. Critically reviewing past published research can be a crucial step in developing an understanding of this phenomenon. Such review also can help us trace the lineage and development of concepts that humans use to describe people and experiences. This episode explores measurement of violence against people as a function of sexual identity. The Measure of Everyday Life *featured discussions of sexual identity several times during the first six years of its broadcast run. In this episode, Tasseli McKay and Shilpi Misra of RTI International (at the time of the interview) discuss their review of two decades of research on violence affecting people identifying as lesbian, gay, bisexual, transgender, queer, or questioning.*

Brian Southwell: The two of you recently completed a really exhaustive report that included a 20-year review of the scientific literature. You did that along with your coauthor, Christine Linquist. It was really a massive undertaking to look at that much data. You also did firsthand interviews. I want to talk about that. First, I want to talk about just the process of doing a review like this. Shilpi, can you describe for our listeners exactly how you investigated 20 years' worth of empirical and peer-reviewed results?

Shilpi Misra: Absolutely. You're correct. It is no small feat…The review was to summarize evidence of perpetration, victimization consequences, and

reporting of victimization and, in general, issues related to fear and safety. We looked at peer-reviewed literature as well as reports and unpublished gray literature, which is just generally government reports, but we also looked at broader national public health data sets, criminal justice data sets, and other in-house data sets that RTI has collected. I think we'll speak to this later, but we also had some qualitative analysis.

Brian: Part of the process, then, is really just tracking down the papers to begin with. It's not as though you can just go to the shelf and somehow magically pull out a box that has everything you need, but you had to actually develop search terms and look at what was out there. That itself was probably a labor-intensive part of the process.

Shilpi: Absolutely. Also, looking at adults versus youth and risk factors. Generally identifying certain keywords is an iterative process, and it requires feeling out the literature, feeling out what methodology you'd suggest. I think we'll speak to this later, but so much of these data sets don't include such certain language relating to the populations that we're looking at, and in addition, a lot of the research that we're looking at doesn't include some of the identifiable keywords that maybe in 2017 or 2016 are more identifiable, but previously weren't.

Brian: That's a really important observation because sometimes we'll talk in a passing way about the literature, but it's really multiple things and lots of different categories. There are reports, papers in different journals, books, and all of that. Engaging with that in and of itself, you've done a real service in trying to organize that and to look at particular types of studies that were going to be relevant to the questions you wanted to ask.

I want to talk, then, about some of what you found. Here's a really authoritative look at what the literature, as it exists, tells us about these key questions about experience of violence. I want to talk about hate crimes in particular as a place to start. Now, what do we know, Shilpi, about the likelihood of experiencing a hate crime, particularly as we think about some of the different populations in question here?

Shilpi: I think it's critical to have the definition of what we're using as "hate crime." Generally, a hate crime is an offense that is committed against someone—or property, a general organization, or society—that is motivated in whole or in part by a specific bias against race, religion, disability,

ethnicity, and, for our purposes, sexual orientation. It's a myth to think that we've evolved so much that we are without such bias-related crimes. As a result, we looked at some data and analysis in 2016 by the FBI—we looked at the rate of hate crimes against LGBTQ+ populations as higher than that against any other minority group, and almost 20% of single-bias hate crimes, which is a hate crime with one motivation, were motivated based on sexual orientation.

I think that we'll speak to this again later, but I think that it's so difficult to collect data on hate crimes because it's often based on self-reporting, bystander perception, or law enforcement perception. It's incredibly difficult to actually identify these crimes, and then once they're actually written down or reported on, they're often difficult to categorize in such a way that can be labeled "hate crime."

Brian: Well, that's really interesting. It suggests that a very important part of the equation, then, is really at that level of defining, measuring, and deciding what counts here. Tasseli, from a measurement perspective, does it matter then, in your experience, how we define hate crimes in particular, or these other types of acts of violence? What's been the impact in your experience of those decisions? A part of this that I think people sometimes overlook is this really being an important decision that researchers are making.

Tasseli McKay: I think that's a great question, especially as it relates to hate crimes and the interface between members of marginalized communities and law enforcement. For something to make it into the official record as a hate crime, that means a law enforcement officer has to make that determination. We know with regard to many different experiences that people who are in the majority often don't believe people who are in the minority about their experiences of marginalization, because they don't share those experiences. They don't have a frame of reference.

There's a real challenge there, and some interesting work has been done comparing bystander and victim perceptions of the role of bias in criminal incidents with how those incidents are labeled by law enforcement officers. I find a huge disconnect where events seem to victims, to witnesses, and even to members of the general public—to the extent that they make themselves known to us, say, through a news report—blatantly bias-related, and they overwhelmingly don't get coded by law enforcement as hate crimes.

That means when we do research on bias-related victimization, what we find is people are reporting much higher rates of bias-related incidents that would meet the definition of a hate crime than we're finding in the official crime report. Really, there's a huge disconnect there. What it means is that hate crimes are underreported, undercounted, and potentially underprioritized as a social issue.

Brian: That's critically important. It's not just a mundane issue at all. This really speaks to having these crimes counted, and to us as a society to be able to understand when they occur. I appreciate you sensitizing us through that aspect of this. It's really important. We have a few more minutes here before our break. I want to talk about victimization more broadly, Tasseli. What do we know about the likelihood of experience in violence among sexual and gender minorities? Even if we think outside the bounds of a hate crime, per se, what's the broader experience or understanding, based on your review?

Tasseli: I think what our review brings specifically is a broad understanding. It tells us that it's not just that sexual and gender minorities or LGBTQ+ people are more likely to experience hate crimes. It's not just that they're more likely to experience childhood physical and sexual abuse. It's not just that they're more likely to experience adult physical and sexual assault. And it's not just that some members of LGBTQ+ communities are also more likely to experience relationship and dating violence. When you look at these things taken together, I think it offers a really different picture than when we're looking at that research in the siloed way that we typically do.

Research on sexual assault typically happens over in one corner, and research on intimate partner violence is a whole different field. Research on child abuse is also a whole different field. It's interesting, because within each of those bodies of literature—and perhaps this doesn't come as a surprise— what we found in many of these areas was evidence for elevated victimization rates among sexual minorities and suggestive findings on higher potential for victimization among gender minority individuals. Within each of those fields, that finding gets different and siloed explanations. There's this long-standing myth that perhaps child abuse turns people gay. There's not a lot of evidence for that, but if you're just looking in that silo and you see, "oh well, higher rates of childhood, physical, and sexual victimization among LGBTQ+ people who are taking surveys as adults," you could come up with that explanation…As Shilpi noted, this was a massive undertaking as a literature

review. It was really unusually massive compared with the ways that these reviews are typically undertaken, because we were looking across the life course—children, young adults, college-aged folks, middle adults, and older adults—and we're looking across settings and forms of victimization. When we see this strong pattern of sexual and gender minority individuals being victimized at higher rates across settings, across the life course, and across forms of victimization, it really prompts a different thinking about … that victimization.

Brian: Absolutely. Now, that's a really important part of what you all have accomplished here—an integration and a look across literature. I saw Shilpi really nodding her head here when you were talking about that tendency to silo, and that seems like, Shilpi, very much what you probably found in categorizing articles, right?

Shilpi: Absolutely, and even with the qualitative analysis too—also looking across different geographic regions as a really integral part of studying sexual and gender minority. We'll talk about this, but we can't really assume that there's a one-size-fits all scope and perspective in looking at some of these issues…

Brian: In the first half of our show, we talked about this new report, and I'd like to spend just a few minutes talking about why it was written and what the motivations were for doing this work. Of course, there are numerous factors that go into decisions like this, but just from the perspective of the two of you working as researchers, I'm curious about what drew you to this project.

Tasseli, maybe we could start with you. Why did you opt to conduct this project in the first place to review the literature and also to go out and interview people?

Tasseli: Well, we began this work in the summer of 2016, and it followed very closely after the shooting at the Pulse nightclub in Orlando. Also, it was just a time when policy issues—and particularly state legislative issues affecting the lives of LGBTQ+ individuals and communities—were very much in the news and on people's minds in our local communities. In particular, there were real questions about violence and victimization, about public safety, about who gets to feel safe in American society. We wanted to see what the evidence had to tell us about those questions.

Brian: Great. Okay. Then Shilpi, you're also part of this project. Because you did this work, I'm curious to know what your take on that was and some of your motivation in getting involved.

Shilpi: Similar to what Tasseli said earlier, I think it came at a time in which political rhetoric and ideology were certainly fervent. Also, it was looking at research and coming to a place of realizing that as researchers, we have the opportunities to look at anecdotal and political evidence head-on and really justify or reject claims that people or institutions are making. Personally, I just felt that in terms of really understanding what would unfold and what will unfold in the future, it's really integral and critical to look at this and look at public safety—as Tasseli alluded to public safety, who gets to decide what the laws are for populations, and who will be affected by those laws.

Brian: Well, y'all have certainly put together an important and exhaustive report. We talked in the first part of the show about the review that you did with regard to research that's out there. You also though brought some new voices to the table. That, I think, is another compelling part of what you did. You actually spent some time interviewing people. Shilpi, can you talk to our listeners a bit about what approach you took and a little bit about what you found in bringing those new voices to the table?

Shilpi: Absolutely. I should say probably one of my more favorite parts of talking about this is the narrative—who we're talking about, whose lives are most likely to be affected, and those stories need to come out in addition to the research. In collaboration with another group, the HENI group, we sought out to interview gay men, gay women, transgender men, transgender women, and gender nonbinary folks.

Brian: And maybe for our listeners, talk a little bit about many of those categories people are familiar with. Just talk a little bit about who you are actually interviewing.

Shilpi: Specifically, we're doing in-depth interviews and talking in focus groups to lesbian, gay, and bisexual folks, as well as transgender men and women. We sought out the support of the Henne Group in four locations—specifically New York, San Francisco, Wyoming, and the Research Triangle Park. At first glance you might think, "What is the significance of these regions?" As we analyzed what we saw and heard, it really spoke to the hierarchy of safety and how safety is really contingent on one's race, one's

location in terms of rural versus urban, one's perceived gender, and generally how someone presents themselves in the world and that relationship to the location.

In New York and San Francisco, we heard a lot of folks talk about how they felt more able to be who they were in public spaces, and on the other side, there was still a lot of law enforcement scrutiny, so it's the sense of, "I feel more open to be who I am, but I might face potentially more violence." Then, in more rural spaces like Wyoming, the ability to feel safe in terms of being out, being in public spaces, particularly bars and clubs, is just really not an option, in the same way as it isn't elsewhere in other places. It was really looking at how fear is mixed, based upon big cities versus smaller, more rural areas. We analyzed data from about 42 people, so it gave us a pretty good representation of the populations that we were looking at in our literature.

Brian: What strikes me is you point to there certainly being commonalities. There are concerns with discrimination that are faced by everybody who can relate to this report. At the same time, you also point to a diversity of experiences, which I think is really important. We would be remiss to somehow treat all folks who are categorized in our description as being the same in this monolithic group, both in terms of where they live and just the way in which they fit in as the minority and the type of experience that they've had. I think that's a really important point that was probably clear in talking with people of these different backgrounds and different experiences. That's great. That does add a different layer to your report.

Something else, though, that was really striking about your report was, as I said, it really is exhaustive to look at what's out there and also bring some new voices to the table. Part of what was striking was just how incomplete the available literature really seems to be at this stage. One way to view that is as inspirational—that there's a lot of work that needs to be done. Where do we need to go next? Tasseli, I'll bring you into the conversation here, as we think about the next steps in terms of peer-reviewed research. In terms of grant projects and doing this work, for folks who are interested in doing this, where should they turn? What are the questions that still need to be answered?

Tasseli: Well, we really do have our work cut out for us. I don't want to underplay what we do know. I think what we do know is that victimization of LGBTQ+ individuals is a serious and widespread social problem. We know even from some of the work on temporal trends that it's a problem that's not

fixing itself, right? In fact, with regard to some forms of victimization, it seems to be getting worse. That body of research is sufficient to compel action.

With that said, there's so much more we need to know, and particularly so much more we need to know to guide effective action. That's going to take better research methods. There have been really significant advances in conceptualization and measurement of sexual orientation and gender themselves over the 20 years since this field really blossomed in social science research. Just as of the end of 2016, we have some nationally recommended measures—a three-dimensional measure of sexual orientation that creates a complete conceptual picture of a responding individual's sexual orientation in terms of sexual attraction, sexual behavior, and sexual identity, which are really distinct, and they've been measured.

Some studies in the past have measured one out of the three, and another study will measure a different two out of the three, and we're trying to compare those studies, but they may be about different people, because we're not defining sexual orientation the same way. In the same way as this relates to gender, so many prior studies made transgender and gender nonconforming folks invisible, because the standard theory question was, "Are you male or female?" That's what so much of our social science research has done. Even social science research on sexual minority issues has made that mistake with regard to measuring gender. That's a place also where there's a lot of room for improvement. I think we're right at the cusp of those improvements.

We have a really strong two-step gender measurement item that's been recommended by this national working group and so that's a big step forward in terms of research from this point on. I think that the next methodological hurdle that really needs to be crossed over has to do with sampling methods. Overwhelmingly, this field of research has relied on convenience samples.[4] That has to do with two things. First of all, sexual and gender minorities tend to comprise a small proportion of a general population sample. Then, your analyses looking at experiences of sexual and gender minorities don't have a lot of statistical power[5] and that's an issue.

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[4] Samples of respondents can be drawn from a population in a variety of ways, including situations in which everyone in a population has a known chance of being in the sample and those in which researchers invite those who are most available to them, regardless of ensuring that everyone in the underlying population has a known chance of being in the sample. Researchers sometimes call the latter circumstance a convenience sample.

[5] Statistical power refers to the ability to draw justifiable conclusions about the underlying characteristics of a population based on the nature of the sample of respondents drawn from that population.

There have been a lot of violations of trust in prior research in general. Unlike many other marginalized groups, sexual and gender minority people may not want to identify that way, and official data collection efforts may not respond to mainstream general population data collection efforts, so they may be undercounted. For those reasons, these convenience sampling approaches have been heavily used, but they really don't allow us to make comparisons between the experiences of sexual and gender minorities and those of the general population. They don't allow us to establish rigorous rates, and particularly in understanding the experiences of gender minorities, the research is lagging far behind there and really needs to catch up.

We need some kind of sampling innovations so that we can create probability-based samples—that is, we know to whom we can generalize our findings. Our findings are representative of some larger population other than just this little universe of folks who completed our survey. We need to find ways of doing that through potentially social media technology–based oversampling methods, or potentially other sampling approaches that will allow us to achieve high numbers of sexual and gender minorities participating in these research efforts while also being able to generalize our findings.

Brian: You point out a critical observation. There's a real statistical implication for our past tendencies to not include particular groups or have complete measurement. I really appreciate you pointing that out. Then, hopefully, we're able to accomplish new innovations to make sure all those voices are heard and show up in future analyses that your group or others might do.

Tasseli: Yes, RTI is working on those sampling problems as we speak.

Brian: That's great. Well, we're just about out of time, but I want to thank you both for joining us today. I want to thank you for doing the report but also for taking some time to explain it to our listeners. Tasseli, thank you so much for calling in.

Tasseli: Thank you. It's really a pleasure to get to talk with you.

Brian: Excellent, great, and Shilpi, thank you for being here, and welcome to the show again.

Shilpi: Thank you so much.

Implications for Researchers

- Conducting a literature review requires careful decision-making and the availability of resources; high-quality literature reviews do not happen haphazardly or easily.

- Victimization of LGBTQ+ individuals is notable and suggests an ongoing concern for researchers to measure and investigate.

- Convenience samples—in which members of a population do not have an equal or known chance of being in the sample—are prevalent in research on LGBTQ+ individuals, but such samples are limited in offering generalizable insights. We need future work with representative national samples where possible.

Suggested Reading

McKay, T., Lindquist, C. H., & Misra, S. (2019). Understanding (and acting on) 20 years of research on violence and LGBTQ+ communities. *Trauma, Violence and Abuse*, *20*(5), 665–678. https://doi.org/10.1177/15248380177 28708

McKay, T., Misra, S., & Lindquist, C. (2017). *Violence and LGBTQ+ communities: What do we know, and what do we need to know?* https://www.rti.org/sites/default/files/rti_violence_and_lgbtq_communities.pdf. RTI International.

Equity in Transportation and Communication

Segregation and Transportation (2018)

Researchers sometimes look at evidence regarding one aspect of social life to offer insight on larger societal patterns. What can consideration of transportation systems tell us about the way a society is organized, for example? In this episode, Darius Scott of the University of North Carolina at Chapel Hill (at the time of the interview) discusses the history of transportation in the American South and what it reveals about segregation and interactions between people of different racial backgrounds over time.

Brian Southwell: Darius, you spent a fair amount of your time studying roads and paths. Why focus there?

Darius Scott: Well, as mundane as roads are, they are so ubiquitous. They're everywhere and we all have different relationships with roads, given where we live and how we navigate them on a day-to-day basis. I was curious to see what relationships people have with these very mundane, very everyday infrastructure features. I immediately was moved to talk to people to get a sense of that.

Brian: Yes, there are many stories you share and we'll spend some time talking about those. One of the points that you raised is that different people may have different experiences with roads and other entities. As we think about geography, we might also then think about demography and some of the dimensions along which we've seen segregation and discrimination and different experiences. I'm curious to know, from your perspective, what some of those dimensions might be? I can imagine income mattering, for example, the actual cost in dollars of using particular modes of transportation or routes of transportation. What are some other demographic characteristics for which we see differences in transportation patterns?

Darius: Yes, that's a really good question. A lot of African American communities are low-income. So you see some of the same patterns you see with a factor like income in terms of access to public transportation,

well-paved roads, and clean infrastructure. A lot of it is the same. Historically speaking, though, you see how infrastructure development has had an impact on Black communities. In particular, think about something like a highway being placed in the middle of a Black downtown and the impact that had on other people who live there. So, income is one demographic factor.

Another is race—and you see that with the impact of highway development disproportionately affecting Black downtowns. There was this big sweep across the nation in the mid-twentieth century when Black downtowns would often be the site where new highway developments would go. It would just demolish what was left of them. Of course, these were often communities that were already in disrepair and dealt with a lack of recognition and a lack of representation, politically speaking. So this effect of highway building and road development has lots of racially uneven factors. That's just one.

Brian: Yes, we'll often hear about a concept like housing discrimination or conflicts over institutions like marriage, but I wonder how often people think about people's movement as being constrained by societal forces such as racism. Do you think that we tend to insufficiently appreciate transportation as yet another area where we might find discrimination? And when you raise this concern when talking with other people, are there some surprised reactions—"Gosh, we're seeing this even here," in something like transportation?

Darius: Absolutely. I think it's interesting because, on the one hand, everybody will agree that there's uneven development with roads, and by that, I only mean that some roads are better than others, and some people have access to roads, while other people don't. What's interesting is that when you think about how those differences manifest actually, in terms of people, it's surprising to a lot of folks—that, indeed, race matters and income matters in terms of a community's relationship to transportation infrastructure. I think it's very cool to stop and have people have that *Aha* moment when they realize that these potholes and things are really in Black communities more than others. I think that's important to do because we have to recognize that we can't take it for granted. We can't take roads for granted. They're not just as they are, they are shaped by people.

Brian: Yes, and another way we can think about that is to look at roads not just as they exist right now, but also how they were in the past, and how

they've evolved over time. One of the really interesting aspects of your work is your ability to examine these issues historically. For instance, we might see a road where there's some evidence of it having existed at one point in time, but it's now clearly in disrepair. Although it may not seem passable for a vehicle, people still might be using that road, and there's a story behind it. There's a story how that came to be or how a decision was made not to keep it up or to continue using that road for a particular reason. That's part of what your work brings to life.

I want to talk specifically about one of the projects that you've worked on that I think our listeners would be quite interested in —a project called Back Ways. That phrase also has some meaning, right? What are Back Ways and why do they matter to the discussion we're having today?

Darius: In my research, Back Ways are roads in predominantly Black communities in the rural south. These are communities that are historically agricultural, and these are roads that were once wagon roads —so roads that farmers used to take their goods to market. What's also interesting about the Back Ways is that we find that Black communities really establish themselves around these wagon roads. As you could imagine, in an agricultural community, the wagon road, the road on which you took your goods to market, was very important. There are these stories that people can tell about their relationships to the road and its history.

While a lot of these roads were indeed paved and have been swallowed up by the transportation infrastructure system we know today, a lot of them weren't. They were just left to history, and have been so grown-over and reclaimed by nature that they just look like any other forested part of town.

Brian: At the same time, in those instances where there's been a decision to maintain some roads and not others, sometimes people are found using just the remnants of roads, and there's meaning in that, too. I think part of what you and your collaborators have found with the project is that some of the immediate actions that could be taken from a policy perspective or an investment perspective, they don't always result in the outcomes that might have been predicted. And even when there's overt instances of discrimination or a decision not to invest in a road, something interesting occasionally happens with what people do with those roads that are in disrepair. There's this interesting back-and-forth, and people make choices about the road less taken, quite literally, as maybe being a safer space or… Well, tell us more about what you found in that regard.

Darius: Yes, this is very interesting. One of my interviewees celebrated the memories of these rocky roads, where some of them would mess up their cars—literally—like the tires and everything. There is a celebration of self-determination, and also of not having to deal with the government's meddling. For a lot of these communities, development and government interaction have meant harm, pollution, and harassment—so there's a paradox at play where you need the development, but you also can think fondly of not having to deal with the local government in terms of something like a road being developed. What's more is that a lot of times when the roads were eventually developed, it was often linked to something like a landfill being placed in the community.

They would then pave the road because now they can put the landfill there and it accommodates the garbage trucks. It's hard for something like pavement to be looked at fondly, or at least only fondly, when it's linked to those types of processes.

Brian: Part of what you really end up emphasizing then is that there's a multi-faceted nature to development. That on one level a road is an indicator of connection, but also an opportunity for different forces to come in and out of a community. That's not always welcome, right? That there might be forces there that are problematic.

As you think about the projects like the one that you're working on relative to when you started all of this, is your own relationship with infrastructure different than it was? Do you find yourself at intersections and traffic lights thinking differently about the world than you did, or have you become more sensitized to this than you were?

Darius: I would say definitely. I certainly have a lot more respect for, I think, roads than I did before. When you speak to someone, and not even just one person, but a whole community of people who were able to give this history and all these recollections of a quarter-mile roadway, then you really start to look at the roadways you see in rural areas and elsewhere a little differently.

I was just taking a little hike along the Eno River, and there's this trail, I think it's called Buffalo Trail. It used to be a wagonway and now it's just a walkway, a trail. Before it was a wagonway, it was an Indian trail, and before then it was a Buffalo Trail—so you really get to think about the life cycles that these ways have. They certainly do have them.

Brian: Absolutely. It allows us to see all the life that's been lived in these areas and how determinant some of these roads ultimately can be. Just one last

question before we go to break then. With the work that you're doing, is it the case that your references to roads and pathways came up and then you decided that that needed to be explored? Or was there a conscious effort to go in and try to look at the role of roads?

I guess I'm curious from a chicken or egg perspective. To what extent did people surface these themes themselves? Did you hear people talking a lot about this when they talked about their past lives and communities?

Darius: That's a great question. Actually, the project idea was brought to the Southern Oral History Program where I was working with a man named Tom Magnuson, who was a local historian. He talked about going to these genealogy workshops and conferences and hearing people talk about *back ways.*

At the time, they were being called Black roads by our research community, because it was realized to be this racial thing. That's still the case, but I think it's safe to say that this phenomenon and this relationship that people have to roads, especially when the roads themselves have such a long-storied history, as is the case with the back ways, that there is a lot to learn and consider just by talking to people. Everyone has something to say about the roads…

Brian: Darius, I want to spend more time talking about what you found to date, but I also want to spend some time talking about how you do your work. What are some of the methods that you've used in order to learn some of the insights that we talked about in the first half and that you've been working on in your career?

Darius: A normal day in the field for me involves going to someone's home, sitting with them, looking at family photographs, and finally collecting their oral history. When I do that, I basically ask about their entire lives—from childbirth to schooling, first work experiences, marriage, all of that. And of course their relationships to the roads.

Brian: It's really time-intensive work. It's an emotional experience, too, sometimes for you to have. We often will label this as oral history interviewing and that can be a really powerful tool. It's probably not without limitations as well. We've talked about some of the strengths of oral history, but what are some of the weaknesses—or limitations anyway—of using oral history as a way of knowing?

Darius: That's a great question. I would say it's always tricky when you're dealing with individuals' memories. People distort and they have nostalgia and they just forget, especially when you're interviewing someone who's older and you're asking about something as mundane as, How did you get to church when you were a little girl? Or a young man? I think that while memory is one of the greatest strengths, it's also one of the challenges of dealing with oral history. It's certainly a strength because you're forced to focus on the meanings that people ascribe to things rather than the content, the information itself being factual or not. If someone in one house tells a story about the road, and the person in the next house tells a story about the road, and these stories align and match in a certain way, you see how important it is, at the very least, to the community.

That's why I do oral history despite those challenges of memory and forgetting.

Brian: Again, it's probably worth reminding people that you are a scholar of geography, and you might think about facts as they exist in the past in different ways. But on some level you're also studying culture as it exists now, and how it reflects all layers of meaning that people ascribe to roads through that lens.

Darius: Absolutely.

Brian: I'm also interested about an angle to your work. It's very, very compelling, but I also think it's probably challenging from an ethical perspective. Because some of the work you're doing is shedding light on intimate details of people's lives, and instances where they've been safe from harm or been in harm's way or have had maybe something to say about government policy. On some level, the details they're sharing are, at the very least, tied to emotion.

What are some strategies that you use to avoid sharing perhaps too much information about people's everyday patterns in a way that could cause trouble or lead you into areas where you realize you're hearing more than maybe you ought include in a book? What do you think?

Darius: I think transparency is the way to go. When I first ask someone to record an oral history with them I am upfront about where it's going. It's public, or at least it's meant to be public. Of course, you always give as many opportunities as you can for folks to step out. After the recording is done, you

get a consent form signed, and then you make sure they're comfortable with it being public.

Then after the transcript comes out, you send them the transcript, have them read it, and make sure they're comfortable with it being made public—and so they have these opportunities to back out. Of course, there are instances where people want to omit things, which is fine, but we just try to be transparent with oral history.

I think that's really all you can do because you have to let people decide for themselves sometimes. I've definitely had at least one person get the transcript and say, "You distorted my words, this isn't what I said." As far as I know, it was word-for-word transcription. We get an outside person to do it. But you have to respect that because it is someone's story and they are such intimate details.

You just have to be willing to maybe not have an interview go public. It's a fine tangle, I would say.

Brian: Absolutely. You certainly are bringing a sensitivity to it that I'm sure serves you well and the folks you're interviewing well. With all these approaches, you're also at a life stage where you're finishing up a dissertation now, here at UNC, and getting ready for your next steps. We've talked about some related aspects of your work, but I think listeners would probably also be interested to know the main thrust of your dissertation.

What is it that you're bringing to the table here and studying, and what have you pulled away from that experience that you've been in larger lessons?

Darius: A lot of the roads I focus on are ones that were unmapped, or have never been mapped even now. What I look at is how in this unmapped space, or around this unmapped space, Black communities can form and have formed. There's a lot of work that says, marginalized communities form quite literally in the *margins*. I really try to use oral history to see, "Well, how?" and how do people maintain recognition of their community space if they can't rely on something like a map, or government recognition.

That's been the big push, I think. Just what can oral histories tell us about the actual formation—and then characteristics and boundaries—of Black communities.

Brian: Thinking about this, several aspects are really fascinating. One, you quite literally are, in a geographic sense, thinking about marginalization—whereas we tend to think about that more metaphorically. But I also wonder if

there are lessons learned about a community's resilience, or about ways of bonding together in the wake of a larger tragedy or challenge.

Do you find yourself, in an optimistic way, having learned about survival strategies, or community consolidation, or connection that maybe you wouldn't have learned if you hadn't looked in these spaces?

Darius: Yes, I might say relieved more than optimistic. When you see that despite intrusive development, and these shark developers coming into a community trying to scoop up land—despite all of that, when you see a community has maintained its story, and its recognition of self, as being this historic collective for sometimes over hundreds of years, among formerly enslaved communities in this area—when you see that history being negotiated and spoken in these communities by the people who've lived there, I get a sense of relief that all's not lost.

Brian: There is so much in those stories. My wife has done some work with folks in Princeville, North Carolina, one of the communities that has had a long and interesting history. There's a lot that resonates there, just ways that they've found to work around some of the larger challenges, environmentally and otherwise.

As we look to the future, Darius, I'm curious, as geographers think about the margins or, I guess, the forefront of what they're doing or the big next questions, where are today's students needed to head?

Where do they need to look in terms of answering tomorrow's questions, whether it be with regard to transportation or geography as an academic discipline? What are some of the next questions for us to be keeping an eye on?

Darius: That's a great question. I think more oral history. Of course, I'm partial, but I would also say more investigation of narratives and cultural productions within communities, whether it's music or storytelling or art or anything. We really have to, as geographers and others who work around the field, we have to stop focusing on who's not represented, and start focusing on the ways people are representing themselves in their own ways, whether it be something like a family story, or collective art, or whatever it is.

We know that the map doesn't represent everyone. I think the next step would be looking for more marginalized means of space demarcation and mapping that might manifest within communities.

Brian: We say all that right at a moment when different technologies and satellite technologies are making physical space mapping, and there are all

these advances. Yet at the same time, you're pointing out there's an awful lot that's left out of that.

Darius: When we focus on that alone—and those are very important—we fail to realize how, without maps, without government recognition, Black communities have been mapping themselves, so to speak, for years and years and decades, through stories and oral histories. I think we need to do more work to really look at the holistic ways that these things are happening, rather than try to fit them into our dominant means, our maps, as academics.

Brian: There are lots of sources of information about the spaces we live in, that may or may not be in a map that you get in a store or in a library. I really appreciate you bringing all that to the table. I look forward to the next steps in your career and your work, Darius. We really appreciate you taking some time for that. We're just about out of time for our discussion today. I want to thank you for bringing all this to our show, and for joining us today.

Darius: Thank you for having me. It was great.

Implications for Researchers

- Research that draws from one disciplinary area or topical focus can be relevant to other dimensions of inquiry. Where possible researchers can look for ways to contribute to conversations outside of the discipline in which they were trained.

- Although physical space-mapping technology has advanced in recent years, researchers should consider including multiple sources of information other than physical maps to tell a broader story about the area.

- Geographers historically have worried about who is not being represented in various datasets, while at the same time occasionally missing opportunities to assess stories that people tell about themselves. Greater attention to personal narratives could supplement geography research in the future.

Suggested Reading

Scott, D. (2019). Oral history and emplacement in "nowhere at all:" the role of personal and family narratives in rural Black community-building. *Social and Cultural Geography, 20*(8), 1094–1113. https://doi.org/10.1080/1464936 5.2017.1413205

Scott, D. (2020). Intergenerationality, family narratives, and Black geographic space in rural North Carolina. *Gender, Place and Culture*, *27*(7), 984–1006. https://doi.org/10.1080/0966369X.2019.1612854

Racial Disproportionality in Traffic Stops (2016)

Measurement is a vital consideration in social science research. What counts as an example of a particular phenomenon? In the case of analysis to discern potential bias in the behavior of law enforcement officials, one key question is how to determine situations in which a person has opportunities to draw on visual cues related to race versus situations in which such cues are less obvious; such a question suggests ways we can assess potential bias. In this episode, researchers Brian Aagaard and Kevin Strom of RTI International discuss their innovative analysis techniques, which have generated evidence that has been useful for discussions about potential bias in traffic stop behavior.

Brian Southwell:[6] We've seen relatively high-profile journalism claiming racial bias in traffic stops for at least 15 years now. Your team has contended, though, that many previous analyses were limited and that we need to go further to provide better evidence. What exactly has been the problem? Kevin, how would you describe that?

Kevin Strom: Well, one of the main problems we've seen is that many of these previous analyses rely heavily on a census population. They do that to benchmark the driving population. The census estimates demonstrate only where people reside. As a result, they serve as a poor proxy for the actual driving population. The method that we've employed—which is also referred to as the "veil of darkness" method—extends beyond that and tries to improve upon that type of approach by looking exclusively at stops that occur during the inner twilight period, which is either daylight or darkness, over the course of the year. We feel that it improves upon those previous analyses and really provides a more representative view into this particular issue.

Brian Aagaard:[7] Yes, what you're really trying to get at is you're trying to determine what is not only the driving population but the driving population that puts themselves at risk for a stop. In a perfect world, you're comparing

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[6] "Brian S" refers to Brian Southwell in this transcript.
[7] "Brian A" refers to Brian Aagaard in this transcript.

them to themselves, and that's what the veil of darkness method does. The inner twilight period, which Dr. Strom mentioned, is between roughly 5 p.m. and 9 p.m. in Durham. At 5 p.m., in winter, it's dark. At 9 p.m., in June, it's light out. You can compare driving populations during this specific period of time, and it controls for a lot of the issues you have with using census as a benchmark, because you're comparing them to themselves.

As long as you're assuming driving patterns aren't changing based on seasonal influences, you're going to be able to compare the composition of stops that occurred during the light to those during darkness, assuming all other variables are the same. If you see that variable for light as an indicator for a different proportion of race, there are indications of potential bias.

Brian S: Part of what you're trying to do, then, is allow us metaphorically to compare apples to apples, to make sure we are taking away every other factor other than race. In comparing any two instances of a stop—and then looking to see, relatively speaking—is it the case that knowing the race of the person that was stopped tells us something and offers additional information about the likelihood of that stop? Is that fair to say?

Brian A: That's exactly right.

Brian S: I could see how this would be extremely useful relative to the broader conversation that we've had. This is a technique that you seem to have had the chance to apply in several different cities in North Carolina. Brian, what are some of the places where you've worked here in the state?

Brian A: Sure. Kevin can speak to this. Our program works with policing agencies throughout the United States. Here locally, we conducted this veil of darkness analysis at the request of the Durham Police Department. That really set into motion this analysis for us. Before working at RTI and being in North Carolina, I worked for the Syracuse Police Department and the Onondaga Crime Analysis Center, and they put up this same veil of darkness report back in 2009, I believe it was. This was something that I was familiar with.

When the Durham Police Department approached us to do this, this was something we thought we could really use and improve upon. That's what we did to get context for understanding: is this a Durham problem? Is this a North Carolina problem? Is this a nationwide problem? We looked at other cities as well. We used data from the North Carolina State Bureau of Investigation, which by law has collected this since 2000. They've been

collecting all the data for all law enforcement agencies statewide. We looked at cities of similar demographics and socioeconomics. We looked at Greensboro, Raleigh, and also Fayetteville to provide context to this research.

Brian S: Okay. Thinking about the policing circumstances and other aspects of geography and community, for some of these North Carolina cities, help us put that into a broader context, Kevin, in terms of thinking about the rest of the United States. What do we know currently? What is your work starting to suggest about the circumstances here in North Carolina compared with other places?

Kevin: Well, it's important to understand that North Carolina is one of not many states that require these data to be reported from local agencies of a certain size up to the state level. Ideally, it'd be useful to have this information across the United States so that it could be analyzed, and we could compare jurisdictions in an apples-to-apples framework. What we do know is that from the analyses we conducted, disproportionality was found in terms of a racial effect for the Durham Police Department, but we did not find similar effects for these other three cities that Brian mentioned. That's what we can say, with some confidence.

For other places in the United States, there have been similar findings in terms of disproportionality. Those have usually been studies focused on a particular jurisdiction, but we also know that many police departments are struggling with this issue of how to balance enforcement with community relations.

Brian S: Okay. On some level, then, you've suggested a really important aspect of your work, which is that you're helping to contribute to our knowledge in several different contexts. In terms of the situation here and Durham, and in other instances where there has been disproportionality found, I'm wondering if we can put that into common sense language for our listeners—what, then, is an accurate way of understanding what the data suggests? There's a lot that could be read into that, but in common sense language, what do the results suggest? Maybe, Brian?

Brian A: Sure, what the results suggest, with the method being like what we discussed earlier, is that it's an apples-to-apples comparison. This is, again, based on a statistical model—this isn't using the actual population stat, because we want to control for day of the week, time, seasonality, and things like that. What this says is, if you see a higher percentage of a minority

population stopped during the light portion of the inner twilight period compared with the dark period, when officers cannot see the race of the driver, and all of these other variables that we mentioned are taken into account, that is an indication of bias.

Now, with that bias, we don't know what the cause is. We don't know whether it's implicit or explicit, but there's clear evidence that there's some sort of bias—and I think we can touch on this a little bit—and that race is a factor in these stops. What we saw and what we really thought and discovered, as we proceeded with this project, is it's not just a Black versus white issue when we're talking about the type of person who is being subjected to these stops.

In a previous analysis of the veil of darkness, the issue of sex was considered. What we're really looking at here is not Black drivers—we're looking at Black male drivers. We didn't have enough data to really tease this out, but what you could also continue to build on is that we're probably not just talking about Black drivers but young male Black drivers.

Brian S: What's really innovative about that is that you've thought of a way to use light—essentially daylight—as a proxy of an opportunity for potential discrimination or for differences, but an opportunity that is afforded by the fact that you can see the color of one's skin, as simply stated. It's a brilliant way to think about available data but then to offer an opportunity to compare people, as you suggested, with themselves or people under similar circumstances. As you've worked now as a team to develop this approach, you've figured out a methodological approach that could be adopted by other cities around the country.

Kevin, what's been the reaction as you've discussed at least rolling this out in other places? I want to understand here briefly, before the break, some of the reasons people might have for being interested in doing this or not.

Kevin: Certainly, I think one of the things that we found is that this is a high-risk, high-reward analysis for police departments. I really want to credit the Durham Police Department and their leaders for coming forward and saying, "We'd like to do this in a responsible and methodologically rigorous way. We want to know the results and we want to benefit from them, from a learning perspective." They were very open toward then disseminating those results and using them to drive policy in their department. We feel like they have been doing that.

With other departments where the findings are not visible or are not out there in the public, it may be a tougher conversation. It really depends on the mindset of their leadership and how they view you getting out in front of this issue as much as possible.

Brian S: With this word, "disproportionality," Kevin, it's a word that you all use in describing your work, and it's a question that some listeners might have in terms of the decisions to use that language rather than words like "bias" discrimination." Actually, Brian, I think this is something that you could answer directly in terms of thinking about the underlying analysis here. What's driven the opting to use that language?

Brian A: Sure. I think it's two things. I think the first thing is that with these results we're presenting, we're presenting statistical analysis. When we're talking about what this means, we're not talking about specifically describing what we observed. We're running through a model that's controlling for several different variables. When we're saying "disproportionality," we're speaking in a detached sense: "This is this methodological process. These are the results that we got, and the disproportionality is this."

I think the second part of that is because this is such a sensitive topic, it's really important to understand and present it in a way that's not using words that may mean different things to different people. Words like "bias" or "racial profiling" don't mean the same things to everyone. When we were presenting the results that we got, we wanted to make sure we were doing that in a fair and scientific manner.

Brian S: That's great. I think that's extremely important and it's part of what's noteworthy about your work. I want to ask you both to wear a subjective hat here just for a moment. I'm wondering if any of your work has uncovered white-label counterintuitive or surprising evidence. Are there instances where you might have expected disproportionality, for example, based on popular discourse, but you didn't find any? Or were there other results that were at all surprising? Kevin, what do you think about that?

Kevin: I think one of the things that we were surprised about involved gender. Brian mentioned that we did include gender, looking also at the gender of drivers, which is something that hadn't been done before. We found no evidence of racial disproportionality for females in traffic stops. In other words, Black females were not more likely to be stopped during daylight hours. That was somewhat surprising to us. Another finding that I think was

noteworthy was the impact of agency unit assignment. In particular, Black males were overrepresented during daylight hours in the traffic stops conducted by the HEAT unit and also by the patrol unit, but particularly for the HEAT unit, the odds of a male driver being Black were significantly higher during daylight hours compared with during darkness.

Brian S: Can you explain for our listeners, then, the label there? What is the HEAT unit?

Brian A: Sure. The HEAT unit is—and we're talking about the Durham Police Department—the High Enforcement Abatement Team. What they are is a proactive unit. They're described on the agency's website as engaging in crime prevention activities.

Brian S: Great. Okay. That's helpful. What you do not necessarily find here are the same exact results across all of the different units. That points to questions about how departments might use this data, what opportunities there are for improvement, and what opportunities we might see. They're in the future. Really, a question for both of you would be, what are some next steps, and what are some ways in which you've thought about packaging this data into a usable form?

Brian A: Sure. I think one thing, and I just want to frame this for Kevin because he's been doing this for a lot longer than me, but I have never seen in my career a time in American policing where there's a greater demand for transparency. I think we're very sensitive to that. We also have realized that there's a lot of demand for resources for these agencies. We can't expect every agency in the United States to be able to conduct an analysis like we did with the Durham Police Department.

That's why I think it was really important that we created a tool called RTI-STAR that allows any agency with access to traffic stop data to do the same analysis and get a report with similar types of information to what you would see with what we did with Durham, Greensboro, Raleigh, and Fayetteville.

Kevin: It's also true that this is one test of several that an agency could look at to get a better understanding for the activities of their officers and how they impacted the community. This is not to say this particular analysis that we've put forth is a panacea for knowing everything, but it's certainly a starting point. I also think it's important to recognize that Durham was a very willing

partner on this, and it's also good to shine light on the fact that it appeared this issue of disproportionality was improving over time. For the years 2014 and 2015, we found little evidence suggesting Black drivers were overrepresented in traffic stops conducted by the department.

That being said, it's a department taking the information, ingesting it, and saying, "How can we use this? What does this mean? How can we maybe make some changes?" I think that's really what we'd like to see in the terms of action research—not the other side of a "got you" moment and a department being defensive and shying away from the results, but really seeing them as beneficial.

Brian A: That was really hard to see when this report was presented at the Durham Police Department—they said this is a tool that they're going to continue to use in the future. In 2016, at the end of the year, they're going to take a look at their data and make sure they're still maintaining this trend that we were seeing in 2014 and 2015, when this effective disproportionality was not being seen. If that continues, it would be real positive indicator not only for the police department, but I think for the community as well.

Brian S: Absolutely. Brian, we've been talking here at the city level, and you've had a chance professionally to work at various levels of the police organization. Have you seen differences in the potential for disproportionality or other aspects of what we've talked about today between, say, the precinct level or county police officers? Thinking about what's happening with state troopers, do you have any take on the varying levels of police units and how that might fit into our discussion?

Brian A: Sure. Other than the differences in the geographic areas they're responsible for responding to, I think there are a couple of key differences. The first one is policing in a city or an urban environment, you're doing different types of actions. Here in North Carolina, for example, if you're in the North Carolina State Highway Patrol, your responsibility is conducting traffic safety on interstates and highways, which is a very different job function than you would see from a county sheriff or a municipal police officer.

That difference in job function is a major consideration. In addition to that, it's just the composition of the jurisdiction you're policing. There are cities and counties even just statewide across North Carolina that look very, very different from each other, so there are going to be different considerations in those communities.

Brian S: That's really helpful to put all this into context. There's a really diverse set of challenges and contexts and opportunities to look at when we're talking about policing as not just being one monolithic entity. Within the realm of policing and police behavior, there are many different things that officers do. For these reports that we're talking about today, you've chosen to focus on traffic stops as a site for research, which I think is a fascinating choice, and it's one that I'm sure reflects a lot of considered thought, because there are other places where one might look for the possibility of disproportionality.

What's attractive about the traffic stop as a place for research? Is it, for example, the level of discretion that officers have and opting to stop people? Kevin, why choose the traffic stop as a place to focus?

Kevin: Certainly, it shouldn't be the only place to focus, but I think one of the reasons that makes it a logical place to conduct analyses is it's a common form of interaction between the police and the community. In fact, it's probably one of the most common ways that citizens come into interaction with the police. A few direct interactions with the police can also have a tremendous impact on an individual, so it's important to recognize not only the outcome of these stops, but how an officer behaves, which is extremely critical in how the citizen is going to feel about the stop afterward. It's not necessarily whether they get a ticket or not, or what happens. That's important, of course, but an officer's behavior—treating a person with respect and treating a person as another human being—I think is another really important part of this.

Brian S: Great. It's not only useful from a methodological standpoint, but you're looking at a point of interaction with real consequences for future relations as well. That does make it quite compelling. Brian, here's a question for you, and Kevin, you might also have thoughts on this. As you think about this arena of behavior, there are a lot of different topics that one could choose to investigate—so why disproportionality? Why is it that this is a frame for focus that your team has engaged with?

Brian A: I think an area of great interest in policing right now is this question of procedural justice and fairness. It's about how individuals, as Kevin mentioned, are treated by police, and how for many individuals, they're only having maybe two, three, or four interactions with law enforcement in their entire lives. A few bad interactions could have a really profound effect on your perspective on police and policing. To really strengthen the relationship

between the community and policing, it's important to look at that procedural justice.

A huge component of that is looking at how law enforcement is allocated differently in terms of how people are interacting and how much interaction you have with law enforcement—how that can vary by things like race, socioeconomic status, and sex is very important. That's why I think it was interesting for us to start to fold in some of those other variables other than race when we think about traffic stops and explore that interaction with police.

Typically, it's only a question of race and Black versus white, but we really need to start understanding contextually what the other variables are that lead to this disproportional amount of contact with police.

Brian S: Kevin, you've put together a team of researchers who are focused on this and other related topics. What were some of the reasons behind the motivations for thinking about that as a way of organizing work and social science research?

Kevin: I have to give a lot of credit to the folks we work with at RTI. We do have a very effective team that's comprised of people like Brian, former crime analysts, and people who have worked in a variety of different capacities before they came to RTI. We also look to partners in the field to bring on subject matter experts. Some of those folks on the team include Travis Taniguchi, Josh Hendrix, Allison Levin-Rector, and Stephanie Zimmer.

I think probably the largest issue—one of the things we try to do at RTI—is having impactful research and research that matters. I think one of the biggest challenges we have within the law enforcement area right now is—how do you address the willingness and the desire to have crime enforcement and crime control to keep communities safe, but also do that in a balanced way, in which community residents, concerns, and issues around fairness and equity are also taken into account? I'm not sure we've really figured out how to do that the right way, but I think studies like this can hopefully get us closer to that. I think we're moving in the right direction, but there's certainly a long way to go.

Brian S: Great. Just a last question for you both. For those listening to today's discussion who are really drawn to this work and want to contribute themselves—and maybe there are students today who want to

get into this line of work, or maybe early career people who want to do more work in this arena—are there particular skills that are useful for people to develop that might help them to contribute to this conversation? You've talked a lot about how what you've done has added to what's already out there. What are some ways that the next generation of researchers could get ready for that?

Kevin: I think one of the first things is to be curious and ask questions, and that's what we're seeing more and more of with the young folks today, but it's also about having the skills and the tool set that come with being a good researcher. I think folks with those things packaged together are the types of folks we're looking for, quite frankly.

Brian S: Great. Brian, it certainly seems like taking as much in terms of quantitative data analysis as possible can be useful in one's career.

Brian A: Yes. With pretty much every course you look at in your course catalog that you don't want to take that's related to the real heavy lifting for statistics, you should probably consider them a little harder.

Brian S: It's certainly leading to some really important work here, and we're seeing ways in which statistics matter. I want to thank you both for being part of this discussion today. Kevin, thank you so much for sitting down with us.

Kevin: Thank you. It's been a pleasure.

Brian S: Brian, I know you've been really busy with doing all this work, so taking some time out of that to sit down with us is something I really appreciate. Thank you for being in the studio today.

Brian A: Yes, I think it was great conversation. Thank you.

Implications for Researchers

- Generating evidence to test hypotheses can be a matter of both creativity and quantitative measurement.
- Measurement development ideally requires both consideration of face validity—that is, whether a measure seems to capture the essence of a concept's definition—as well as additional empirical validation effort to ensure that the measure can predict other variables or distinguish between seemingly similar variables.

Suggested Reading

Taniguchi, T., Hendrix, J., Aagaard, B., Strom, K., Levin-Rector, A., & Zimmer, S. (2016). *Exploring racial disproportionality in traffic stops conducted by the Durham Police Department.* https://www.rti.org/ publication/exploring-racial-disproportionality-traffic-stops-conducted-durham-police-department/fulltext.pdf. RTI International.

Disability and the Internet (2015)

Social science can illuminate aspects of everyday life that people might otherwise take for granted. Many people in the United States and around the globe regularly interact with computers connected to the internet, and such interaction has not been equally easy or useful for all people. On this episode, we talk with Tori Ekstrand of the University of North Carolina at Chapel Hill and Amy Helburn of RTI International at the time of the interview. Each has done research on the encounters of people with disabilities and electronic information systems.

Brian Southwell: Central to the [Americans with Disabilities Act] ADA is its definition of a "place of a public accommodation." Such a place can include a private business like a restaurant, and it can also be a public place like a school or a park. As Tori has written recently, however, there's an important conceptual space that has yet to be fully defined in the law—that's the internet. A couple of cases are winding through the court system that are putting a spotlight on the internet as a place that is potentially eligible for ADA consideration, and this opens up a really interesting opportunity for definition of key concepts and for our discussion today. We want to start there. Tori, can you explain for us what's currently in the courts, and what the forecast looks like for resolution of these cases?

Tori Ekstrand: Probably it would help just to focus, I think, on the one case most of us are really following at the moment. It's a case involving Netflix in the District Court of Massachusetts, where a plaintiff who is blind is seeking audio descriptions and other accommodations from Netflix to be able to enjoy what we all enjoy, but it has often been difficult for those with disabilities to enjoy it on Netflix.

That case has now moved to the discovery phase just this week, meaning that the court is going to begin and the plaintiffs, and defendants in the case

are going to begin learning all the facts about what's happened—what Netflix has or hasn't done and what the plaintiff in the case claims is the problem. About two months ago, the judge in this particular case denied Netflix's motion to dismiss the case. He said there is a real claim in the case related to this idea of "place of public accommodation," and that it does matter for the court to consider whether the internet is a place that should accommodate the disabled. That's at the district court level. There are some circuit court cases that have differing opinions about whether the internet is a place of public accommodation or not, and we can talk about that, but the Massachusetts case is the one that a lot of us are watching right now.

Brian: It's a great introduction, and it raises this question, then, that people may not have stopped to think about, which is essentially, where does Netflix occur, if you will? Where are those engagements actually happening? Are they happening in a physically comparable space to these other situations that we've talked about previously? Just the very definition of "place" itself is really conceptually fascinating. It's a challenge that lots of social scientists face not just in the legal domain, but in other types of work. There's a really interesting connection there that we might think about.

I also think, though, that there are some other concepts at play, and I think it's probably important for us to explore them together as people try to get their hands around what it means to accommodate, work with, and serve people with disabilities. For example, when we talk about participation in public life, or enjoyment, can we ask questions about what even counts as participation or enjoyment? Again, here I think it's useful to turn to our legal scholar to talk about this. Tori, how might we define concepts like that related specifically to participation?

Tori: I think even for lawyers, there's the legal answer here and then there's the practical answer—what we see. If you talk to disability activists in this area, they will tell you, as we all know, so much of our life has moved online. To the extent that our life has moved online, the argument is now this base too should be a place of public accommodation. In terms of your questions, specifically about what it means to participate, I think when the ADA was first passed, even President George H.W Bush, who signed it, was pretty clear in his statements about how the ADA would ensure people with disabilities are given the basic guarantees for which they have worked so long and hard. He said that included independence, freedom of choice, control of their lives,

and the opportunity to blend fully and equally into the rich mosaic of the American mainstream.

To me, that signals right away what at least the president at that time thought was participation when he signed this law. In the ADA itself, the statute says that the law should invoke the sweep of congressional authority, meaning Congress has wide room here to invoke the ADA—including, it says, the power to enforce the 14th Amendment and to regulate commerce to address the major areas of discrimination faced day to day by people with disabilities. Both Bush's comments at the time the ADA was passed and the ADA itself really seemed to define, for me, "participation" pretty broadly and to include spaces like the internet.

Brian: You might think about more highfalutin concepts in terms of formal participation in a civic sphere, but we also are thinking about things that are maybe a bit more mundane. That's really helpful in a way to getting our hands around this. Amy, I actually want to turn to you to help us talk about a different definition, but it's one that's really fundamental. It's just the basic concept of "disability," because some people might be surprised to know that even "disability" is actually not extensively defined in the ADA. I suspect this has been challenging for researchers as well. Amy, how have definitions of disability been handled or addressed by social scientists?

Amy Helburn: This is certainly true. There are different definitions in different fields, whether it be a legal definition or a medical definition, but I think it's largely attributable to the diversity of disabilities. A person who's characterized as disabled may have a physical disability, a mental health–related disability, a cognitive disability, or some combination of those three things. Some people with disabilities have been disabled their whole lives, while others have acquired a disability at some point in their life. People with disabilities can be old or young, and there's the issue of whether it's self-defined or a label imposed by others. These related issues certainly span across research disciplines.

Brian: What I really like about your answer is you point out that it's not fair for us to think about this as a monolithic entity, but rather there's diversity within the world of disability, and that's critical for us to really keep an eye on. Tori, you've done a lot of work on electronic media. I'm wondering, are there categories of disability you think have been overlooked given that perspective?

Tori: I think it's interesting because if you look historically at activism within the disability community, much of that has focused on what we might consider related to media—the core disabilities of loss of hearing or sight. With the internet, it's interesting to go back and consider, like Amy said, that there are so many of these other disabilities that come into play besides just hearing and seeing or lack thereof, and so the cognitive disabilities for me are really fascinating to think about in an online context.

There is a young woman in the New York area. She a 13-year-old nonspeaking autistic young woman, and she is using the internet in a most amazing way to post her thoughts, poetry, and blogs. To me, that's sort of an area of disability in relation to media that we need to be thinking more about—not that we shouldn't be thinking about the blind communities or deaf communities, but we have the other growing communities of the disabled going online and really making their presence known.

Brian: It's fascinating to think about the ways in which some of these conversations about participation in public life are being pushed and challenged by virtue of these new technologies. That's a really important part of your perspective, Tori. Now, Amy, you've done research with policymakers, particularly up in Massachusetts where we're talking to you from today. I greatly appreciate that work, because it's really difficult to interview such people.

In doing that, you've asked policymakers what they think about certain key concepts, so I want to end the first part of our show with one additional notion, and that's the concept of community inclusion. It has turned out to be critical from a law and policy perspective, but I also think there's room here to think about a range of different ways that people might be included. Amy, what have you found in terms of those discussions as to what some of the different perspectives are on the notion of community inclusion? What does that mean for policymakers, and does it always mean the same thing?

Amy: Certainly not [chuckles]. Community inclusion exists on a continuum, and it ranges from total inclusion to partial inclusion—which might also have been thought of as accommodation—to what some call segregation, and then to full institutionalization. People live their lives and move along this continuum in one direction or the other. It's largely been conceptualized as an issue of physical access, which is why this topic on your show today is so interesting. It's been about bringing people into these physical spaces that

were historically segregated—such as schools and state programs—bringing them out of sheltered workshops, and bringing them into the public arena, as you mentioned.

Inclusion involves issues of equal rights, dignity, and respect, but there are pros and cons, because who gets to determine what is ideal? Say, for a young person leaving a specialized program who struggles with social isolation or is dependent on a personal care assistant, what does independence and inclusion really look like, and who gets to determine what's ideal?

Brian: Great. In a lot of ways we can see connections here. We'll talk about that in the second half of this show with other aspects of civil rights struggles and the notion of, literally, physical segregation, but then there are also other ways in which people have been invited to or accommodated in public life, or not. I want to talk a little bit more about what might be done to meet particular needs, and the notion of accommodation—we'll get to some other concepts in the second half of the show.

Brian: Welcome back to *The Measure of Everyday Life*. Today we're spending time with two researchers, each of whom has helped us to understand disability as a public policy concern. Tori Ekstrand is a medical law scholar at the University of North Carolina at Chapel Hill, and Amy Helburn is a researcher and public policy expert at RTI International. Now, in the first part of the show, you both did a wonderful job of helping us to understand some of these fundamental concepts. One that we didn't quite get to, but that's also important here, is just the basic notion of accommodation. That's an idea I think is really important for people to understand. Tori, what has the law typically said about what counts in terms of accommodation? For example, do we mean opportunity for employment, or do we have to keep track of actual employment? What do the courts and the law typically say about that?

Tori: I think both are what the law would care about. In strictly legal terms, we talk about a reasonable accommodation, and we talk about the fact that the accommodation doesn't place an undue burden—that's the legal term— on the facility or the place that's trying to do the accommodating. Accommodation touches multiple areas. When I explain this to people, I say, "One way to think about it is, say, getting an accommodation at a restaurant. There's maybe a door that's wide enough for a wheelchair user to get through, but then there isn't a table to accommodate the wheelchair height. The opportunity for a dinner is there, but the actual dinner probably isn't going to

be served." The ADA really is designed to protect both the opportunity to go to the restaurant to have dinner and the chance to actually have the dinner.

Brian: That's great. It points out that there are often really multiple steps to be accounted for, and that research in terms of understanding the policy effects of these different examples would probably need to make sure we are looking at whether certain events have occurred and all of that. It's a multifaceted notion, so that's actually helpful for our discussion.

In the second half, there are a couple of additional things that I'd like to do. Really, all of these are connected, because I want to put all of this into context for our listeners. I want to turn our attention to the society within which these debates occur, but I also want to talk about this as a research area for each of you. I'd like to put this work into a personal context, which is something that we often do in this show.

Each of you is an accomplished researcher, and your work includes a lot more than just the work you've done on today's topic—the stories of how a legal scholar and a public policy analyst each were drawn to think about issues like accommodation and disability. Undoubtedly, that's going to be of interest to our listeners just on its own, so I want to start there briefly. Tori, we'll start with you. Why develop a research agenda involving people with disabilities?

Tori: I guess there are three reasons, and I'll try to be brief about them. First is that we all know friends and family with disabilities. I have these folks in my family, and I'd like them to be able to have the kind of access they need, particularly online. For me, it's also really inspiring to watch disabled communities talk, interact, and organize online. I think the second reason is because the likelihood of all of us actually having a disability at some point, I think, is higher than a lot of us would admit.

The National Council on Disability reports that about 64% of wage earners think they have a 2% chance of acquiring a disability, when in reality, it's more like a 25% chance. The point is, it could be you or me. I think the last part for me is, because I'm interested in media law, is the idea of access. The First Amendment is very concerned with the idea of access to information, and to me, that's a basic normative civil rights argument.

Brian: Those are all excellent reasons. One notion that you raised is one that I want to come back to maybe, in the latter part of our discussion—just this basic idea that disability is something that can be acquired. As a result,

I think that might set it apart as a topic for discussion. We'll get back to that notion in just a bit. Amy, first though, how about you? What drew you to work on disability? I know you've done a lot of work on issues of inequity. Generally, how does this relate to all of that?

Amy: Certainly, I've been interested in socioeconomic determinants of health disparities, and a lot of my research is focused on that. More specifically, I've always been very interested in health issues that are stigmatized in the United States and our culture, and certainly I think disability is one of those health issues. As Tori was saying, a lot of people think they're immune to the risk of acquiring a disability themselves, which I think is largely based on fear and also the associated stigmatization accompanying that. Additionally, being in public policy, I'm interested in the ways that social risk and protection have been handled in the United States, with so many of our benefits attached to employment. This is certainly a trend that we've seen with respect to disability public policies in recent decades.

Brian: Great, and actually that offers us an opportunity to also put this whole issue into a broader context, in terms of thinking about disparities and differences between groups. Let's consider, just for a second, the disadvantage of disability in terms of employment status. What do we know, Amy, in terms of the extent to which those types of disparities exist involving people with disabilities, relative to other groups?

Amy: Well, again, it's an issue of both physical access and being able to access the technology, with computers and through the internet. In our qualitative research that we did with both policymakers and alumni of a school for young people with disabilities, we found that orientation, guidance, and technological support—and using computers—were critical for so many things. They were critical for education, training, paid employment, volunteer employment, and social engagement.

   There are a lot of misconceptions out there, both on the part of employers as well as on the part of disabled individuals themselves, that serve as barriers to employment. Many disabled individuals fear losing their benefits or health insurance, which is often an unfounded fear. Just returning to the overarching theme of this program, I think legislation and lawsuits have been critical in prohibiting discrimination and advancing greater inclusion of disabled individuals in the workplace, and also not only in places that prepare

them for the workplace—such as schools—but in places that get them to the workplace, like public transit.

Brian: Well, what's great about that last part of what you said is that it really points the way toward one of the paths to change that we've seen happen in history over time. In this particular case, you point out a legal mechanism whereby we've seen change enacted and encouraged, so let's talk about history for a bit. We've all ridden the roller coaster over the past six or seven years, in terms of the economic recession in the United States. Do we know, for example, Amy, whether the people with disabilities are disproportionately affected by those types of instances of financial stress?

Amy: Well, in times of a healthier economy, one sees the advancement of initiatives like Social Security's Ticket to Work Program, and virtual job fairs that are aimed at disabled workers, but yes, certainly workers requiring accommodation in the workplace are going to be more vulnerable. For those who work part time, either by choice or through health limitations, they're twice as vulnerable.

Brian: Okay, so it's useful to keep in mind a particular reason to think about this work. There's another aspect of history, Tori, that comes to mind for me, and that is, I'm thinking about the progression of law in the United States, and how it might look in this arena compared with civil rights legislation in the 1960s, for example, and other issues that have emerged over the last 10 or 15 years. Has there been a similar development in the logic and debate over time for disabilities, as there was previously, for example, for race, or maybe as we're seeing unfold now regarding sexual orientation? How does this story line up to those other areas of civil rights work?

Tori: I think if you talk to people with disabilities, they would tell you they are, indeed, a social movement, just like the ones you've described. I would say that there are some differences between those movements that I've observed just researching this recently. I think with members of the disabled communities that we study and talk about, the membership in those communities changes a lot. People come into disability, many of them often late in life, and it can be harder for them to participate in the conversation.

   Having a disability makes it harder, sometimes from the start, to be heard. The disability itself can make it easy for others to ignore those with disabilities. I have a friend with a prosthetic leg, and we have been trying to

engage the town of Chapel Hill in some discussions about an advisory council therein. She has good days and she has bad days, so we have to work around that in our activism.

The promising part, though—and the thing I'm really excited about—is watching the internet. It's not that the internet solves everything—it does not—but it's interesting to see people talking, organizing, and supporting each other across disabilities in the social media spaces. That, to me, has been a really fascinating area to watch and consider in terms of a movement.

Brian: That's an interesting connection, back even to the initial part of our discussion, about how in some ways, the internet has introduced a complication and challenges, but at the same time, there also are affordances, or possibilities for organizing a movement, that seem to have been the case, too. It's not just one thing. It's not as though we're going to suggest that the internet somehow has been bad in this case, but there are probably multiple ways to think about it. It's really interesting.

As we wrap up our discussion today, we could spend a lot of time talking about these various issues. I really appreciate all of the effort that you put into explaining a lot of this for our listeners. I want to keep an eye on the future, though, a bit. We're always interested in thinking about the future of social science research on this show. I think we've got this great opportunity to ask each of you what you think that work should look like in terms of future research questions. Tori, I'll start first just with you. What's an example of a great question that we have yet to answer, but that you're hoping we see an answer to in the next 5 or 10 years?

Tori: I suppose for me, most recently, it's about why aren't we making web accessibility for disabled communities a priority. What exactly is holding us back in a way that didn't hold us back in 1990? That's the part I would like to uncover more, and I have calls into the Department of Justice to ask them a little bit more about why they're delaying rulemaking on some of these issues.

Brian: Excellent. It's a great question for researchers to be asking about how the policy process works. Amy, any additional thoughts from you as to what social science could contribute to future policy debate on disability?

Amy: Sure, just a few brief ones. In addition, there's always the need for greater funding for academic and applied policy research around this topic area. I think we need to apply the lessons we've learned in health disparities,

and we need to bring the diverse disabled community to the table. There is a disability activism slogan: "nothing about us without us." We've seen how valuable it is to bring more women and people of diverse ethnicities to the table to do research on health disparities, and we really should be doing the same among individuals with disabilities.

Brian: Great. Well, that's a nice place to stop, I think. I want to thank you both so much for sharing your ideas, as we consider this 25th anniversary of the ADA and as we look forward. Thanks a lot for being here, Tori.

Tori: Thank you for having me.

Brian: Excellent, and Amy, I appreciate the chance to talk with you from Massachusetts. Thanks so much for calling in.

Amy: Likewise, Brian, thank you.

Implications for Researchers

- The question of whether the internet should accommodate all people has animated legal scholars and social scientists, and the question of how the internet can accommodate people will remain an important topic for future research.

- Future research regarding the challenges facing people with disabilities will benefit from greater inclusion of researchers and research participants with disabilities.

- Researchers can distinguish between physical access to the internet and the ability to productively use and engage content online. Making such a distinction opens crucial questions that would be missed if we only considered physical access to the internet.

Suggested Reading

Duplaga, M. (2017). Digital divide among people with disabilities: Analysis of data from a nationwide study for determinants of Internet use and activities performed online. *PLOS ONE*, *12*(6), e0179825. https://doi.org/10.1371/journal.pone.0179825

Ekstrand, T. S. (2015). Should Netflix be accessible to the deaf? *The Atlantic*. https://www.theatlantic.com/technology/archive/2015/04/does-the-ada-apply-to-online-spaces-too/390654/.

On Being Asian American (2018)

Popular culture sometimes refers to identity labels such as "Asian American" without explicit context regarding the development and origin of the phrase over time. How is it that the label came to be, and how has it changed? How could it change in the future? On this episode, we talk with Jennifer Ho, who taught at the University of North Carolina at Chapel Hill at the time of our discussion. The episode offered a chance for the show to draw in perspectives from the humanities; Dr. Ho taught at the Department of English & Comparative Literature at the time of our interview. Much of our discussion connected historical evidence to social theory in ways that are relevant for a range of academic researchers.

Brian Southwell: I'd like to start our discussion with an immediate complication. Your book, *Racial Ambiguity in Asian American Culture*, is wide-ranging. There are lots of different examples that you talked about. In one of your opening chapters, though, you explore a 1940s US policy involving marriage between people of different racial backgrounds. There are a couple different aspects of that example that are compelling for our discussion. First, it highlights the fact that if we explore racial identity, we need to do that in a way that allows for the possibility of people who claim mixed racial identity or multiple racial identities.

Second, it also points out this back-and-forth and intersection with government policy, and other societal forces. I want to talk about that first point for a moment. I think there are probably lots of examples of ways in which there's ambiguity associated with the notion of being Asian American. It's not so easy to sort of cleanly and clearly delineate people as just being in that category, even though we often want to do that. We find lots of examples, and as you listen to people talk about themselves or talk about labels, is that sense of ambiguity and conflict a constant theme for you? What have you found?

Jennifer Ho: First of all, Asian American, as a term, is relatively new. It is a term that was only coined in the late 1960s. In 1968, to actually be precise, it emerged out of the political movements that were happening on the West Coast. At San Francisco State and at UC Berkeley, Asian American students who were often referred to as oriental were coming together and uniting around social justice and human rights issues—particularly the Vietnam War and the modern Civil Rights Movements. While we oftentimes think of the

models of the Civil Rights Movement as a Black issue—that this was about Black and franchise men, especially in the US South and on the West Coast—there was a little bit of a different picture in terms of a large Chicano population and Mexican Americans who were fighting for recognition. You do have the American Indian Movement and people of Asian descent who were also starting to wake up to their own racialized identities.

At San Francisco State and UC Berkeley, you had students of Asian descent, largely born in the United States, who were starting to understand themselves as not being white or Black—so, what were they, exactly? Two graduate students coined the term "Asian American" as a way to recognize a panethnic solidarity that people of Asian descent had with one another in this shared racial category. That's a really important history to understand about this one term that we now think of mostly as a census term—you check off "Asian American" on a box to describe what your parentage is, and what your heritage is.

For me, that term is really a term of solidarity—political solidarity and racial solidarity—and a term that was born out of social justice. I start there because that's how I think of myself when I think about what it means to be Asian American. It's not simply that I'm checking off a box because my parents are originally from China, although I will say that isn't really true when it comes to my mom. When I talk about myself as the child of Chinese immigrant parents, what I leave out, because it's complicated to give your entire family story, is that my mother is an immigrant from Jamaica. She was born and raised in Kingston and speaks Patois.

Of course, when I say my mother is from Kingston, Jamaica, people make a certain assumption about her racial identity. They assume she's Black because they assume people from Jamaica are all Black without recognizing that Jamaica is a multiracial state. Going back to the original example that you gave related to my book, there's the chapter that talks about that 1940s policy—this was when we understood race to be a matter of national origin. You would talk about Chinese, Japanese, or Filipino as a race. You could be in a mixed marriage if you had a Filipino husband and a Japanese wife—even though in today's world we would say that's an interracial marriage between two people we would assume to be Asian American.

Brian: There's so much in that, if you think about this reference to the national categories and some of the political reasons for why that has been one way of characterizing people. Now, we've seen that evolve somewhat and in ways that

are complicated. As you've worked as a scholar in this arena, I think some of the resources that you've drawn on are artifacts of popular culture as places where you can see how we're talking about or depicting ourselves.

Clearly, we see a reference to this notion of multiple racial identities—or typically, in the United States, for example, have we tended to see advertising that assumes more monolithic categories? What's your sense of that band in terms of exploring 100 years or so of depictions of this as a category?

Jennifer: One of the things I think happens is, we think of Asian Americans and we think mostly about people of East Asian descent—people who are coming, in terms of ancestral origins, from China, Japan, and Korea. Sometimes—again, because histories are complex—that might mean somebody who looks Chinese, but they're actually from the Philippines. He's from Vietnam or has Vietnamese ancestry, but he actually also has Chinese heritage. By and large, I would say our conception of someone who's Asian American is someone who's East Asian American.

I want to start there, because I think, well, what we are seeing a rise of in popular culture are South Asian Americans. I'm thinking, especially in the world of comedy, people like Hassan Minaj and Aziz Ansari are people who are getting a mainstream presence and who are being seen—Hari Kondabolu, in avenues on television and movies, and Aziz Ansari has won an award. There was, of course, the other fallout from Aziz Ansari that has recently come to the fore in terms of the Me Too movement. South Asians are Asian Americans, South Asian Americans, Indian Americans, Pakistani Americans, and Bangladeshi Americans, but in our common conception of Asian Americans, we oftentimes leave them out.

With the Mindy Kalings of the world and *The Mindy Project*, there is increased visibility of Asian Americans, but whether people recognize them as part of this Asian American monolith is a question mark.

Brian: We go back to your earlier point in thinking about whether this is from a social justice or political perspective, then—is that consequential? Does there need to be more of an effort to put a panethnic label across all of that? Could that be helpful, or is that multiplicity in a different way useful? What's your sense of the tension there? Might we see that become something that feature advertisers or others might start to address or advocates might worry about? What's the consequence of this newly helpfully stage that's been populated by more people?

Jennifer: I go back and forth about this because I'm an English professor. Of course, words matter. Words matter immensely to me. At the same time, concepts are also important. If we get ourselves tripped up too much in terminology, we can sometimes lose sight of the underlying concepts and values. I'll give you an example: I prefer to be referred to as Asian American rather than Asian, but I don't know that it behooves me to constantly correct people who might refer to me as Asian versus Asian American, so it's part of the calculation I have to make around language.

What matters to me is somebody who understands that I seem to not have any trace of a foreign accent, whatever that word might connote, and that I have every right to be occupying space in the United States—that my citizenship status shouldn't be called into question based on the fact that I optically have an Asian face. Yet, it continually happens that I'm asked where I'm from, or I'm asked about my citizenship status, or I'm complimented on my English.

All of that makes me feel like the person looking at me, interacting with me, or talking to me doesn't understand that I have a right to be occupying space in the United States. Whether I'm called Asian American or Asian in that regard doesn't really matter, because the underlying assumption is that somehow, Asian Americans are less valid people in terms of their right to be part of the US citizenry and part of the American fabric. I also don't say that to be jingoistic or xenophobic. All of this is really complicated in terms of our current immigration and naturalization policies.

Brian: What it helps us to do is to move beyond thinking about this as a measurement or a census issue, but to recognize all the different points of connection. Something else that I think is really fascinating about your perspective is to think about aspects. As we think about popular culture, we might think in terms of a scene in a movie or a song, but you've even turned to something like food as being really powerful and important. As it turns out, your own sense of identity is connected to food in different ways.

Jennifer: Absolutely, yes. My first book was on representations of food in Asian American coming-of-age novels. It really started, as all of my research does, with something very personal, which was how I could understand myself to be Jamaican, because I don't look Jamaican to most people. I technically don't have Jamaican citizenship. I wasn't born in Jamaica. I don't speak Patois. The markers of what might culturally or socially connect me to

Jamaica aren't readily apparent, but I feel Jamaican because I have Jamaican family, and because I eat Jamaican food—I mean, I could keep going on.

Brian: No, it matters. We think about how there's the abstract category, but then there's all of the markers, places, and points of evidence that we might have in terms of how people are forming their own sense of identity as well—how that complicates some of the broader categories that get used…

You regularly teach in this arena. How have you found that experience of teaching? I'm curious—what has surprised you in your interactions with students? Is racial identity something that students are even eager to discuss or not? What has that part of your life been like, in writing what you do and teaching in this way?

Jennifer: Students always want to talk about race, and I think we are under the impression in society at large that there is too much discussion about race. Another misconception is that talking about race is the same as talking about racism or being racist. Students are then nervous to talk about race, but the truth is, they really want to talk about this. They've been thinking about it. They've been having discussions with others about it. A class I usually teach every fall is called Mixed Race America. In that class, the main goal is to have productive conversations about race.

We do it together as a class, but one of their assignments is actually to have a 10-minute conversation with someone they wouldn't normally talk to about race. I'm clear with them that this this isn't about riding on the bus and interviewing a stranger. This also isn't about having an argument with someone to trying to convince them of something. It's really just a benign way of starting a conversation to talk about a topic related to race.

The other thing I'm really clear about is that race includes everyone. The way in which we have synonymously linked race with the nonwhite is something that I really try hard to disabuse students of in all of my classes. In every class that I teach—whether it's in Asian American literature class or a class on race in the United States and American literature—I'm always telling students, "It's okay to talk about race." We don't want to offend people, but it's something we all think about.

Brian: It's something that's relevant to all of us. We can all be characterized that way, and it gives us all a sense of identity. I think that's great. Jennifer, actually I want to connect the listeners to a conversation we were having at the break a little bit. I think it's related—this idea, as you've argued in your

book, that we also might sometimes see certain themes, writing, or work that's being characterized or associated with a particular racial identity. Then, the question of authorship comes up in terms of who is eligible to present that.

I think this is something that you found to be a bit of a potentially contested point there. Talk to us a bit more about your sense of who can contribute to this larger discussion and present race in different ways.

Jennifer: I think we talk a lot about authenticity, even if we don't use that word—people want to feel that they are getting an authentic experience. With students, when they walk into my Asian American literature classroom, they probably look at me and think, "Oh, there's an Asian American woman or an Asian woman, and she is qualified to teach me because of her Asian-ness." And that is partly true.

I do have experience as a racialized nonwhite person of Asian descent in the United States, but my credentials to be in front of the classroom and talk about race have everything to do with what I've read, my PhD, and the fact that I have been writing about this subject for over a decade. I could be a white man thinking about these things related to Asian American life, and I would still have the credentials.

I know that if I were a white man and I walked into my classroom for my Asian American Women's Writing class, the students would look at me and say, "Are you really the one who's going to be teaching us about Asian American women?" I think what that says is there's a desire not just for authenticity, but also for representation. I don't take that lightly. In other words, I think it would be easy to dismiss the desire that students might have to see me as an authentic representation, because what they also want are more bodies of nonwhite faculty in the classroom.

They also want to feel that I am using my personal experiences and knowledge as a way to validate, in the case of Asian American–identifying students, what they may also be experiencing. It's a way to say, "Yes, my lived reality counts, and it's being reflected in the works on a college syllabus." That's a very powerful thing, but I'm always interested in the gray. I'm always interested in the things that may or may not line up neatly or fit into boxes.

When I teach Asian American Women's Writing, part of the syllabus is a novel called *The Foreign Student* by Susan Choi, who is a mixed-race, white Korean author. It's a historical novel set in Suwanee in the late 1950s, and it doesn't feature a single Asian American female character. I ask my students

after we've read it, "Should this belong on our syllabus? Are we making the claim for it solely based on half of Susan Choi's Korean identity, because we can't point to the novel and say that it's telling us anything about Asian American women?"

Brian: How do you answer that question? You've done it provocatively by putting it on the syllabus, so what's your sense of whether that belongs in a canon or on the syllabus?

Jennifer: I don't mean to give a dodge, but it belongs on my syllabus because I want students to think about these issues.

Brian: [laughs] That's fair.

Jennifer: If I were writing a book about Asian American women's literature, would I include *The Foreign Student*? I wouldn't include *The Foreign Student* because by dint of its content, it doesn't tell me anything about Asian American women's lives.

Brian: There's so much in that. Just a quick last question, Jennifer, as we think about the future of your work, both at the institute where you're associate director and beyond. In your teaching and writing, what are some of the provocative next questions that we need to be thinking about to carry us forward?

Jennifer: I guess for any budding scholars out there, I would love for us all to think about how we can really substantively combat racial inequality. In other words, how do we solve the problem of racism, and how do we really solve that together? It's everyone's issue, regardless of what your racial identity is. In particular, for Asian Americans, I want us to be part of the conversation, and so often, Asian Americans have been left out of the conversation about racial inequality.

Brian: Great. All right. Well, it's certainly a large and important theme to end on. I think that your work helps to get us further down the road in dealing with that. Jennifer, thank you so much for taking time. I know it's hard sometimes to talk about long books in a short conversation. You've done a great job of illustrating some of these themes. Thank you for being here today, and thank you for coming to the show.

Jennifer: This has been fun. Thanks for having me.

Implications for Researchers

- The concept of being "Asian American" is relatively new and reflects a historical evolution in thinking.

- Research on racial inequalities could include greater emphasis on the experiences of Asian Americans than has been included in many journals and university curricula.

Suggested Reading

Ho, J. (2005). *Consumption and identity in Asian American coming-of-age novels*. Routledge Press.

Ho, J. (2015). *Racial ambiguity in Asian American culture*. Rutgers University Press.

Discourse About Science and Health

Metaphors and How We Understand Time, Space, and Science (2018)

Metaphors add richness to our everyday conversations with other people. They also can help us understand abstract concepts that we typically cannot see physically without assistance. As Kaplan (2000) has written, even the symbol for zero might be thought of as a representation of an abstract concept of nothingness. Can metaphors also shape how we think about basic concepts? This episode features Rose Hendricks of FrameWorks Institute (at the time of the discussion). She has investigated how metaphors can affect our understanding.

Brian Southwell: Your work is really wide-ranging. You investigate how we think about the world, especially in terms of language and symbols as tools for comprehension. I'd like to start our discussion with a very potentially abstract notion, and yet it's also something we're experiencing right now as we talk. I'd like to talk about how we understand time and space. Maybe we can talk first about just even that phrase, "time and space."

We've had to put those words together to help us understand a dimension that actually seems to potentially be a single fabric in a sense. Yet even me trying to describe it as a fabric probably isn't wholly accurate. Rose, how would you describe time and space, and how does it matter that we grasp it as metaphors and try to understand concepts like that?

Rose Hendricks: This is something, as you said, we experience constantly. We're moving through space, and we're experiencing time unfolding. Yet we don't often stop to reflect about what those concepts are.

Space is the one that we can experience a lot more tangibly firsthand. We know what different spatial distances look like. We know how it feels to move through space, but time on the other hand is a little bit harder to experience directly. Time is what many people refer to as abstract. We can't see it, and we can't touch it, even though we may have experiences and we know how it feels

when time is unfolding. Time is really something that's made up by humans, whereas space is a true feature of our world.

As with many abstract ideas, we tend to use the concrete one, which in this case is space, to think and talk about the more abstract one—time. That helps us make sense of that abstract idea. With time, we talk about moving a meeting forward, and that really means for most of us to push it to later. But we're not actually moving the meeting—the meeting is not something that can be moved where we're shifting it in time or we look back on the past, but again, we're not literally looking backward thinking about the past as behind us. Really, space is that way into thinking about time for us.

Brian: In some ways, then, we've seen that married in our own language as we've tried to understand what it is we're experiencing. This has been constant in the human experience—just hurdling through time and space. Yet it also seems from your work, and work that you've reviewed, that the people around the world may vary a bit in the metaphors that they use to actually represent or understand space and time. If so, what are the implications of that as we think about intercultural communication, for example?

Rose: It's a great question. For sure, we do know that across the world and in different languages and different cultures, people map different parts of space onto time. But in English, we talk about the future as "ahead" and the past as "behind." In Aymara, which is a language spoken in South America, that's actually reversed. The past is something that's known and in front of us, and the future is behind us because we can't see it. That's just one example of how you can take the same space but map different parts of time onto it.

Brian: That's fascinating, because it implies an understanding of even just knowledge. It's framing time as to what's known or unknown. With the forward orientation that we have, in the United States for example, maybe there's a bias toward assuming that there's some degree of forecasting we can do—I don't know. It's interesting to think about how that relates to just our broader understanding of the world.

Admittedly, we started our conversation with a fairly abstract idea, and I appreciate your patience with that question, Rose, to ground us in some of those examples. Let's talk about something that's maybe a bit more concrete for some of our listeners. You've helped us, through your work, begin to understand how metaphors shape even something like disease—cancer for

example. Maybe we can tell our listeners a bit about your understanding of how metaphors help us understand a disease?

Rose: Sure. It occurred to me a few years ago, actually—when a few people I'm close to had been diagnosed with cancer—that the language felt really inconsistent with the experiences we were having. What I mean is how dominant it is to talk about battling cancer and fighting the disease and encouraging people to basically keep on with it. That just didn't feel right to me.

I started looking through the literature and realized that many others had also had this feeling where they were saying, "What are we fighting?" Does that place this burden on patients to encourage them to fight? With some collaborators, we actually looked into this, where we compared how people think about someone who has cancer if they had just heard about that person as battling the disease, as opposed to as someone on a journey with the disease. Often, people encourage others to use this journey metaphor instead of what they consider a more harmful battle metaphor.

We did find that if they had heard about the journey they were more likely to think this person had a chance of making peace with the situation and were less likely to feel guilt if they didn't recover—that how I should have done something else that I didn't do. In this context, at least, it seems that journey was able to help people get to a place of a more productive and self-forgiving mindset than the battle did.

Brian: It's not only for the person going through it directly, but it's also for their support network, family, and friends. We often leave that out of the equations, and talking about this, I'm interested to know, then, if you think that popular metaphor might even affect the imaginations of researchers who are looking for ways to reduce cancer incidence? Is it conceivable that some of the popular discussion might somehow affect the hypotheses that are raised or the ways the researchers do their work?

Rose: Yes, it's certainly possible. Of course, I'm only speculating here, but it seems like there are two possibilities. One is, of course, the actual biological research and whether researchers are more inclined to look for therapies that are fighting a tumor rather than—I'm not even sure about what the alternatives would be. That may, of course, be a good thing. I am absolutely no expert in the biology of cancer, but it does make you wonder if that seeps into their research.

Another interesting set of studies around this has looked at whether metaphors affect individuals—whether people are inclined to take behaviors that will then help reduce their chances of getting cancer. This is work by Dave Hauser and Norbert Schwarz, and they really found that those fighting metaphors made people less likely to engage in some prevention behaviors—things like limiting their alcohol and sodium intake and smoking. That's because fighting and limiting certain behaviors just really aren't consistent with each other. It seemed that that metaphor was kind of deemphasizing a lot of behaviors that are actually important for prevention.

Brian: Rose, I'm curious here…You talk about these different examples, and, unfortunately, how some of that you're drawing from examples in your own life. I'm interested in how, as a cognitive scientist, you got interested in these whole notions of comprehension, understanding, and language to begin with? Where did that story start for you?

Rose: It's a great question that I often ask myself. I think I have always had a very deep love for language—just for the sake of language itself. Another deep love I have is for humans and figuring out what's going on inside. When I discovered this research field, that really allowed me to merge them and learn more about humans by looking at the language they use and how they understand it—that was really revolutionary for me.

Brian: It sounds like it certainly has been a journey for you, too, in terms of recognizing that. There are also a lot of practical implications, then, of these realizations that you and your colleagues have had. I want to get to those in the second half of the show, as far as ways in which we might talk about how a shift in what's often referred to as framing—or the way that we label or understand certain issues—might actually have direct and public policy consequences as well. We can talk about that. I also, Rose, want to talk about some of the efforts you've made to train scientists, in terms of their engagement with the world…

Brian: Now I want to shift our discussion, Rose, to reflect on some other aspects of science. In the first part of our show, we talked about aspects of science that really relate to physics and astronomy. In other ways, we might understand your biology, but we also might think about social science and human interaction in a sense. I want to call attention to what I recently found to be a really compelling blog post of yours.

That draws on what we know in terms of academic research but applies it to thinking about the present moment in different ways and thinking about interactions between people. In that blog post, you actually reflect on the ways that we talk about dating and desire. You've argued that we actually should probably change the metaphors we use to talk about human courtship. I want to leave you space to maybe make the argument that you're making there, and I want to talk about that. Why is it that we might need to change just the very language that we use in talking about how humans interact, in a romantic sense or in other ways?

Rose: Yes, right. Of course, it's a really big issue in our society right now. It's unfortunate that it is an issue, but it's fortunate that it's becoming really important in our collective consciousness right now that there's too much harassment and assault and these kinds of things between people. Of course, there are many reasons why that's going on in society. One of those reasons I think has to do with how we talk about it.

I have to credit this line of thought to some really compelling research by Jarrod Bock and Melissa Burkley, who really looked at some of the language we use. They refer to it, and I think it's apt, as "predator–prey" language. For example, we might talk about someone being "on the chase" when they're courting someone else, or maybe "on the prowl" when they're looking for someone.

In their work, they specifically had men as their participants. It's important to note that it's not exclusively an issue of men preying on women, but that is what seems to be the largest issue at the moment. They had men read sort of predator–prey language embedded in a story about some kind of dating or courtship situation.

Then, they had other men read about the same situation but without that language. Then, after they had read, everyone raised their agreement with different statements that reflected their beliefs about assault, rape, and things like that. They found those who had read that predator–prey language actually held more beliefs that would perpetuate rape. These are things like agreeing with the idea that women who are drunk or dressed very provocatively were asking for it, or it's not rape if someone doesn't fight back, or women often lie about being raped.

Like I said, those beliefs were much stronger in men who had encountered these metaphors that talked about predators and prey than those who hadn't.

This suggests that this pattern in language is fostering some really harmful beliefs and in turn belief behaviors.

Brian: Right. There might, then, be a path forward, where we could start to talk about these things differently. In terms of the mechanism through which those stories have effect, I wonder if there's some possibility. It could be outright persuasion or introducing new ideas. It could also be, in some instances, making salient, preexisting stereotypes or ideas. It's not always a matter of operating on a blank slate, but sometimes, language can be a trigger or can make ideas salient as well. Right?

Rose: For sure. It's very unlikely that when those participants read that language, they said to themselves, "Oh, hey, here's a new idea. I could prey on someone." I think there's the mechanism—one potential explanation for why that language did that is that language, and especially metaphor, often encourages us to actually mentally simulate what we're reading. A simple example of that is if we read about grasping an idea, our brain goes through some of the same activity that it would go through when we physically grasp an object. You could imagine when we encounter this predator–prey language, we're actually conjuring up images in our mind about predator and prey, even if that's not at a conscious level.

Brian: That's a fascinating aspect of this. It really does suggest there's more weight or gravity to some of these word choices. I'm interested, Rose, as you talk about this in public forums and with colleagues and others. Just to play devil's advocate here for a second, is it conceivable that this type of approach puts too much emphasis on language when there are other factors? Does that critique come up—not just on this example but sort of in general—that maybe we're assigning too much power or authority to frames and metaphors when, in fact, there are other explanations? What's your sense of that?

Rose: Yes. I think certainly that's a risk, although most often, it's probably that language is undervalued in these kinds of cases. Certainly, we shouldn't ignore the fact that patterns and language do emerge from cultural understandings and behaviors. When we see people acting like predators, we may then describe them as that even if we didn't already have that in mind. Certainly, the underlying norms and behaviors are absolutely crucial in this case.

Brian: There's a prominent researcher and theorist, George Lakoff, who talks about the importance of labels and words in politics. Sometimes the issue is raised that it's just too easy to assume we can just shift and use the different word. I think you're pointing out a really sophisticated way of understanding that some of this might arise from our understanding of reality, but that doesn't mean we can't find more creative ways to talk about it or encourage each other to talk and think about this in different ways.

As we think about public discourse then, Rose, how might we actually begin to change public discourse on this topic? Do we need intervention in schools? Intervention with journalists? If we were to make some of the changes, for example, that you're recommending, as we think about human interactions, where would we do that? How do we do that? I'm just interested what ideas you might have for future efforts?

Rose: It's a really tricky question, but a really important one. I think there's this almost cyclical nature where our behaviors and norms shape our language, and then our language shapes our behaviors. It seems to me that we really want to intervene in both of those areas. We want to attack it from all fronts. I agree, schools may be a great place to do it. Media maybe is also a wonderful way to do it—to talk about relationships differently. We need to teach people to think differently and in fundamental ways, in many cases.

I think one other area that could be really helpful is to make sure what younger people and even adults are seeing—whether that's on television or in other media—is healthy relationships. They're not seeing predator–prey relationships [laughs] unfolding in front of them and hearing that language simultaneously. They're seeing that that's not how it should work.

Brian: Yes, that is really helpful to think about that way. We have to reduce the prevalence of the actual problematic behavior in addition to talking about it. As we think about science broadly, I think part of the challenge in public understanding of science might lie with scientists themselves, in some ways too, with their engagement with the public arena. You've been an organizer of something known as—the short name is ComSciCon. I'd like to talk with our listeners about that. In fact, there's a connection between our show and that organization, because we've sponsored one of their chapters here in the Research Triangle Park area of North Carolina. Rose, what is ComSciCon, and how might it help?

Rose: ComSciCon is a shortened version of the Communicating Science Conference. This is a workshop series designed by graduate students for graduate students. The first ComSciCon Flagship Workshop took place in 2013. Since then, we've had a workshop that has drawn students from around the United States, and most recently also Canada, each year, but there are also several franchises—as you mentioned, one in Research Triangle Park.

Each workshop is different, but they have general components—things including panels on topics like diversity, encouraging diversity, and inclusion in science. There are also things like journal, science journalism, nuts and bolts of science communication, various media, and communicating difficult topics… [T]he workshops also have something we call a "write-a-thon," where attendees get to actually hone some written piece, or maybe it's a script, for a radio show or a YouTube video and get feedback from experts. We have a lot of hands-on workshops where people can practice their elevator pitches or their one-minute talk about their research. Each workshop is unique, because a team of graduate students on the ground are the ones deciding who we want to invite in terms of other experts, and what components we think are the most important ones.

Brian: That sounds a really compelling effort helping to recognize that some scientific results aren't going to just automatically appear. So, this is a public event using ways to helpfully frame results. It could be that there are ways in which scientists can contribute and be part of those larger discussions, because they are experts in so many ways. We also mentioned your employer, FrameWorks Institute, earlier in the show. I'd like to put a spotlight on that organization as well. How are you and your colleagues helping us make progress in popular understanding of science and policy?

Rose: As you mentioned, I am a researcher at the FrameWorks Institute, and we're a communications research think tank. We're social scientists, and our main job is to work to help nonprofits communicate their issues more broadly—particularly to the public, and particularly with the goal of progressive policy change in mind. We do in-depth research on expert thinking about many different issues, from climate changes to homelessness and everything in between. We also do in-depth research on public thinking on those same issues.

This helps us identify gaps between how the experts think about things and how the public thinks about them. Those are the gaps that we aim to close in our communications. With that, we design and then actually test out different ways of communicating through several different methods to

ultimately come upon recommendations we can give for really productive ways of communicating.

Brian: That's very helpful, and it recognizes a gap that's been there for a while, unfortunately. As you approach that, I wonder, what are the sources of inspiration that suggest different ways of framing or telling some of these stories? Do you find yourself drawing from popular media or literature? What are just different ways you might think about to tell a story, whether tried and true or sources that might be unconventional?

Rose: Yes, sure. We do definitely look to the published academic literature as well, because we're all consumers of the media. We come across frames that make us say, "wow, that was pretty persuasive—that helps me think in a new way," or even sometimes, "whoa, does that work for people?" If we're put off by a message, we may even test that to see if it works for others.

As we're going about daily life, we certainly have this search for different ways people are framing issues in terms of how and what might be productive, and what might not be. Ultimately, after we brainstorm exhaustive lists, they need to be put to the test, because our intuitions are not always trustworthy when it comes to what works and what doesn't.

Brian: Yes, absolutely. Wow, we've got to get to that in a minute here before we wrap up. Rose, for the students who are listening today, or for folks who want to get involved in doing this kind of this work, is there any practical advice you might give them about how to contribute, even to the future of the storytelling that we're all engaged in?

Rose: Sure, yes. I think two things that are really helpful, of course, are finding researchers whose works are really compelling and being sure to follow those. I think also we've talked about many multidisciplinary ideas and doing some deep introspective thinking on what the lens is—are you really interested in how humans think and then go from there? Is it the language or the political science point of view? Then, there are many opportunities to be involved as students, particularly as research assistants, and I think that's a really great way to get your foot in the door and get a better sense of this world.

Brian: You've whetted the appetite, I think, for our listeners on a wide range of topics and ideas. I really appreciate that, Rose. Thank you so much for calling into the show today.

Rose: Thanks so much for having me.

Implications for Researchers

- Language and metaphors can shape how we think about everyday concepts.

- Researchers interested in topics such as public understanding of disease can both track the prevalence of particular language and assess the effects of being exposed to frames suggesting how a disease occurs and what can be done to address it.

Suggested Reading

Hendricks, R. K., & Boroditsky, L. (2017). New space-time metaphors foster new linguistic representations. *Topics in Cognitive Science*, *9*(3), 800–818. https://doi.org/10.1111/tops.12279

Hendricks, R. K., Demjén, Z., Semino, E., & Boroditsky, L. (2018). Emotional implications of metaphor: Consequences of metaphor framing for mindset about cancer. *Metaphor and Symbol*, *33*(4), 267–279. https://doi.org/10.1080/10926488.2018.1549835

Kaplan, R. (2000). *The nothing that is: A natural history of zero*. Oxford University Press.

Talking About Obesity (2019)

The interviews in this section of the book are connected in their consideration of language as a lens that helps form our conceptualization of key ideas related to science, health, and well-being. This interview features Rebecca Puhl of the University of Connecticut. Preparing for this discussion offered a challenge, given the need to refer to obesity as a public health concern, but also given the focus of the conversation on how we should talk about obesity. Here was an opportunity not only to listen carefully to the person being interviewed, but also, through her, to listen to the voices of the many people with whom she has discussed the condition of having relatively high body mass. The interview also features practical considerations for journalists and communication professionals—the sort of efforts to translate social science research into useful recommendations that sometimes are missing from published research.

Brian Southwell: Before we get too far into our discussion, I want to acknowledge my own limitations and opportunities to grow here, even in this

conversation, because we're going to be talking about obesity. Do you have any suggestions for the language we should use in talking about people experiencing obesity, or even about the topic in general?

Rebecca Puhl: Well, body weight is an emotionally charged topic for many people. We also live in a society where people who have a higher body weight face societal stigma and shame, and even discrimination, because of their weight. How we talk about weight and obesity, I think, is just as important as what's actually being said. Given that we have high rates of obesity, there's a lot of attention to these issues, but people have really different preferences and reactions to the language we use to talk about obesity. In the medical field, for example, medicalized terms like "overweight" and "obesity" are really the most common terms that get used.

There is a movement right now in the medical field to use what's called "people-first" language in the context of obesity, which really means referring to a "person who has obesity" rather than saying "an obese person." That approach focuses really on identifying the person first, rather than identifying a person by his or her condition or weight. But there are also some people who don't like those medicalized terms at all, and they feel more comfortable with terminology like "a person who has a higher body weight" or "people with larger bodies."

My research team has done really a series of studies now, examining language preferences in adults and in adolescents. What we find pretty consistently is that people prefer more neutral language when we talk about weight, especially when we think about how health-care professionals talk to patients about their weight. By neutral, I mean words like "weight," "high body weight," or BMI or body mass index. My perspective on this is that we don't really have a universally accepted phrase or term that everyone is comfortable with. I think it's actually important to really respect the diversity of preferences that exist.

I think it's probably best to default to the neutral terminology, but we can always ask people what language or terms they feel most comfortable with when talking about their body weight.

Brian: I really appreciate that. It's a very thoughtful answer, and I think one step we can take, then, is just to try to be as considerate as we can, recognizing when we make mistakes in that. Certainly, not just characterizing people as inherently in a particular condition but thinking about putting people first, as you said, is something we can try to do, and

we'll try to do that in this conversation, too. We're talking about the present moment, but I want to put our conversation somewhat into historical context as well.

If we think about popular culture in the United States in the past 10 years or so, for example, you can see lots of instances where people with relatively high weight have been depicted in a dehumanized way. You can look at news stories, and you don't have to search long to find pictures of bodies shown without heads. You also don't have to search long to find movies or news narratives that focus on personal willpower as the main contributor to a person's weight. With how we've depicted obesity recently, compared with where we've been historically, is it more the same, or are there important changes, just simply in terms of what's out there in the public information environment?

Rebecca: Well, obesity has actually been socially stigmatized for many decades. Some of the first research that was published on this topic was actually back in the 1960s, and it was even apparent centuries ago in different cultures. In medieval Asia and Europe, there was evidence of social attitudes about gluttony and greed, and there was the belief that if people had a higher body weight, that they had access to rich foods, and if they had any eating-related suffering because of their weight, that was a moral failing. Those kinds of attitudes have actually been present for a really long time.

Now, of course, as you were saying, we're bombarded with depictions of body weight and obesity in our modern culture. In particular, in many different forms of media—whether it's entertainment media, news media, or social media—what we really do see in those depictions is a fairly consistent emphasis on the idea that obesity is an issue of personal responsibility. It gets oversimplified a lot, without really enough attention to how complex this is and the biological and social and environmental factors that contribute. We're seeing more and more of the ridicule, stigma, and shaming in different media platforms like social media, for example.

There are some studies that have examined the portrayals of weight and weight stigma, even on Twitter. What we're seeing in those studies is really a lot of content that is negative and stigmatizing. It has, right now, really infiltrated multiple aspects of the media that we're exposed to.

Brian: Part of the reason we're having this conversation is the really important work you and your colleagues have done that starts to suggest all of this matters—how we talk about weight and obesity matters, and how we

depict it in popular culture has consequences. There are lots of consequences one can imagine, but I want to focus on some specific examples, to really put a finer point on this for listeners. What are some outcomes, that seem like we have evidence about, from people framing weight and obesity in particular ways, as I talk about it or as they depict it in content?

Rebecca: Just to put a little bit of background context to this, what we know from a very large field now on weight stigma is that when people feel stigmatized about their body weight this is really harmful to their health and it contributes to weight gain and obesity, as well as physiological and psychological distress and reduced quality of life. I think it's important to think of weight stigma itself as, in some ways, a psychosocial contributor to obesity and to recognize that if we have stigmatizing communication obesity, that's part of this.

There has been increasing recognition of the harms of weight stigma, but we really don't see that in broader communication. Continuing on from what we were just talking about a moment ago with media, we know how the media portrays obesity does have an impact on public attitudes. For example, we've done several experimental studies, and what we find is when people view stigmatizing images in the news media, for example, it worsens their expressions of weight bias. They're more likely to view people who have obesity as being lazy.

They express more dislike of people who have a higher body weight whereas when they see more neutral or nonstigmatizing images it actually improves their attitudes and reduces their weight bias. We've also done some research looking at how obesity is framed in public health campaigns. We've done a couple of national experimental studies looking at public reactions to different messages in some of the most widely disseminated public health campaigns that address obesity. Essentially, what we found there is people who view stigmatizing communication or messages in those campaigns end up having less motivation and self-confidence to try to improve their health behaviors.

Again, when they see those neutral or nonstigmatizing messages, they have more motivation to improve their lifestyle behaviors. I think, especially in the context of public health campaigns, they often use approaches that are intended to grab public attention. Sometimes that includes shock value or controversy. I think an important question, more broadly with how we talk about weight, is how we generate public attention about obesity and important health messages without that shame or stigma.

Brian: There's really a bit of a paradox there—that extensively well-intentioned public health efforts might actually be causing additional harm because of their use of certain imagery or their attempt to use fear appeals. I suspect when you raise this point that some health officials and campaign folks probably might be a little surprised, or even potentially offended, that you're pointing out this negative consequence of something, when they probably view what they're doing as actually being for a larger public health goal.

Rebecca: Yes, you're absolutely right. I think it is important to recognize the fact that a lot of these public health initiatives really stem from positive intentions. A lot of times, the whole issue of weight stigma isn't necessarily on their radar. There isn't the careful consideration about language and messaging and unintentional consequences of that messaging. Those things often aren't considered to the extent that they need to be.

Brian: There's another intriguing and pragmatic aspect to this. You've written about how with folks who are experiencing high weight, or people who might be seeking to lose weight, there's a tendency, even among them, to internalize this prevalent weight bias. What do we know about how weight bias internalization seems to operate?

Rebecca: Weight bias internalization happens when people become aware of negative stereotypes toward them because of their weight, and they either agree with those stereotypes or they start applying those stereotypes to themselves, like blaming themselves for their weight or the stigma that they experience. Beyond actually experiencing stigma or unfair treatment because of one's weight, internalization really involves applying those experiences inward and almost engaging in self-stigma. From what we've seen, this is the topic that's received recent attention in our field.

We're seeing that pretty high numbers of people are internalizing the stigma—as many as 40% of US adults who are overweight or have obesity are endorsing some level of internal motivation, and about 20% are expressing high levels. We do see that this is more likely to happen in women. It's also more common in people who are trying to lose weight. One of the reasons this is an important issue for us to be studying is the fact that internalized weight bias can actually have negative implications for health—sometimes even more than the actual experience of being stigmatized.

For example, we know that people who internalize weight bias have worse mental health issues—like depression, anxiety, or poor body image—and also poor physical health. They have higher levels of obesity and less motivation for health-promoting behaviors. I think we really need to pay attention to this as a factor that also may be contributing to the health of people who are vulnerable to stigma.

Brian: Absolutely. There's one other aspect to this that I want to talk about briefly here before we go to a break. It's not only in terms of people essentially talking with themselves and thinking about this internalization—you have also seen that family communication matters. How parents talk with their children really seems to have consequences, and that's popped up in your work.

Rebecca: Again, weight is a really emotionally charged topic. This is especially true for kids and teens, as their bodies are changing, and as they become more aware and vulnerable to societal messages and ideals about weight and fitness in our culture. A lot of parents engage in what's called "weight talk" with their child. That essentially means they talk about weight in different forms. Sometimes it might be a parent making comments about their child's weight or encouraging their child to diet to lose weight.

Other times, it might actually involve teasing their child about weight. It can also include comments parents might make about their own weight, or the weight of someone else, in front of their child. That's important because weight conversations like this really have implications for their child's overall health, both emotionally and physically. Typically, the more parents talk about weight to their child, the more likely the child is going to have poor body image, unhealthy eating behaviors, and even depressive symptoms or feelings of low self-worth.

Our work has found that parents who themselves have experienced or internalized weight stigma may actually be more likely to talk about weight with their children. I think we have to think, again, about the language we're using. Some of our research has looked at how adolescents react when their parents talk about weight or refer to their weight using certain words. What we see is that many adolescents, especially girls, feel embarrassed, sad, and ashamed when parents talk about their weight. That's true even if they're using the more neutral words that you and I talked about earlier, like "weight" or "BMI."

I think that really emphasizes the importance of approaching those conversations with a lot of sensitivity and acceptance. A lot of parents are worried about their child's weight. If their child has a larger body size, many parents do make comments about their child's food choices or weight, but that can really backfire. I do think all parents want their children to be healthy, but that's much more likely to happen if parents actually model the healthy behaviors they want to see in their children and create a home environment where their kids can make healthy choices more easily, rather than just talking about weight or appearance.

Brian: It makes sense, then, to even not necessarily raise the topic. Rebecca, you've really helped us understand where we are currently…

Brian: Welcome back to *The Measure of Everyday Life*. Today, we're talking about how we talk about weight and obesity with psychologist Rebecca Puhl of the University of Connecticut. Rebecca, in the first half of the show, we talked in a general way about both what's out there and the information environment and some of the more robust effects we've seen of that, in terms of outcomes and consequences. Your work also, though, has explored ways in which people of different backgrounds might experience different effects of weight bias, for example.

What are some ways in which we might not all be experiencing the current media environment or interpersonal interactions in the same way?

Rebecca: I think it's important to look at the ways in which weight stigma can affect people of diverse backgrounds, including people who may have multiple stigmatized identities—for example, people who are experiencing stigma both because of their race and their weight, or both because of their sexual orientation and their weight. I'll give you a recent example of some of our work with respect to sexual and gender identity. We conducted a national study of sexual and gender minority adolescents. What we found is that being teased or bullied about weight is very common in these adolescents.

It's not just for those who have higher body weight, which is what we typically see in heterosexual examples. What we found is that very high percentages of teens who had lower body weight and were underweight were also reporting that they were being teased or bullied about their weight—that regardless of their body weight statuses, these experience of weight-based teasing and bullying really had concerning implications for their health. They

were more likely to report worse physical health, and they were more likely to report more substance abuse behaviors, like using alcohol and drugs.

I think with these highlights, we need more of these kinds of studies that examine the nature and impact of weight stigma in diverse groups of people and how it can worsen the health of those who are already vulnerable to stigma because of other aspects of their identities.

Brian: Something researchers do sometimes is they work in an isolated way on their particular topic without thinking about how it's connected to everything else that's going on in the world. What you point out is, some of those other challenges that people face also matter, and they might matter in multiple kinds of ways. That's really helpful. Thus far, you really have helped us understand the extent to which we face some serious challenges in this arena. I'm interested to know and to talk a little bit about your own personal journey in getting here—how did you get involved with work on stigma and bias and perceptions of obesity in the first place?

Rebecca: This isn't a topic that I planned to have my career focused on. I'm a clinical psychologist by training, and when I began graduate school, my plan was to do research on prevention of eating disorders, which is a related but different topic. There were a couple of experiences in my training that really shifted my career path to focus on this. One was that I was offered a research opportunity by one of my mentors to really start looking at the literature and the research evidence on weight stigma.

It wasn't really something that I knew anything about, but it was an experience that really opened up my eyes and showed me that this was a problem that wasn't getting very much attention. I was interested to learn more. The other experience was that as a clinical psychologist in training, I was treating a lot of individuals who were struggling with their weight, and weight stigma came up all the time, especially with the women that I was treating. It was a barrier to their treatment progress, and it was impairing their relationships.

I really just realized that this was an issue that is affecting people's quality of life. I really didn't look back from there, and it's been something I've been studying ever since.

Brian: It's inspiring to hear that you took that turn. You've had a while to look at the literature that's relevant to doing work in this arena. In this last part of the show, I'd like to look ahead toward what we can do—both

individuals who are listening to us right now and folks who are in a position to help them at the level of communities—and think about community intervention. For all of that, I think we can draw on some examples that you've learned about, or that you've witnessed yourself, of instances in which we have made at least some progress—and when I say "progress," I'm talking about both weight progress and helping people overcome internalized bias.

I guess let's start first with folks who are listening and might be directly inspired to improve how they're addressing this in their own lives in some way or talking to other people. Are there steps that people personally can take that seemed justified by your work?

Rebecca: I think in general, we can all play a role in this issue by first thinking about what our own assumptions are about body weight. It's recognizing that many of us have automatic biases and attitudes we may not necessarily express—but that still may be part of the assumptions we make about weight—and thinking about challenging those assumptions. I think we can also all play a role by speaking out when we see examples of someone being disrespected or shamed about their weight. We need to realize that everyone does deserve to be treated with respect and dignity, regardless of their body size, even if that's not a message we typically see in our society.

We see so many examples right now, in social media and other aspects of our society, where people are being shamed because of their weight, but we can also use those platforms as an opportunity to shift the conversation and dialog and to really advocate for people, regardless of their body size.

Brian: Absolutely. Well, let's shift to think a little bit about the society and communities that we live in. I think there are larger implications of your work, at that level as well, for thinking about how communities respond. Are there structural changes—interventions, really—being organized at the community level that seem promising for us to pursue based on what you're learning?

Rebecca: Well, I think broadly speaking, it's difficult to eradicate or reduce unfair treatment toward people because of their high body weight without broader kinds of structural changes. There are a couple of policy targets that I think are particularly important. Right now, we live in a country where there are no federal laws that prohibit weight discrimination. Michigan is actually the only state that has a law prohibiting weight discrimination. With the exception of maybe a handful of cities across the country that have also

passed laws, it's essentially legal to discriminate against people because of their weight.

That's also true to some extent in the case of children when it comes to bullying. We know that weight-based bullying is a huge problem. Weight is one of the most common reasons that kids are bullied, but it's still gets ignored a lot of the time in school-based anti-bullying policies, which often don't include any language about body weight as a reason for why kids are being bullied. I do think there are some important key policy targets to address weight stigma on a broader level.

We've done a fair bit of research on this—looking at public support for laws that would prohibit discrimination based on weight or laws that would strengthen existing anti-bullying policies to make sure kids are protected because of their weight. We're seeing really substantial public support—as much as 80% or more of Americans who are in favor of these kinds of initiatives. I think what we need now are policymakers to take on these issues. Massachusetts is a good example. They've been trying to pass a state law to prohibit weight discrimination for quite some time now, and they are getting closer—it would make them the second state in the country to have such a law.

I think another structural change that would really help shift some of the negative public attitudes that we see is thinking about the way in which the media communicates about weight and obesity, because we just know how influential the media can be in shaping public attitudes. One of the things that we've done at the Rudd Center is to create a repository of hundreds of professional photos and B-roll videos that portray people with higher body weights in a very respectful way. We've made that a resource that's freely available to the news media, educators, and health professionals.

We've had some good success with the images from our repository appearing in national news articles. I think this kind of thing can really help broader efforts to reduce societal stigma. We certainly need to go farther than that. We need to ensure media standards are weighed in a way that were applied to other forms of prejudice, and that certainly requires more systematic effort and education.

Brian: Part of what's really compelling about what you've done with the repository is just recognizing that some of this, on the part of journalists and others, isn't necessarily fully intentional. It's just a matter of people trying to quickly beat deadlines and do their work, and they pull from existing images. If we're all drawing from the same somewhat toxic set of resources, that's

what's going to happen. By putting something more positive out there, I think you are going to see uptake of that, if people have the existing stock photos that are more positive there.

I want to ask about that as a resource, and then I've got one other question here before we break, but for folks who are interested in the repository specifically, should they just look up "Rudd Center," or is there a name or a label to that, or a database or warehouse?

Rebecca: If you go to uconnruddcenter.org, that's our website. The repository is there, and we're no longer the only organization that has created this free image bank. There are other national organizations with a bank, like the Obesity Action Coalition and the World Obesity Federation, and those banks are freely available for using these photos and images for reporting.

Brian: Great. Well, we've got just a minute here before we wrap up, but I do want to ask for your advice on this as well, Rebecca. For folks listening right now who might be struggling with anything we've talked about today, and who aren't really sure where to turn next for help, are there some places where we can advise people to go? Where can people go to explore some next steps?

Rebecca: I encourage people to check out our website at uconnruddcenter. org. We have a lot of information and free resources on this issue for lots of different people—for parents, for teachers and educators, for health-care professionals, and even for teens and adolescents. For people who might want to get involved more in advocacy-level kinds of efforts to address this, you can also check out the Obesity Action Coalition. I would say to any parent—because I think this also is an issue that a lot of parents get concerned about—one way to start is to look at what kind of anti-bullying policy is at your child's school, to see whether that policy has any language on body weight. If it doesn't, this is something you can take directly to your school principal or to a school administrator, to talk about the importance of strengthening that policy to include weight, so kids are better protected from teasing and bullying.

Brian: Great. Well, Rebecca, thank you so much for sharing your time with us, for explaining all of this, and for all the work you're doing, and we really appreciate you calling in today.

Rebecca: My pleasure, thanks for having me.

Implications for Researchers

- Researchers sometimes evolve to work on questions they had not anticipated addressing when they were first trained.

- Addressing weight-related bias will require systematic investigation of how we each think about and talk about weight.

- Labels used to describe people experiencing high body mass are often used without much explicit consideration, yet such labels hold potential consequences for societal consideration of weight.

- Images that accompany news stories can affect public understanding, yet they often are not tracked, which suggests an avenue for future research.

Suggested Reading

Puhl, R. M. (2020). What words should we use to talk about weight? A systematic review of quantitative and qualitative studies examining preferences for weight-related terminology. *Obesity Reviews*, *21*(6), e13008. https://doi.org/10.1111/obr.13008

Puhl, R. M., & Heuer, C. A. (2010). Obesity stigma: Important considerations for public health. *American Journal of Public Health*, *100*(6), 1019–1028. https://doi.org/10.2105/AJPH.2009.159491

Talking About Emerging Infectious Diseases (2020)

In part because of our experiences with Ebola virus, Zika virus, and COVID-19, emerging infectious diseases have generated considerable news outlet attention in recent years. How we talk about epidemics and pandemics holds important consequences for our mental models of disease and perhaps even for the policy decisions we make. This episode features Priscilla Wald of Duke University, who has explored the predominant narratives we have tended to use in describing our struggles with infectious diseases.

Brian: In the introduction, we played a little bit from the trailer of the film *Outbreak*. I can remember back in 1995, that film had an effect on how people understood what epidemiologists do. Actually, I was working at the CDC shortly after the film came out, and it would be a point of reference during dinner parties. When I talked with people about what I did, here was a

popular culture spotlight on epidemiology. Some might think that movie was one example, and maybe an egregious example, but you've found that over time, we've tended to talk about new viral diseases with this warfare mindset. This is actually a fairly predominant trope throughout lots of our popular culture.

Priscilla Wald: Absolutely. I would call it the dominant metaphor that we use to talk about fighting a virus, or any major infectious disease or microbe, although I've found it mostly with viruses. I think one of the reasons for it is something that Joshua Lederberg said—he actually wrote an epigraph for the film *Outbreak* about how viruses are the single biggest threat to humanity's dominance on the planet. One of the things he said is, we really find it hard to imagine that nature has no special sentiment for the human species. I think one of the things we do by making the virus an enemy in warfare is give ourselves a foe, so we have a better sense of how to fight it and perhaps are less insulted by the fact that this microbial thing is feeding us, as Dustin Hoffman says in the film.

Brian: You have this rallying cry, then, of, "We're all in this together. We are fighting this enemy." That's understandable, but you've also argued that it's not necessarily as helpful as it might seem, because if you think about the notion that we're all in this together, the "we" in that statement is humanity, and it's in battle with this virus. So, that's inherently setting up this microbe or virus as an enemy, and that may be problematic for our solution or way forward. Give us a sense of what the consequences of all of that might be.

Priscilla: Absolutely. I think there are several real problems with that. One of them is that it has a tendency to stigmatize certain populations that are seen as somehow responsible for the disease. We're all in this together, but if you think about COVID-19, there was a lot of anti-Asian and anti-Asian American violence that happened in the United States and elsewhere, because the virus enemy that we were at war with was identified with the population of where the outbreak had begun—in China. That's one real problem, but I think an even deeper problem, and one that we talk about, is the tendency to place responsibility for the problem on the virus itself. The virus is attacking us.

We respond as though we're at war with it, without thinking about the fact that it's really human beings, human responsibilities, and human actions that have caused outbreaks and especially that have caused outbreaks to become

pandemics. The microbe or virus might get into our bodies, and it might cause symptoms, but it hasn't caused the pandemic. The real culprits are the ways we have circulated those microbes or viruses and passed them to each other, the conditions such as global poverty that predispose an outbreak to become a pandemic, the way we do our development practices, the idea of globalization, and just generally, our interconnections. As one epidemiologist puts it, "We are the traffic engineers that are moving this thing around the world." I think that metaphor keeps us from really confronting that.

Brian: It's a fascinating way of just thinking about where agency really lies in this, which is also interesting, even just in terms of what we know about viruses, per se. I mean, some have even argued philosophically that viruses may not be fully alive in the same sense as other entities, yet here we are attributing all of this intent and nefariousness to something that is maybe more a function of what we would see if we looked in the mirror. What else are we missing in talking about viruses this way? It's not as though we haven't been talking about emerging infectious disease. That's an important point, and this comes up from time to time—there will be a large spotlight put on it. But you're suggesting that even when that happens, we're missing an opportunity to talk about something else in terms of public health. What's lost when we don't actually talk about viruses in the way that you think we perhaps could?

Priscilla: That's a great question. If you go back to the coining of the term "emerging infection" or "emerging disease," the definition of that phenomenon happened during a 1989 conference when a group of epidemiologists, infectious disease specialists, and other specialists involved in the area got together. This was at the end of the decade in which HIV had made itself known and had traversed the globe many times over. At the same time, in the 1970s and the 1980s, we had been seeing the emergence of things like Ebola, Marburg, Bolivian hemorrhagic fever, and so on. These are really devastating communicable diseases, and they are the ones featured in the film *Outbreak* and Richard Preston's *The Hot Zone*, which gave *Outbreak* its impetus. What those experts said was, "This is not a problem just for medical science and epidemiology. This is not a problem we could solve just with our expertise in this room."

This is a problem of globalization, as I just mentioned, and the way we are practicing globalization, or carelessness about how we're moving around the

world—it's our development practices and the fact that we're going into habitations we haven't lived in before, because the population is growing and becoming more interconnected, even as the world is shrinking. We have created the conditions through which an outbreak in a remote location can travel very quickly around the world and get everywhere as we are living. They said that we really have to understand the problem of disease emergence in much broader terms. We have to change our everyday practices, think about how we're inhabiting the planet, and think about our inequities. For instance, like I mentioned before, global poverty is huge. In fact, it's the single biggest vector that turns an outbreak into a pandemic, because you've got populations that are more predisposed—they have greater susceptibility because of living conditions that often mean people packed together. There's more chance for mutation and less access to things like health care. In all of these ways, the fundamental inequities and injustices of our world—as well as these larger practices we're not thinking carefully enough about—are creating the conditions that have allowed this to happen. Again, if we think about this as the fault of the virus, we're not taking those conditions into account. If we tell the story of the disease just as the crisis of the outbreak becoming a pandemic, we're not taking a broad enough view that would allow us to address the conditions producing this problem.

Brian: Part of what's fascinating about that is even just the phrase, "emerging infectious diseases." You rightly put a spotlight on that first word and the notion of defining this as "emerging"—there's a framing there of novelty, as though either we somehow haven't been here before or we couldn't have anticipated some of this. But you're rightly pointing out that this has been a long time coming, in terms of the underlying conditions. Also, given the framing of your book, we always love in this show, when possible, to talk with folks who are really grounded in thinking about history.

You've had a chance to look back at earlier episodes in our history. I'm curious about your sense of 2020, not just in terms of what's happening or some of the dynamics with the pandemic, but really in terms of how we've talked about it. How would you characterize discourse about COVID-19 relative to those earlier periods? It sounds like you're seeing some real through lines, but are there also points of departure? What's your sense of where we are in 2020 in terms of discourse? Let's talk about this here, just in the minute or so we have before wrapping up, irrelative to other instances.

Priscilla: Well, on the one hand, I see, like you said, the through lines. I see a lot of consistency, which is frustrating, but what is heartening to me is I also see more and more of the mainstream media and people generally talking about these other conditions that have produced the problem. People are beginning, I think, to move toward the narrative that the attendees of the 1989 conference hoped would circulate. I would very much like to see that continue for many reasons, not least of which is to address some of the inequities that the pandemic is pointing out.

Brian: I'll also note that we were talking with you about your book, which is a few years old now. There are folks who are writing and thinking about this, and the hope is that this eventually could shift the narrative in terms of the overall way in which we talk about things as well. There's a lot more we can talk about here in the second half of the show, Priscilla, but we've got a couple of seconds right before the break, just as we turn to that. Is it your sense, looking at recent weeks, that even the way we're talking about COVID-19 itself has evolved and changed? Are you seeing changes in real time over the course of months and weeks in terms of how we're talking about this?

Priscilla: I have a longer answer to this that I hope we can get to. As a preview, I'll say it's not so much COVID-19 itself, but I think the protests are a really important move in the right direction—for the world generally, first and foremost, but also for a different way of thinking about pandemics. My hope is to see more of the kind of discourse that is circulating, emerging, and taking hold through the very important protests that we're seeing.

Brian: Priscilla, we talked globally about popular culture in the first part of the show and how it has referred to new infectious diseases, pandemics, and epidemics. Some people will rightly point out that at any point in time, in a country like the United States, we have multiple cultures of discourse that are coexisting.

That means sometimes, different communities talk about diseases differently. Think about, for example, the ways different communities talked about HIV in the 1980s and 1990s. I'm curious, and I know we've only had a few months to really think about this, but have you noticed points of departure or differences between different cultural discourses when it comes to infectious disease? Either in the context of COVID-19 now, or as you look back across time at other examples, are things more alike than you might have imagined, even when people are talking in different communities?

Priscilla: That's a great question because it's both. On the one hand, every crisis produces, I think, an "us" or "them." You have somebody—some population or group or set of behaviors or practices—that is going to get blamed. I talked about that earlier. We may blame the virus, but we embody that viral enemy in some population or set of behaviors or something. We absolutely saw that with HIV. Particularly in the US context, we had the "4-H's," which were heroin users, Haitians, hemophiliacs, and homosexuals. The hemophiliacs were the innocent victims, and the other three were somehow responsible for the disease.

We had religious leaders in some corners saying it was a judgment from God. We had the government not saying anything at all, or not saying enough, early on. We had ACT UP saying, "This is a disease, not something we've caused, it's something we're suffering from, we need more action from the government." You always see things like that. With COVID-19 we're hearing people talk about the front lines and who's on those front lines. We're hearing people for the first time include, for instance, grocery workers, mail delivery workers and mail carriers, and so on.

We're not hearing them talk as much about, say, farm workers. Some people are, but most of the discourse, for example, on mainstream media, is not about farm workers. The perspective is people who are keeping our economy going and keeping food on the table—those of us who are safely sheltering in place, who are risking their lives, or who don't have access to adequate health care. I'm not exactly answering your question in terms of a discourse, but certainly a point of view is going to be very different depending on the position somebody occupies and what we're paying attention to.

I do feel that at base, there is still this sense of, "We're at war." I'm hearing in every community that we're at war with the disease—we're valiantly fighting the disease, the frontline workers are fighting the disease, and we applaud our frontline workers for fighting the disease. I share in the gratitude to all of the people who are putting themselves at risk in order for the rest of us to be able to live comfortably. I'm not hearing the deep discourse change among those groups.

I'm hearing the analyses change. I'm hearing some groups understand that, say, Black and brown people have a much higher disproportionate rate of mortality and morbidity—I'm hearing that analysis. I'm hearing, as I said, different perspectives, but under it all, in terms of what the problem is, I'm still not hearing a difference from what I've been tracking since the '80s.

Brian: If we've got the sense of an immediate threat, that might be taking our eyes off the longer-term impact of poverty, for example, that got us here in many communities and that's not popping up, even as we're talking about immediate remedies in terms of physical spaces and what we might do there. Your work on this topic is rich and fascinating, and you've been thinking about this for many years before this current moment. I'm always curious, though, how people get started in a particular line of inquiry. How did you first start thinking consciously about how we talk about diseases? Can you remember your process of discovery and deciding to write the book, for example?

Priscilla: Oh, yes, I can—very clearly. In the mid-'90s, I had just finished my first book, and in that book, I had talked a lot about medical stigmas involving immigrants and nonwhite people—all of the ways that biases in the United States got expressed through medical anxieties and why. In the process, I got very interested in the issue of typhoid—specifically, an Irish American cook named Mary Mallon, who had the nickname "Typhoid Mary" because she was the first identified healthy carrier of typhoid in the United States. I got very interested in her story, and at the same time, I was finally going out into the world and getting to have some fun. I went and saw *Outbreak*, and I was really taken with that movie.

In the media, I began to notice a lot of discussion of this thing called "emerging infections." So again, in the mid-'90s, I read *The Hot Zone*, Richard Preston's nonfiction novel—it's based on a piece from *The New Yorker*—that became a best-selling story of an Ebola outbreak in a primate facility, and people were very nervous about how it might break out into the human population. I read Laurie Garrett's *The Coming Plague,* which is how I found out about the 1989 conference. Then, I read the work of the people that got produced during the conference.

I got really interested, because what I started to see was this very consistent vocabulary that I identified in the work on Typhoid Mary that I was seeing again in the 1990s. There were certain words and phrases. There were certain plot lines that were very familiar. I sat with it for a while, and I wrote a little bit about it. I did some research and then, as there were various outbreaks that started to get reported in the media, I couldn't believe what I was hearing, but I could predict how they were going to discuss it on the radio or in the newspaper. I saw references to Typhoid Mary and Patient Zero, who was Gaëtan Dugas from the HIV/AIDS pandemic. Then, in 2003, with the

SARS outbreak and pandemic, I was unbelievably struck by how it was all coming together. Every single thing I noticed kept being repeated, and I thought, "I have to sit down and write this book." So, I sat down and wrote the book.

Brian: Those moments can be striking when there are these echoes from our past. We go back and realize we've been there before, and we tend to talk about these things in the same ways.

Priscilla: Exactly—and I should also say that I was in New York City from 1980 until the mid-'90s. I watched the HIV/AIDS pandemic unfold. I have a lot of friends who contracted HIV, and a few who died. It was traumatic for all of us. I gave you the conscious way that I came to this, but I have no doubt that this was very much in my mind for a long time because of having lived through that.

Brian: What a powerful story, too. I'm sure there's some sense of it being gratifying to help us make sense of it, but there's also pain, because the way we have talked about it has caused loss and suffering for decades. You are part of that solution, then, in helping us talk about these things differently. That's what I want to discuss just for the last few minutes here that we have for this episode, Priscilla. I'm wondering, there's much that needs to be done in terms of dealing with this from a public health standpoint, but in terms of how we're framing and thinking about infectious disease, what do you think we could and should be doing about that? What would you recommend, and where can we start?

Priscilla: I think we need to change the story, and I think we need to go back to the 1989 conference. We need to think about those insights and the message that they were giving. Where I would start right now is with the very important protests that are happening. People are arguing, very rightly, that we're way overdue to address the anti-Black violence that has been with this country since before it was a country—to address this systemic racism that is deeply embedded in the structures and institutions of this country and of the world.

How does that affect the pandemic? Several friends I have talked to about this have said, "Yes, it's very important that we do this, but there are other inequities." The point of addressing something like the fundamental structural of racism is that when you begin to address that problem, all of the other inequities get addressed along the way.

If you've heard the organizers talking about their demands and what they're asking for, they're asking for better health-care systems, redistribution of resources, better community support, and everything from mental health to disability services. If we begin to listen to those requests, demands, and analyses, we begin to see all of our inequities that have been so starkly pointed to by the pandemic itself.

I don't think it's a coincidence that the protests are emerging in the context of the pandemic. If we begin to address that, we begin to address the deep structural problems that the 1989 conference was calling attention to. We look at the environment differently. We look at development differently. We look at globalization differently. If we attack or don't attack—now I'm using the metaphor I'm trying to avoid.

Brian: [laughs] Right.

Priscilla: If we seriously sit down with these very important analyses, and we systematically write and begin to address these issues, we will find the conditions that cause outbreaks—particularly that allow outbreaks to become pandemics—and we will be addressing the things we need to address. Those are the things the 1989 conference called for. If you want to know where we should begin, we should begin by listening to the very brilliant and important analyses coming out of these protests.

Brian: It's such an important answer, and it really strikes me. With some pundits and other folks, when we've seen the sequence of events unfold over the last couple of months, we've had the emergence of the pandemic, and then we've had the Black Lives Matter protests, and some of the response has been, "not yet another crisis for us to deal with."

In fact, it's all the same crisis, and that's really what's important about what you're noting there. Dealing with the deep underlying inequities is part of what has gotten us here. I really appreciate that analysis on your part, Priscilla. Here's to hoping that as we all talk about this in contemporary journalism, and in popular discourse, people are starting to hear more of the important recommendations you've been putting out there for quite some time. I want to thank you for taking the time amid all of this to join us. Thank you for calling in today, Priscilla. We really appreciate it.

Priscilla: Thank you. It has been a pleasure to talk to you.

Implications for Researchers

- Researchers can draw inspiration both from personal experience and engagement with historical narratives.

- To understand public discourse on a pandemic such as the COVID-19 pandemic, we can turn to historical examples of discourse on other infectious diseases.

- Using war metaphors to describe efforts to address infectious disease outbreaks and pandemics can have unintended consequences and can limit popular discourse in important ways.

Suggested Reading

Southwell, B. G., Kelly, B. J., Bann, C. M., Squiers, L. B., Ray, S. E., & McCormack, L. A. (2020). Mental models of infectious diseases and public understanding of COVID-19 prevention. *Health Communication*, *35*(14), 1707–1710. https://doi.org/10.1080/10410236.2020.1837462

Southwell, B. G., Ray, S. E., Vazquez, N. N., Ligorria, T., & Kelly, B. J. (2018). A mental models approach to assessing public understanding of Zika virus, Guatemala [Research letter]. *Emerging Infectious Diseases*, *24*(5), 938–939. https://doi.org/10.3201/eid2405.171570

Wald, P. (2008). *Contagious: Cultures, carriers, and the outbreak narrative.* Duke University Press.

Environmental Disasters and Dilemmas

Human Responses to Floods (2016)

This episode features Elizabeth (Betsy) Albright and Alexandra Cooper of Duke University. It is a story of quick thinking and adaptation of research methods to novel and challenging circumstances as Albright and Cooper's team faced the arrival of a hurricane and developed a protocol for talking with those affected. The interview highlights the resilience often displayed by social scientists. It also marks the first reference to a Piggly Wiggly on the show.

Brian Southwell: Elizabeth, this is not the first time that you've studied the aftermath of a flood. Can you tell us about some of your previous experiences in places like Colorado and Hungary?

Elizabeth Albright: Sure. In the early 2000s, I was invited to take part in a research project, actually after a big flood in the Czech Republic, with faculty at the Massachusetts Institute of Technology, MIT. I welcomed that opportunity. I had lived in Central Europe previously and was really interested in water, flooding, and their impacts. Then I decided to do my dissertation research in Hungary where I looked at the recovery or response to a series of extreme floods they had over the course of a decade, basically from the late '90s to the mid-2000s.

My work involved really asking, interviewing mayors about what they've learned, how they're perceiving floods, and how they're trying to adapt for a future in which flooding is an increasing problem. Then, circa 2013, Colorado was hit by an extreme rain event with more than 20 inches of rain in some places. They suffered about $3 billion in damage across the state. A collaborator at CU Boulder, Deserai Crow, and I received a National Science Foundation grant to follow seven communities over a 3-year time period, both at the policy level and at the household level to see what people are thinking about floods, how they're learning about floods, and changing for a future with a potential increase in floods.

Brian: It's really fascinating work, and I know that many of these are unique circumstances. Unique in some ways, but I suspect that there are commonalities as well. I'm curious, Elizabeth, what have you learned about some of the common challenges of doing social science in such circumstances?

Elizabeth: One, that it's a challenge.
   [laughter]

Elizabeth: I think you brought that point up initially, that one is getting the resources gathered that are necessary to implement a research project on the ground. You don't know when or the extremeness of a flood and where it's going to happen. As faculty, we teach. We have our day-to-day lives as well and trying to then figure out how we can go out into the fields and talk to people while maintaining teaching, et cetera. Also, the challenge is working with individuals who have experienced such devastation. Listening to their stories, well, it's hard for me. I can't even imagine what they're going through or have gone through and are still going through today, particularly in South Carolina.

   I think it's really critical to get the voices of the residents who have been experiencing or have experienced the flood and total devastation, loss of all personal items, household items, and listen to that, and just try to figure out a way to help in terms of how research can inform society so we can help dampen these impacts going forward.

Brian: Absolutely. You talked about the challenges and the alternative, the story simply doesn't get told. There's this moment where there's so much we can learn about what's happening in the immediate aftermath that just wouldn't be reflected in your reports years after the fact or with some level of abstraction. I want to turn specifically to the story of Hurricane Joaquin in South Carolina. Alexandra, you and the Social Science Research Institute at Duke saw an opportunity to help as the storm was unfolding. Part of your idea involved a van. Can you tell our listeners about what you and your colleagues did to make research in South Carolina possible on such short notice?

Alexandra Cooper: Sure. We do have this van or, really, an RV. It's a 37-foot long RV that we've owned and managed now for about 6 years. It was made possible with funding from the National Science Foundation to develop it. I had worked with the team of faculty that conceived of the idea of having this

resource and developed the proposal seeking support to create it. I knew that one of the ideas that had motivated getting this resource available to Duke researchers was an interest in being able to dispatch people quickly into the field in situations like the flooding in South Carolina and other disasters.

I also happened to know, because I have been at the Social Science Research Institute all that time, that it had never been used in that context. It's been used in other research settings, but it hasn't actually been dispatched as we did this time to study the aftereffects of a disaster. We have, in some ways, found it challenging to use. It's a big contraption. It requires a professional driver to move it into the field and all that has to be set up. South Carolina isn't that far away. It seemed plausible to think this was the first time it could be used in a project outside of North Carolina, that maybe we could get down there and so I started talking to people.

Actually, it was fortunate, I was talking to a postdoctoral scholar who works with me in the survey research initiative, the Duke Institute on Survey Methodology. He remembered that about 3 years ago, Betsy had approached us with a request for help crafting the survey tool she used in Colorado. He said, "Oh, you should talk to her," because at that point, I was putting out feelers thinking, "Well, who's going to be the researcher driving this?" That was how that connection happened. It was actually a great example of what we do at the Social Science Research Institute in the sense that we are about making those connections happen where maybe they weren't already in place.

Brian: That's really great. It's quick thinking on your feet and creative deployment. The resource needed to exist in the first place so that was great in terms of getting that, but then figuring out a way to use that was really impressive. Now, Alexandra, I want to follow up, though; Elizabeth just noted a moment ago that it's not necessarily typical for faculty to just drop what they're doing and go out and engage in research. Sometimes, these disasters are happening even in our own backyard. Why do you think it is that researchers aren't able to typically be so nimble and to do work even when it's in their own locality?

Alexandra: Well, I think it's like any other responsible job. Faculty are busy. People are already engaged in research projects. They're typically planning their next couple of research projects and seeking funding, often outside funding, and that all takes time and commitment. They've got students. We had to find somebody who was able to say, "This is worth sectioning out time in my life." Betsy can speak to this, but I don't think it was so much time out

of her other professional responsibilities. I think it was more time that she might have spent recovering from those.

Elizabeth: Goodbye, winter break.

Alexandra: We talked about some different scheduling options and did end up settling on winter break, which obviously was a little bit more distant in time from the flooding itself. In some ways, that was too bad. In some ways, it was probably a good thing because it did mean that we were able to talk to people a few months after the floods and find out how they were recovering. It was just hard to find time, honestly, to squeeze it in. I was astonished actually by how well the winter break opportunity did end up working out.

Brian: That's great. I want to talk just before the break here for a few minutes about the various hats that you both wear as researchers, but also as neighbors and citizens. Now, when you're doing research in the wake of a natural disaster, I think there are likely important ethical decisions to make in terms of what's best for the study, but also possibly decisions about what might be best to help an individual person or family. How did the experience in South Carolina inform the perspective that each of you has on that issue? Were there trade-offs? What's your thinking in terms of the ethics of intervening and doing work like this? Elizabeth, what's your thought on that?

Elizabeth: That's a great question, and one that I struggled with when we were down in South Carolina and one that I continue to struggle with. First and foremost, I needed to keep in mind that we're researchers and that's the hat that we were wearing, and we needed to be transparent about our role. In doing so, also recognizing and being sensitive to the experiences the residents have gone through. Both Alexandra and I, and the students as well, understood the importance of really active listening when we were interviewing the 50-plus residents of South Carolina and much to my surprise, I found people really wanted to speak to us about the stories they had.

They wanted to share. People brought their phones in and shared pictures of the devastation that they've been through, their cars being destroyed. We were there to listen. In terms of ethics, we made it clear that if anyone got uncomfortable at any point in time, they were allowed to stop, they didn't have to finish it. They could leave the study, we would delete all files. Then there's the broader ethical questions to me in terms of what happens with this information. That's critical and I don't want to be one to helicopter in, helicopter out, and just end up publishing in an academic journal.

There's nothing wrong with that, I do a lot of that in my career, but it's important to take the information once we analyze it, to speak about what we've learned to decision-makers at the local level and at the state level to share our stories, their stories, most importantly, and what we've learned. It is a struggle between the two, but it's important to keep that conflict in mind.

Brian: That's great. You even point out an angle to the question that I hadn't emphasized as much, the life of this research after and what obligation we have to continue to connect with community. I want to talk a lot more about all of that. We're going to hear more, specifically about what it was that your participants had to say, on the other side of our break. There's certainly a lot for us to consider, and I really appreciate you all raising these issues…

Brian: Welcome back to *The Measure of Everyday Life*. Today, we're discussing social science on the edge of disasters with two Duke University researchers, Elizabeth Albright and Alexandra Cooper. Specifically before the break, we began talking about the aftermath of Hurricane Joaquin and its effect on South Carolina. Alexandra, I'd like to hear more about the ways that the study that you all conducted actually was implemented. I know there were really a lot of complexities here, some of which involve the fact that participants may have brought their whole families to the interview sessions.

I also know that you involved some student interviewers and there are complications with that. Talk to us about how it was that you managed all those complexities and some of what you learned about the need for training or other dimensions of the project.

Alexandra: We did involve student researchers. We had a total of eight Duke students who supported the project in one way or another. I was really impressed. I was astounded actually by how responsive Duke students were to the idea of devoting at least a portion of their winter break to this project. We went down in two different groups. There was one team that went down before Christmas. We did leave the field during the week of the Christmas holiday because not only did we have commitments, but we felt like a lot of our subjects would be otherwise engaged. Then we came back right after New Year's with a different group.

In both cases we were staying in a big rental house which was great because it meant we were able to meet together as a team when we weren't collecting data and talk about how things were going, what worked, what hadn't, what did we need to do to keep the project moving forward. The first

team really was there laying the groundwork, looking at where we were going to be parked, thinking about distributing flyers. We went around and just talked casually to people, we didn't actually have permission yet to be gathering data from subjects. We weren't doing that.

We'd eat lunch in a local restaurant and just talk to the people there asking, "What was the flood like? What did you experience?" That was really useful because it helped us understand that we needed to think not just about how the flood had impacted people's homes, which we had considered, but also how it affected things like their opportunity to go to work, their kids' abilities to go to school, and that kind of thing. It helped us really fine-tune our survey instrument and add what I think were some valuable items to that.

Then the bulk of the time in the field we spent in that research mobile talking with and surveying subjects who had come in to talk with us. As you mentioned, and as Betsy was talking about before the break, people often did come in in families and we were challenged by how do you deal with, let's say, a parent and maybe a grandparent and two young children coming in. The children aren't there as research subjects, but they know that we're researching the flood, they experienced the flood. They want to talk to us about the flood.

We had a table set up for them, we had coloring books, but we did often find ourselves just chatting with them about their experiences and hearing about what they had lost, what they missed, what had worked well for them in terms of how their parents had helped them or their grandparents had helped them think about what had happened. That really was very challenging because I'd say this was every age, from about 3 on up through maybe 12, 13, 14, were talking with us and obviously bringing very different understandings and perspectives. The students were just great. They really were. They were good about engaging the kids. They were good about listening to them without pushing them into uncomfortable places but acknowledging uncomfortable topics. Then we did have the advantage, I guess this is just Murphy's Law, but subjects research participants would come in waves, no pun intended. We'd have times when we were really, really busy and then we'd have times when it was very quiet. We would again take advantage of that to talk about, "What are we seeing? What did we expect? What didn't we expect? How can we respond better with the next group?"

Brian: You talked about parking the research mobile. Where did you end up finding a place? It sounds like a large vehicle. How did it work?

Elizabeth: A couple of weeks before we went down in December, I went down and basically canvassed Columbia, looking for places that I thought the research would fit and started making just cold calls, going to Target saying, "Hey, may we park here?" Luckily, the Piggly Wiggly down on the south side of Columbia was vacant and the owners of that lot were very willing. I'm very thankful for their willingness to let us park there.

Brian: That's great. It's the first appearance of Piggly Wiggly on the show. It made research happen; that's excellent. Well, it really helps to visualize what you're all doing over there that winter break. I want to talk a little bit more specifically about what you actually found. Elizabeth, what did you learn and what did you both learn in talking with the residents there?

Elizabeth: It's a great question. One thing that we're still nailing down as we go through the transcripts and clean up the survey data is that we'll continue to survey and we will do another survey in July of folks who were willing to be surveyed again. Thinking back to listening to the stories that we heard, one has a feeling of not being prepared. I know one quote that strikes me is an individual saying, "If a flood happened today, I still don't know if I would feel prepared." It was a lot of rain, but it was also a lot of dams that blew out and so there were large masses of water flowing downstream from these creeks that typically don't have much water in them.

One example is a man I spoke to who lived in an apartment complex, and he was with his daughter and was trying to get out, but the electric gate didn't work because of the floodwater. All the cars were stuck in the complex and they literally couldn't get out. The amount of water, up to people's shoulders, was unprecedented.

Brian: Actually, that's a question I'd wanted to ask and I'll ask it now just briefly, in terms of thinking about planning, before disasters. Generally speaking, Elizabeth, what's your perspective on human decision-making regarding preparedness? Are there some general things that you've come to realize, both through this experience and your work more broadly?

Elizabeth: That's another great question. I think there are different levels of preparedness. There's household preparedness. I think people think about that as, "Okay, I'll have some water on hand, I'll have a flashlight, et cetera," and then there's community level preparedness, thinking about being able to construct places for people to go to, —schools if they were flooded out, et cetera. The community level preparedness is just as key. I've

found in all of my research that what's critical to this preparedness is the presence of what we call, in the social sciences, social capital or strengths of networks, the ability to rely on your neighbors to help in these situations to get people out.

In Columbia, by and large, I heard very positive, neighborly, comments; everyone was helping everyone else. It wasn't a looting type "Let's take advantage of the situation," but more, "Let's work together in this very devastated place."

Brian: Great. Now, we'll talk a little bit about the period before and then in the midst of the flooding. I imagine that in the wake of a disaster, there are complications for a long time. As people think about issues like insurance and dealing with other agencies, what were some of the findings that you encountered in terms of complications, or the types of complications, that people were facing in this circumstance?

Elizabeth: A lot of the frustrations we heard from the flooded residents were about reimbursement in terms of getting replacements for the items that they lost, whether that's the home structure itself, or the furnishings inside it. A lot of people were very frustrated at the limited amount of money that they were reimbursed for basically their whole life's goods.

Brian: They must be just devastated, no doubt. They have a number put on the value of their belongings and that, I imagine, is psychologically challenging for people too. Well, speaking of the people that you were working with, Alexandra, have you or representatives from the group had an opportunity to reconnect with any of the study participants or folks in general in South Carolina outside of the context of data collection?

Alexandra: I do know that Betsy went back down over Martin Luther King weekend and did another data collection exercise with a church that had approached her. Other than that, at this point, as mentioned, we are planning to recontact those subjects who are willing to be resurveyed and we're planning that, but we haven't done it yet.

Brian: There are limits to the study protocol, but then eventually it sounds like there may be an opportunity to address findings of the report to the community.

Alexandria: That would be my idea, to go back down and engage in conversations with community leaders, with community members.

Brian: Maybe family members or others are in our listening audience now. You're partly getting the word out that way in telling their story so we really we appreciate you doing that.

Alexandra: We appreciate you having us on. Thank you.

Brian: It's great. Let's talk a little bit about the future here. Alexandra, as we think about students who might be listening to today's program and be inspired to jump in and do this work because these issues are not going anywhere, this is a central story for the next coming decades: What should today's students be doing to better prepare for a future in which we see natural disasters regularly affecting society in everyday life?

Alexandra: Well, I think something that students need to do—4 years isn't a very long time. Most of the students who worked with us on this project were undergrads. We had one Master's and public policy student, of course, that's just a 2-year program. I feel like when students get to college or, perhaps, when they start their grad programs, they really need to start talking immediately to faculty. I have to say, the Duke faculty are incredibly approachable, but I think that's true of faculty pretty much everywhere. I know it's been true at the different places I've been, students need to come in and not just say, "What are you researching that I might be able to get involved in?"

   Obviously, that's a great question, but also, "What skills do I need to do that?" It is often a little bit of statistical training, it might be some software skills. Another thing, honestly, for our students was just the willingness to commit some time to it and also to put themselves in an uncomfortable situation, not a bad situation, and be willing just to jump in and do it. I wish one or two of them were here to talk to because I think they'd be able to shed some great light on this question.

Brian: That'd be great. A real theme here today is all of the effort and preparation it takes to be able to respond in a moment and whether it be a student planning to engage in this work, or you all planning as researchers. Okay, well, we're just about out of time for today, but you've done a wonderful job of detailing your story here. We look forward to hearing more about this in the future. I want to thank each of you for taking time out of your very busy schedules to join us. Elizabeth, thanks for being with us today.

Elizabeth: Thank you, Brian. It's been fun.

Brian: Excellent. Then Alexandra, we really enjoyed having you as well and appreciate you joining us.

Alexandra: You're welcome. Thanks for having us…

Implications for Researchers

- Weather-related hazards and disasters affect not only physical terrain but also social dynamics.

- Social science research related to weather-related hazards and disasters requires both rigor and flexibility, and a balance between planning ahead to have key measurement tools in place and the changing circumstances of communities as they face physical stress.

- Researchers working on social aspects of weather-related emergencies should plan for unexpected challenges to data collection to the extent possible.

Suggested Reading

Albright, E. A. (2011). Policy change and learning in response to extreme flood events in Hungary: An advocacy coalition approach. *Policy Studies Journal*, *39*(3), 485–511. https://doi.org/10.1111/j.1541-0072.2011.00418.x

Albright, E. A., & Crow D. A. (2015). Learning in the aftermath of extreme floods: Community damage and stakeholder perceptions of future risk. *Risk, Hazards and Crisis in Public Policy*, *6*(3), 308–328. https://doi.org/10.1002/rhc3.12085

Albright, E. A. (2020). Disaster-driven discussion. *Nature Climate Change, 10*(1), 12–13. https://doi.org/10.1038/s41558-019-0664-9

Children and Natural Disasters (2018)

The process of conducting and publishing research can sometimes take a considerable amount of time. That process is not always apparent in reading a short summary of research or a journal article reporting results. This episode features Lori Peek, who spent almost a decade working on her study of children affected by Hurricane Katrina, which made landfall on the Gulf Coast of the United States in 2005 but which continued to have effects on the people who lived there for years afterward, which she traced and documented. That long journey resulted in a book entitled Children of Katrina *(Fothergill & Peek, 2015).*

Brian Southwell: Lori, 7 years of research plus several years more to finish writing, it's a long time to work on any project. Do you ever think back to the summer of 2005 and think about, at that point, whether you ever anticipated working on a project like this?

Lori Peek: Yes, that is a really good question. I have to say, even listening to your introduction is bringing me back, and I'm sure your listeners too, to that August of 2005 when Katrina happened, it really gave me chills just listening to that. To your question about whether I anticipated working on a project like this, it is a good question

Before Alice and I launched the Children of Katrina project, we had actually both done somewhat long-term studies after other disasters.

Alice and I met in graduate school. We both did our PhDs in sociology at the University of Colorado Boulder. Alice actually studied women after the 1997 Grand Forks flood. She ended up writing a book called *Heads above Water,* about women and disaster, and gender issues and disaster. Then, when I was in graduate school, I ended up doing a long-term study of Muslim Americans after 9/11.

She and I both had experience with doing post-disaster research, with studying populations that are marginalized during non-disaster times. That's how we ended up coming together so quickly after Hurricane Katrina and launching this project. I should say that when we launched the project, I don't think either of us anticipated that it would end up becoming really a decade-long project. As you noted, we spent 7 years in the field collecting data. Then an additional couple of years writing the book after we'd formally finished data collection. We really began this project on children after Hurricane Katrina as a quick response project.

We had received grant funding: a small grant from the Natural Hazards Center. They have this small grant program called the Quick Response Grant Program, where researchers can apply for and receive small grants to help you go into the field soon after a disaster to collect perishable data. That's how we started the project. We were on the ground by early October 2005. About 4 to 5 weeks after Katrina made landfall, we made our first trip to the Gulf Coast.

We learned so much during that trip, and were so deeply moved by the children and the families that we met. As we came back and started analyzing and writing up that first round of data collection, we had so many more questions that emerged from that initial field investigation. Also, we were so inspired and moved and troubled by the things we saw and the stories we

heard that I think Alice and I knew it was going to be a longer-term study. I can't say that we knew at that moment that it would end up being a decade-long study.

Brian: Right. We're certainly all fortunate that you've spent the time to do that. I think there is a tension sometimes between the pressure to quickly respond and to get the papers out versus the longer period of time that's necessary really to learn all that you have. It's heroic work. I'm curious, now having worked on some of these long-term projects, when the project is done, and the book's out in the world, and it's a couple of years removed, do you ever miss the sense of immersion that you must have experienced while you were actually doing the research?

Lori: Yes, that is such an interesting question. Actually, as Alice and I worked on *Children of Katrina*, we started to recognize that it was time to bring the project to a close because we knew we really needed to transition to start focusing on writing the book. Also, that was such a difficult moment, because it wasn't like Katrina just magically disappeared from people's lives, or that the children we were studying somehow reached this magical day where everybody said, "Okay, yes, everyone is recovered now," because that disaster continues to unfold in people's lives in many, many ways.

One of the things that we grappled with as researchers, and I think a lot of researchers who do these long-term projects also grapple with, is the tension between publishing along the way and making sure that you're analyzing data and getting the findings back to your participants and out into the world while also keeping a longer-term project going. Even more than that, I think what we really grappled with was an ethical question about how do we bring a project like this to a close when children and their families have welcomed us into their lives so wholly and have allowed us the opportunity to observe family and school events, and to go to church on Sunday morning with the families, and to attend graduation ceremonies, and all of the things that we really had the gift of watching after Katrina.

How do you think about bringing your project like that to a close? That's something we write about in the book that we called "closing rituals." When year seven came around, and we knew that we were going to do our last formal round of interviews with the participants, we went through several closing rituals to close off the study and let the participants know, "Okay, we're moving into book-writing mode, is there anything, any final things, you want to share or say?"

We also let the participants know that when the book was finished, we'd be delivering a copy to them. There were a lot of things like that, that we did to close out the research. The short answer to your question, do we miss the immersion in the field? I think yes, absolutely, because speaking for myself, I miss the regular contact with the participants in our study because their stories were so moving. They taught us so much as researchers, so I definitely miss it, but also have had the opportunity to begin some additional projects that the Katrina work really sparked for me. That immersion in the field is so critical, but so is the time to move away from the field and begin that processing of the data, and really, the writing process is so important as well. I guess it's a both/and rather than an either/or.

Brian: It's clear how passionate you are about this and the impact that it's had on you as a person as well. Let's talk just for a minute about that. I certainly want to encourage people to go out and read every page of your book. Let's talk about it generally, because one of the most important themes to emerge from the book is a very keen insight, I think. It's that, as we make judgments about what it's like for children or families to go through storms like this, those judgments are probably wrong. Typically, what people do is either assume the absolute worst in terms of the overwhelming trauma of the event and how debilitating it is, or there's this emphasis on kids' resilience and how kids generally bounce back with no complications. Reality, as you found, is probably much more complicated than that, right?

Lori: Yes, that was such a perfect summary some of the myths about children that we introduce in the beginning of the book. We talk about these ideas that oftentimes people hold about children in disasters. On the one end of the spectrum, as you noted, there is what we call the vulnerable victims. This is the idea that children are just somehow inherently and always completely vulnerable and rendered helpless in the event of a disaster. Then at the other end of the spectrum is this idea of resilience, the idea that, "Oh, children are so resilient. They're just like little red rubber balls, and they'll just bounce back after a disaster without any additional help or support."

It's really fascinating how often Alice and I actually heard people really making these assertions about children, that they're either completely vulnerable or they're these little red rubber balls that are just totally fine in a disaster. Of course, the reality is much more complicated, and whether children are able to "bounce back" after a disaster is of course shaped by their pre-disaster circumstances.

Children who are running on empty, so to speak, who are already living in highly precarious situations, already living in disadvantaged contexts, when disaster strikes, they may have far fewer resources to be able to bounce back. We need to think about the pre-disaster circumstances for children to understand how their post-disaster lives unfold. We need to really think about what happened to them in the disaster event itself. Were they able to evacuate with their families and get totally out of harm's way? Some of the children who are literally left behind in disaster may experience life threats, may see people around them who are traumatized in various ways.

What unfolds in the actual disaster also affects how children's lives unfold. Then, of course, the recovery process. What are all the social forces and factors that influence how children do or do not recover, and at what rates do they recover after a disaster? Those social forces and factors were what we were really interested in, peeling back the layers of the onion to understand how do family factors, how does the school setting, how do peer support networks and adult support networks, how does access to healthcare, how do all these, again, social forces and factors, inform children's recovery?

The story is much more complicated than children just being completely vulnerable or being really resilient. The book was trying to explore what are all of the different forces and factors that may influence children's pre- and post-disaster experiences.

Brian: What's crucial about that is that you know that it's not just the event itself, but it's everything that was in place before that. Also, our response matters, and the resources that are provided matters. It suggests that there are ways in which disasters as they unfold are alike, but there also are ways in which they differ, and that people experience them differently as well…

Brian: Lori, I want to think about the last year or so. The book has been out for a few years, but obviously we're still beset by all kinds of news around the world. I imagine you spend a lot of time, especially over the past fall, thinking about Puerto Rico, for example, and Houston and other areas that have been affected by storms. Do you find yourself, when those stories are in the news, heartbroken over how similar the story seems to be, with these new hurricanes, or are there really important contingencies and differences between some of these newer or more recent situations and what you learned about Katrina?

Lori: Thank you so much for asking about this last disaster season because it was indeed so catastrophic on so many fronts. Yes, absolutely, I have been

following really closely what's been unfolding in many of the communities that have been struck low by fire and flood, hurricanes, and earthquakes this past year. It's really interesting what you ask about the similarities and differences. For hazards and disaster researchers, some people have this saying:, "If you've seen one disaster, you've seen one disaster."

Every disaster is unique, and it's locally specific and so forth. Also, as researchers, we know that there are trends and patterns that we continue to see across time and place with hazards and disasters. I'd like to bring up two points, something that is similar to Katrina that is very concerning to me, and something that's been very different in this past year. The one thing that is similar to Katrina, where I'm going to draw a Katrina and Puerto Rico parallel that has been very concerning to me, is, after Hurricane Katrina, hundreds of thousands of children missed school, because the entire school system in New Orleans was closed down for a period of time after the entire city was under a mandatory evacuation order.

Then we know, even a year after Katrina, some hundred thousand children still were not in stable school environments. I'm very concerned with the ongoing power outages, with the school closures in Puerto Rico, with the number of children who are still either out of school, or just aren't back into a regular school routine. Because children's number one job is to learn. What disasters do oftentimes is disrupt the ability of children to be in a classroom and to be doing their job, to be learning. That's something that is an eerie and concerning parallel between the 2005 and the 2017, and ongoing, disaster season. Something that I think is very different to that is heartening, is that during Katrina, over 5,000 children were actually separated from their parents and caregivers.

In fact, the last child was not reunited with her family until April of 2006, months after Hurricane Katrina happened. In the 2017 disaster season, we did not see nearly that number of children being separated from their caregivers, and organizations like the National Center for Missing and Exploited Children, Save the Children, and other groups that are really concerned with child protection have done a lot of amazing work in the years since Katrina that I think has helped move the needle in terms of ensuring that the children are not separated from their families and caregivers in the event of a disaster. Those are just two points.

We could make many more, but I think the question you ask about the commonalities and differences is key. I think for us to advance disaster science it's really important for us to do those kinds of comparisons across

these events which are indeed unique. Also, if we're going to advance our field and really learn and translate knowledge in meaningful ways, we also need to be looking for the similarities.

Brian: Yes. I really appreciate that vantage point. I'm also always curious, Lori, as we talk about the research on natural disasters. I'm interested to know what people who are immersed in this think about that phrase. What do you think about the phrase "natural disaster" as a way of describing an event like Katrina? Is it fair for us to use that phrase based on what you've learned?

Lori: Brian, if you could do something to strike a collective nerve with disaster researchers, I think this question about "natural disaster" is one of those terms that strikes that nerve. I acknowledge, I am the director of an organization called the Natural Hazards Center, and I'm getting ready to take on a question about natural disasters. Many people may say, "What's the difference? You're directing a Natural Hazards Center. We call them natural disasters."

In our field, really, for decades, social scientists writing in this space have been making the argument that there is no such thing as a natural disaster. They make this argument because it is indeed true that, of course, there are natural hazards in our world, there are earthquakes, and floods, and fires, and landslides. Those are natural hazards, but when it comes to the disasters that cause widespread community disruption, we argue that there is nothing natural about the disaster part of that, that oftentimes when we see catastrophic events unfold, those are the direct consequence of very human decisions and decision-making and actions.

That's why if you even Google "there's no such thing as a natural disaster" there are books by that title. There are journal articles by that title, because scholars in this field have really tried to push back on the notion of a natural disaster, not trying to be pedantic about it or anything, but really, if we say natural disaster, it takes away the human agency and it dismisses the fact that we do have a role in generating disasters, but also that we could have a real role in reducing disasters through our policy actions. It's a big topic, and thanks for asking about it.

Brian: No, I'm glad. Yes, and we can stand corrected or even adjust the way that we talk about it here because that makes a lot of sense, and I think that is a very valuable viewpoint. At the end of the day, the disaster is the key part and we need to understand all that goes into that and think about causing and recovery.

Lori, I want to also talk about method here for just a second. Something that you and Alice are able to do in the *Children of Katrina* is to bring life stories to readers as they unfolded across several years. Doing that offers a really different vantage point from, say, a one-time newspaper article a couple of weeks afterwards. Do you think ultimately that it did end up being quite worthwhile to take the longitudinal approach that you did?

Lori: Absolutely, and we were so thankful to have the opportunity to be able to follow children's lives over time, and something that Alice and I would pause and say to ourselves so frequently over the course of the study was, "Wow, if we would have stopped it year one, or year two, or year three, we really would not have captured the nuance and the complexity of how recovery actually unfolded in these children's lives." In fact, the longitudinal approach that we took with our data collection really became central to how we organized the findings in the book. We organized the book around these three post-disaster recovery trajectories, so we introduced the idea of a declining trajectory where children experience this downward spiral and cumulative vulnerability after the storm.

Then we have this finding equilibrium trajectory where children also experienced some period of downward decline after the disaster, but they were able to regain or attain a new form of stability after the storm, and then there was a final trajectory that we introduced that we call the fluctuating trajectory. These were the children who weren't completely on the decline, but they weren't able to find equilibrium either because they had some key component that was missing in their life, but they also had an anchor who was keeping them from going fully on the decline. We really wouldn't have been able to introduce or explain those trajectories if we wouldn't have had that opportunity to really observe and interview children and their families over such a long period of time.

Brian: That's great. In terms of thinking about personal trajectory and longitudinal perspectives and history, I'm also curious, Lori, how you've evolved as a scholar; 2005 is something of a punctuating year for you, because that was also the year you'd finished your doctoral dissertation, and now you've been out in the world in different capacities, these 13 years or so. I'm curious; during that time, what's been most surprising to you as you've continued to explore and work in this area, and work and train with students, and interact with colleagues, as you reflect back on a dozen or more years of doing this type of work. What's been most surprising?

Lori: I think, how much we know and also how far we have to go with this work, and I think that captures both what is most heartbreaking and most compelling about doing disaster research. You see these common things that are happening. You see, okay, these groups are disadvantaged during non-disaster times, and then they experience this consequence, whether it's death, injury, displacement, disproportionate dollar loss, whatever that impact is, we continue to see that time and time and time again.

I think the consistency of it all is surprising in some ways, but it's also what is so compelling, and what really drives me because I know, okay, if we know this, if we really know this, this is a social fact, then the question becomes, what can we actually do about it? Something that I'm really, really interested in moving forward, is thinking about how can we institutionalize change at everything from a micro level all the way up to the macro policy level? How can we institutionalize change so that we can actually engage in vulnerability reduction?

Here, I'm not just talking about really making sure that we are helping people during the emergency period and making sure that we're saving lives and reducing harm during that emergency moment, but how can we also think much more deeply about the social roots of risk and vulnerability, and see if we might be able to move the needle to ensure that there are fewer people in harm's way the next time, because there is going to be a next time. I think that's what I've been thinking a lot about in this decade-plus since launching the Katrina project.

Brian: I can relate to that. I appreciate that perspective quite a bit. If you think about it in a way, we live in a chaotic world, and this notion that there are aspects of it that are knowable, that are predictable, even though they're heartbreaking, I suppose there's something in that that is heartening, in a sense, and it does really give us a sense that all this academic work and research is worthwhile. Now, the question is what can we do to build on that and to leverage it, and actually put it into practice. Your work is certainly shedding light on these very important aspects of the disasters that we all face and that our neighbors face, and that our children face, Lori. We're just about out of time. Thank you so much for sharing all of your work and your stories with our listeners today.

Lori: Thank you so much for having me and thank you for everything you are doing to bring science into the public sphere. It's really important, and I'm honored to be a guest on the show.

Brian: We really appreciate that, Lori. Thank you so much…

Implications for Researchers

- Longitudinal research can offer insights that cross-sectional research that occurs only at one point in time cannot.

- Disparities between people can exist both in a single moment in time and in the trajectories—or growth or decline or change—that people experience over time.

- Following the experiences of people over even a short period of time can be resource-intensive.

Suggested Reading

Fothergill, A., & Peek, L. (2015). *Children of Katrina*. University of Texas Press.

Ocean Protection and Social Intervention (2019)

Waves have crashed on beaches for a very long time, but in the past century we have seen dramatic changes in the health of oceans. Human intervention has played a role in that, and human intervention could play a role in protecting oceans in the future. This episode features David Gill, an ocean conservation expert and faculty member at Duke University's Nicholas School of the Environment.

Brian Southwell: I want to spend a lot of our discussion talking about possibilities for intervention and the social dynamics related to that. I actually want to start first with the scope of the problem. For a listener who hasn't, for better or worse, been reading the latest news coverage about the health of our oceans, what are some of the most important facts about the changes, and particularly the negative changes that we've witnessed in our oceans in recent years that the people ought to know about as a way of justifying this conversation?

David Antonio Gill: This is actually a pretty timely conversation because just recently, the International Panel and Intergovernmental Panel on Climate Change released an ocean report, and it's not looking good. As you said, our oceans are undergoing dramatic change. This is change in terms of the life in the ocean, where there are changes and some losses in the numbers of fish. There's also an increase in the amount of pollution entering our oceans.

With climate change, we have massive changes in circulation of the oceans and the frequency of intense storms. This is having a lot of severe impacts on the marine environment, but also on the coastal communities that live close to the ocean and depend on it. These changes are impacting local economies, their cultural traditions, are causing displacement, and also incurring serious psychological impacts on a lot of these communities.

Brian: There are so many dimensions of this to talk about. A lot of your own work involves engagement with large scale data sets that can help us know about the state of the oceans. I want to talk about that, but I also want to talk a little bit about your own journey to become a researcher, partly because it started with your own observations of an ocean. This happened as a boy. You grew up in Barbados and actually, as it turns out, you're calling us from Barbados today. I'm just wondering if you can tell us about that experience a bit. Correct me if I'm wrong, but my sense is that had some inspiration for you in terms of doing the type of work that you're doing now, right?

David: Yes, so definitely. I was one of those kids who was glued to the TV screen watching Jacques Cousteau and the Calypso and documentaries, and then I would walk down the hill to the beach. On some morning walks with my family, I would often end up getting sea urchin splinters in my feet [chuckles]. It was a long and painful process to get those out.

Then after a few years, I noticed that I didn't have to worry about that anymore because the urchins started to disappear. Only maybe 10 years later, I found out that there was actually a Caribbean-wide die-off of sea urchins that had huge impacts on coral reefs and the ability for corals to grow and thrive and outcompete the algae on the reef. All these changes were happening, and so while I actually spent some time away from the island, I actually learned a lot about the changes that were happening at a global scale that I saw happening back home.

Brian: Gosh, what a tragic story in a lot of ways. I'm interested here. Part of your own training happened at the University of the West Indies. It's a place where there's a physical sense of the ocean as part of everyday life. I'm curious about your own experience as a renowned researcher, working in lots of different communities around the world as you talk about your work.

People come from different backgrounds to do work in this arena. I'm just curious if you think that the physical immediacy of the ocean can offer researchers who are working on these abstract issues a different perspective

on the work that they're doing relative to maybe people that are operating at more of a distance. What's your own sense of that?

David: I would say definitely. The sites that we'd go to to survey the reef cells are the same ones that I would do my Sunday afternoon snorkels over. You really are able to see things that you would not have picked up in the data, or when the person that you do your socioeconomic interviews with is the same person you buy a fish from, or the guy that goes fishing with your grandfather, you'll learn a whole lot more about what is happening in the ocean and the reasons why we're seeing some of these changes that is really hard to pick up in a global data set.

Even now being based at Duke University, I do notice that I am missing a lot of the nuance, and so I've made it a critical part of my work to collaborate with local researchers as much as I can, because they're the ones on the ground seeing the changes that are happening, and the ones that have the really relevant questions that we need to answer.

Brian: Absolutely. Actually, we could spend our whole time talking about some of the disturbing changes that we've seen. There's a lot that you write about that offers a sense of hope and optimism now as well. Part of the challenge that we face is that people don't always have a sense of the scope of the problem. I also don't think that people have a sense of at least some of what we've done to start to address it, and the efficacy of some of that. I want to talk about that in this first half of the show a little bit before the break.

Something you've looked at, for example, is protection efforts. I think you've got at least some—I don't know if we'd the use word phrase "good news," but I think there's some positive news there that suggests that protection efforts not only can be implemented in a practical sense, but that they actually seem to have some impact. We've seen in recent years at least a fair amount of protection happening in terms of public policy, right?

David: Yes. As we talk about the massive changes that are happening in the oceans in terms of the wildlife and the chemistry of the ocean, there've also been dramatic changes in how we govern or manage the oceans. Over the past two decades, there has been such a huge effort to come together at the global scale. We're all the way down to local scales to conserve and manage our oceans. One of the ways that we're doing this is through establishing Marine Protected Areas (MPAs).

We're designating a certain section of the ocean where the primary objective is the conservation of marine biodiversity. Within the past 10 years or so, we have quadrupled the coverage of the ocean in MPAs. Part of the motivating factor behind this is that we know that climate change is having huge impacts globally, but by managing our oceans locally, hopefully we can address some of the local stressors, the pollution.

If there's unsustainable fishing or damage that's happening to the habitat, by buffering against these local threats, maybe we can let our marine ecosystems have a better chance to fight against climate change. Right now, we have roughly 8%, or 28 million square kilometers of the ocean, within MPAs.

Brian: That's an important change. I'm not sure people quite realize that. Could you walk us through an example of what it might mean to designate an area as protected? In real consequences, what happens there, just to give us a sense of physically one of the places where this has happened? Are there any examples that come to mind that might help to illustrate this as a policy mechanism?

David: Yes. This, again, happens across different scales. We have, for example, the Ross Sea, which has just been designated. That is right now the largest MPA at roughly 2 million square kilometers. That involves various government partners to design and implement a policy. It takes many years of negotiations to establish these in the US as well. Currently, there are roughly almost about 40% of US waters, mostly in offshore territories, that are within MPAs.

I want to pronounce the name of the one in Hawaii, but I don't want to butcher it [chuckles], but it's the Papahānaumokuākea Marine National Monument. That was a huge effort of collaboration with different government agencies as well as the local communities.

Brian: Where is that?

David: That's in the northwest Hawaiian Islands. That one is about one and a half million square kilometers. What was interesting with that one is that there were a lot of negotiations. It was an opportunity as well to talk about some of the spiritual and cultural importance of uses of that area. Those are some of the larger MPAs.

Then all the way down to some places in eastern Indonesia, in Raja Ampat, where communities have come together and decided that in the waters directly opposite their village, they're going to make a *sasi*, which is a cultural

tradition where they prohibit fishing activity in the waters where they have ownership. Even down to that level, we see these MPAs making a difference.

Brian: Well, it seems like part of the negotiation, or part of the discussion, then, sometimes can invoke certain aspects of culture, right? Isn't it necessarily always the case that's made on the basis of what the biological impact is going to be? Sometimes it can be part of a discussion about our relationship to the earth, or what we ought to be doing. It seems like this discussion is one that's had by society partly about how we interact with each other. That might be a surprising part of this for people who have been tracking it. Is that fair to say?

David: Yes. When it's done well [chuckles], it does involve that conversation between the global agencies who want to conserve marine biodiversity. Then what others call the frontline communities, those who are on the ground, that biodiversity is their backyard that they have lived on and used for centuries. Unfortunately, there are cases where they have been excluded from the conversation and been seriously negatively affected by efforts to conserve marine ecosystems. This is why, in a lot of our work, we advocate for the involvement of the leadership of these communities in guiding how conservation should happen in their backyard.

Brian: David, we talked a little bit about recent ocean protection efforts in which parts of the ocean are designated as protected areas. It's really noteworthy this is happening, that it's happening to a greater extent than people maybe realize, but I want to talk about its potential effects.

Does any of that seem to have had a discernible effect? Part of the question is, how can we know? What do we know about evaluating these types of efforts? Is there any evidence to suggest that we've had some positive impact through these efforts?

David: Yes, there is definitely a lot of strong evidence to show that MPAs have led to the recovery of many marine populations, particularly overexploited fish species. In areas where there's been heavy fishing, by restricting fishing use, these populations are able to recover. There is less evidence as to the impact on some other species, but definitely for fish. There's conclusive evidence that we do see recovery there. Social impacts are a lot more fuzzy [laughter].

Brian: How so? In terms of, we're not necessarily seeing economies bounce back? What's your sense of that?

David: Yes, we've seen mixed results. In cases where we've seen positive benefits, one good case study is from MPAs that were actually started because local communities wanted to protect their waters. Because of that, they saw fish stocks recover, they saw their catches improve. Some communities in the Philippines and others in Southeast Asia saw economic benefits from tourism. On the other hand, in cases where local communities were excluded, we've seen instances where they were denied access to their only source of income. That has resulted in awful effects and economic hardship as well as increased food insecurity in some of these areas. The way we implement policy really makes the difference with social impacts.

Brian: Yes. What's crucial about that is you're pointing out that we've got this potential intervention, this notion, this tool, this policy tool, but it's not monolithic. It's not as though you just pull one of these off the shelf and then implement. You have to think about, under some circumstances, how a certain approach might be better or worse depending on what the social dynamics are there, what the specific circumstances are there as well.

One of the other challenges in this arena, as you think about evaluating these, I imagine, is that looking ahead in terms of a time trend and looking at effects over time, you already outlined some of the negative trends that we've seen. It could be viewed as a victory or a success to just have at least less of a bad future or to somehow change the curve in the line, but that might still look like losses under some circumstances, too.

I'm curious about that from a public communication standpoint, if you ever have challenges in terms of that nuance in talking to people about this, that some of what we might be talking about is still going to not be good, but it's going to be less bad than it would have been. What's your sense of all that?

David: Yes, so measuring the impact of a policy is really hard [chuckles], because it's not only looking at what we can see now, but we want to compare with what would have happened if that policy wasn't there. We call that the counterfactual. Because we can't see it, really we don't fully understand what would have happened if we did nothing at all, and there's a lot of number crunching and a lot of research that needs to go into really get into robust check at measuring impact.

We can have positive impacts in different cases , I would say there are probably three different scenarios where you can see that. For example, within the MPAs, we see an improvement in habitat, and everyone says, "Yes, that's positive," whereas everywhere else has declined. There could be a case

where there is recovery inside and outside but the recovery inside is much faster, so that's a positive impact as well.

Brian: I see.

David: Then the case that you brought up where everything is declining but, because of the policy, the declines have been slowed or buffered, we would consider that a positive impact. It is really difficult to communicate what would have happened if the MPA wasn't there or the policy wasn't implemented. I think perhaps involving people in the conversation when we do our monitoring and evaluating will help, I think it's going to be a communication process.

We're about partnerships with the people we're trying to engage as opposed to us doing science and coming out with the reports, because we have a lot to learn from the people who we want to engage on these issues as well.

Brian: Absolutely. It's this notion of us dealing with the past and the present and the future, and so much seems uncertain at the moment. I'm just curious if there have been, again looking for some hope and optimism here in the terms of public engagement, examples of situations where the best scientific forecast as to the current trend was not looking good and that, over 10 or 20 years, surprisingly, we took more steps than we thought we were going to, or there was policy implemented and the forecast was off a bit because we didn't realize that actually this was going to have some multiplicative effects, positive effects.

Are there any positive stories there when it comes to ocean conservation, of a situation where a coral reef bounces back further than we thought it would, or where actually there's a success story and it suggested that some of the dire discussion we were having was appropriate because it's where we were headed but that actually we were able to make unanticipated, even positive impacts? I don't know if any examples like that come to mind. I know it's hard to think about that.

David: Yes, you're right in that we definitely need action on climate change boldly, that is a must, because we are already seeing many of the next impacts on the marine environment, but mostly on the people who are bearing the brunt of these impacts. Yes, we have seen cases where local efforts have actually caused a measurable impact and, as you said, just changed the trajectory.

Some other researchers do come to mind. For example, Duke's Brian Silliman and some PhD students at the laboratory have found that even simple measures such as removing the coral-eating snails [chuckles] can help corals be more resilient to climate and shocks such as heatwaves. We had cases where severe bleaching in the Caribbean wiped out 90% of the corals. We see some areas where they have been regrowing, and some other marine habitats that are surviving in some of the most adverse conditions and polluted waters.

Yes, there is hope. We can't just sit back and see this as a sinking ship. There are local efforts to make a difference. I think it's true that partnerships where those who live on and depend on marine resources are able to take leadership in working with scientists, working with other partners to design and implement management, that can help them to be more resilient.

Brian: There's a lot that's really inspiring in that, in terms of thinking about possibilities for social engagement as well that might have other effects, bringing us all closer together as well. In the last few minutes that we have here, David, I know that in any scientific area there often are lots of unanswered research questions, looking ahead, things that we need to get answers to, questions we've just recently conceived of and we need to try to figure out ways to get evidence for those. What are some of those questions in your arena? What are some things you'd like to have answered in the next decade or so that we haven't been able to fully answer yet?

David: Actually, the next decade is actually the United Nations Decade of Ocean Science and so in 2020, there're going to be a lot of decisions being made as to how we want to move forward and manage our oceans in the next decade. What I see are the big knowledge gaps—what information can be put in the hands of decision-makers, what evidence for how we manage the oceans. For example, how can we implement MPAs in such a way that they provide joint benefits to both local communities and marine biodiversity?

We have the evidence on the impacts on marine ecosystems. It's quite clear but, social impacts, we really need to get a handle on so that we help communities, we can help build their resilience to change as opposed to erode that resilience if we don't consider the potential negative impacts of some of these policies.

I would say definitely one of the questions is understanding how we can manage intervention such as MPAs to bring those joint benefits,

particularly for the marginalized groups and in areas where it's indigenous groups for women, and for other minorities who are disproportionately affected at times by higher-level policies. How can we ensure that they aren't left behind? How can we work together to provide some of these practical and scalable solutions that recognizes the differences in context, and recognizes and actually builds capacity of the local communities to take charge, where we enable them to be leaders and the stewards of the ocean?

Brian: It might be a matter of somebody doing a different job, playing a different role, but them being a crucial part of the equation. There should plenty of work that needs to happen here, and so maybe we can invite some the folks most affected to be part of leading the change as well. It's taken a lot of creative work but it's inspiring to think about it too.

Well, David, we are just about out of time. I and my listeners thank you. You called in today from Barbados, and I know it's a challenge to do that. I'm hopeful that we put a bit of a spotlight on your really important work. Thank you for taking the time to join us for a discussion today.

David: I thank you. On the lines of a measure of hope, as I was flying in over the island today, I was able to look out the window and see this distinct coral head of the species that was actually wiped out in most of its coverage around the Caribbean. To fly over and see that coral still there, that flyover, it does inspire hope.

Brian: Gosh.

David: Thank you so much for inviting me here.

Brian: Yes, thank you. What a great image to end on…

Implications for Researchers

- Two fields that might seem disparate, such as marine science and social psychology, can offer important insights relevant to the other.

- Marine conservation efforts that restrict human activity can have positive effects on the abundance of marine life.

- Marine conservation efforts potentially can have effects on local economic activity and social interaction but measuring those effects requires effort.

Suggested Reading

Gill, D. A., Cheng, S. H., Glew, L., Aigner, E., Bennett, N. J., & Mascia, M. B. (2019). Social synergies, tradeoffs, and equity in marine conservation impacts. *Annual Review of Environment and Resources*, *44*(1), 347–372. https://doi.org/10.1146/annurev-environ-110718-032344

Gill, D. A., Mascia, M. B., Ahmadia, G. N., Glew, L., Lester, S. E., Barnes, M., Craigie, I., Darling, E. S., Free, C. M., Geldmann, J., Holst, S., Jensen, O. P., White, A. T., Basurto, X., Coad, L., Gates, R. D., Guannel, G., Mumby, P. J., Thomas, H.,. . . Fox, H. E. (2017). Capacity shortfalls hinder the performance of marine protected areas globally. *Nature*, *543*(7647), 665–669. https://doi.org/10.1038/nature21708

Frontiers of Medicine and Technology

Human Trust in Automated Cars (2020)

What relationships will we develop with automated technologies in the future? Electronic cars with automated driving features offer us an opportunity to observe how humans interact with such technologies. Nathan Tenhundfeld of the University of Alabama in Huntsville discusses his research on this topic in this episode. It offers an important example of why it can be useful to investigate phenomena over time, as the initial observations made by Tenhundfeld's team tended to differ from what they found as research participants spent more time with automated vehicles.

Brian Southwell: I want to talk about some of your recent research on partially automated parking in a moment, but I'd actually like to start by asking about your own journey into this work. How did you decide to pursue research on the human–machine interaction and that site for research?

Nathan Tenhundfeld: Absolutely. My PhD research is actually in basic human vision, so things about how we individually see the world. That research is really focused on getting outside of the laboratory and into ecologically valid environments. My focus was not necessarily on studying vision in a sterile laboratory environment, but studying vision in a way that was more generalized to our everyday experiences. I had the opportunity to network with a researcher by the name of Victor Finomore, who was at the time at the Air Force Academy and they were studying human–machine teaming. They just had a big grant come in, and they were looking for people to start studying this trust in the real world.

I had the opportunity to do an internship down there before I finished my PhD for one summer, get the ball rolling. Then I was actually lucky enough to have the opportunity to do a postdoc down there. After I finished my PhD at Colorado State University, I came on down to the Air Force Academy to spearhead some Tesla research. The reason I wanted to transition to this human–machine interaction is, I really became fascinated with this study of the human as it relates to the machine.

We're at a really neat point in history where we have these unbelievable advancements in technology, but it's not all that clear what the future is going to look like. I got really excited and I'm still really excited about this opportunity to play a small role in helping shape that future. That's what got me on this path and then I was able to get a job down here in Huntsville, Alabama, which has 300 defense and aerospace contracting companies, NASA Marshall flight center, a lot of tech opportunities, and that's continued to feed my thirst for the study.

Brian: What's fascinating about that is you are interested in doing real-world and practical research. Now, we're at a moment when something that I think previously many people would have thought of as hypothetical or science fiction actually is the real world. There's a really practical edge to it. Let's talk about some of that recent work. In one of your papers in the journal *Human Factors*, you and your colleagues studied people's reactions and behaviors regarding partially automated parking.

You specifically studied, if I understand correctly, people's tendency to intervene and take back the wheel metaphorically in the role of trust in all of this. For listeners who might not have a sense of those current possibilities, I'd like you to first explain exactly what's possible now or what was possible in your study, what exactly is partially automated parking and how does it work? How widely available is it?

Nathan: Yes, absolutely. First, you mentioned my colleagues and I do want to say it this is a team effort. I'm fortunate enough to be talking with you, but Ewart J. de Visser, Chad Tossell, Anthony Ries, Vic Finomore, and Kerstin Haring have really gone all in to help on this effort. Partially automated parking is this really interesting idea that isn't inherent to just Tesla. Last time I checked, I think Toyota, Chevy, Volkswagen, Cadillac, Volvo, Mercedes, BMW, and Lincoln all have at least one model with something similar to what we studied with Tesla, but partially automated parking is essentially this feature where you can tell the vehicle to park itself in either a parallel or a perpendicular spot, and there are different ways you can do that depending on the make and model of the car.

Once you do, the car essentially takes over and performs the parking operation itself. Just to give you an idea of how this would work in a Tesla, you have to drive past the parking spot that you want it to park in. Once the Tesla identifies that actual parking spot or an area that could be a parking spot, it'll pop up a little indication that it sees it and ask if you want to start auto parking; you'll push up on the reverse lever, press start, and the car will

start backing into that spot. Now, it usually does it with a three-point turn, but it will do it completely by itself unless you intervene or if for any reason it thinks it can't complete the task. By and large, it's serving to kind of offload the human. It's great if you're in really tight spots or if you just want to enjoy, I guess, something of a novelty of having the car parked for you.

Brian: Right. Here's this new technology that's available at least for those who have the money to buy it. You wanted to know what people would do when encountering this. How exactly did you and your team actually study that?

Nathan: We had a Tesla Model X as part of a research grant while I was at the Air Force Academy and we've continued with data collection. We set up this somewhat controlled yet attempting to be ecologically valid environment, where we would have a parking lot with parking spaces bordered by trash cans because at the point we didn't know how reliable the vehicle was going to be. I can speak to that later if we want to, but we wanted to make sure that if the car hit anything, it was just going to be hitting a trash can rather than somebody else's car. We had participants get in the driver's seat. We would explain to them how to actually employ the auto parking, would have them drive a loop, come back around to that parking spot and then go through the process that I just told you about of starting that auto park.

They would go through the process and we just left it open to them. If they felt unsafe, they could intervene. If they wanted to continue all the way through, they could continue all the way through. Then we would record their interventions, record how far away they were from those trash cans when they intervened in the vehicle. Then we also issued some surveys and a risk-taking measure; the surveys were designed to measure trust in the Tesla, but also their self-confidence and their ability to park, the likelihood that they would use auto park, and then if they would prefer to use auto park over their own parking. We had them do that iterative process for the actual parking as many times as we could fit into the experimental process, but everybody was able to get in at least five of these trials.

Brian: Okay, great. You mentioned there was the possibility that they could intervene and they were aware of that. Let's talk a little bit about what you actually found and what you learned from it, but even just in terms of a descriptive sense, did you find that most people just went with it or were there a fair number of instances where people were hesitant or attempted to stop it? What did the distributions look like in that regard?

Nathan: Yes, absolutely. There was a really interesting split where about half the participants intervened at least once. For those who did intervene only once it was always on the first trial, their first experience. You see this really interesting progression as you can expect somebody to build trust, with repeated exposures, to something like this novel auto parking feature. Roughly about 60% of participants were intervening on that first trial.

Then it quickly drops off such that by the second trial it's about 30%, fourth trial down to about 20%. Then it stabilizes on trial five, about 15% or so. One of the other interesting things we saw about this though is we were also indicating on the subject sheet every time that the vehicle itself intervened. In about 10% to 15% of those trials, the car itself decided it couldn't complete that task. For whatever reason it decided to just go ahead and stop. Sometimes it was obvious to the experiment or to the participant, but there were a handful of times—about one in every 10 trials—where the car would just stop itself. You get this really interesting mixture between the driver interventions and the vehicle interventions, such that successful auto parking, which we're just labeling any trial wherein they were able to start and finish in the parking spot, went from about 40%, all the way up to stabilizing at about 80%. That remaining 20% was the vehicle intervening, but then also just a failure to actually engage that auto parking feature.

Brian: It sounds like very few, if any, of the incidents actually led to hitting that trash can, is that right?

Nathan: Exactly, yes. No participants in our study actually hit the trash can, which is good, I think for the trash can and for the Tesla.

Brian: [laughs]

Nathan: It's a nice research tool.

Brian: Right. I'm curious, then, you have a sense of a success rate, you have a sense of new behavior in terms of human intervention. What do you think you know about humans in their sense of trust relative to before doing that study and in some of the others that you've done? Was there anything surprising that you learned there or was it really a confirmation of what you thought going in?

Nathan: This study came about right after we got the Tesla at the Air Force Academy. If you'll allow me to share just a little anecdote, one of the lead researchers on the project was the first one to drive it and we knew it had this auto parking feature, which we thought would be a really cool thing to use for

our study. We took it out to a parking lot on campus, at the Academy, and had this researcher try to employ the auto parking function.

He turned it on, he started, and then he stopped about halfway through because he thought it was going to hit for whatever reason. He decided to try to park between a Mercedes and a BMW so that may have been part of it, but he stopped about halfway through. We gave him guff and said, "Okay, go again." Second time, same thing. Third time, same thing. Fourth time, we told him to just sit on his hands and his feet because we wanted to actually see it complete the process.

Then we realized we were on to something. He had gotten the same instructions that we had once we got the Tesla, but there was really this lack of knowledge about how the vehicle was going to work such that we didn't really feel comfortable allowing it to go all the way through the park at the first several trials. That was a common theme throughout our learning about the Tesla. This was one of the things that we really wanted to bring into the testing environment and see if it held up with other populations.

About half of the cadets at the Air Force Academy are going to be pilots and so they may be people who are more likely to take risks or feel more comfortable with this technology. We wanted to see what this initial exposure looks like, and then what do repeated exposures over time look like? It was really neat. Once we gave them the opportunity to park, we would also ask them some open-ended questions, like, "When did you first start trusting the vehicle?"

Almost without exception, participants were saying things along the lines of, "Once I started to understand what it was doing, I began to trust it." We had this really big knowledge gap at first exposure with these vehicles such that people don't know what's going to happen and the lack of information that may be communicated to the driver is leading them to take back over control, indicating that they don't trust the vehicle.

Once they start building that trust, slowly letting it closer to the trash can or the other cars, and then see it start making these three-point turns, once they let it complete the action, as I said earlier, after somebody had intervened on the first trial, if they didn't intervene a second time, there was no more intervention. Or even if they did intervene again, rather, it would only happen in the second trial.

It was never the case that somebody would intervene, not intervene for several trials, and then intervene again. It's indicating that once they build this trust, they're good to go, but it takes a while, and some information, to actually build that trust.

Brian: Yes. And it sounds like on some level, we can learn from human relationships, and theorizing, and trust, in general, and predictability turns out to be important, and you can only really have predictability sometimes with an empirical base. What all this does is it suggests that, actually, we may be misunderstanding or misreading public perception, when it's done, when it's measured in the absence of some of this experience.

We'll talk about all that. Nathan, there's a lot more to talk about…

Brian: Nathan, I'm curious about your recent work on partial automation in cars—whether you view that to be uniquely relevant for the driving context or whether you think that some of what you've learned extends to other types of technologies? Are there other available or widespread technologies that you think are relevant to consider when we think about human trust?

Nathan: Absolutely, yes. When we talk about automation, automation is a really broad concept. We don't think about automation, necessarily, in terms of old technologies that we've been using for our whole lives, but even things like elevators are automated. You want to have a certain amount of trust in an elevator once you get on it.

There are not just these automated processes, but we can also think about things like artificial intelligence, and robotics, and things that are coming of age now and trying to get a little bit more of a market share in terms of interactions with humans. One of the really interesting things about where we are right now with technology is that we can start viewing technology not just necessarily as a tool, but as a teammate.

That really, to me, gets at some of the most interesting parts of this human–machine interaction: What does it take for a design of our robotic system to get us to engender trust in that system? When we think about the AI systems like Siri, or Alexa, what are the things it's going to do that're going to allow me to feel confident that it's going to make that reservation that tells me it's going to make, or it's going to be able to find the information it says it's going to find, or just general security and safety procedures?

Even thinking about things like our computers, I know, when I was writing my dissertation all those years ago, I would just mash that save button because I didn't necessarily trust my computer not to crash and delete everything. That was not necessarily an indication that it was likely, but it was that trust that I had to maintain; it wasn't just built into that system.

Now, it is also important to note that I talk a lot about building the trust, but it's not necessarily the case that we want these high trust experiences, we

really want something to be calibrated in trust. Just as it's foolhardy to rely on your directionally challenged friend to navigate a road trip, it would similarly be foolhardy to overly rely on an unreliable GPS or any other automated navigation system.

I think that's really where we are as a field in thinking about all of these technologies. What can we do to consider trust, consider the building and the repair of trust, but also consider that calibration of trust between man and machines?

Brian: Yes. You point to this notion of working as a teammate, of there being some role for humans. It also hints at the possibility that in instances of complete trust, things maybe spectacularly going wrong sometimes. You found that trust in technologies is partly a function of these positive experiences over time.

I'm curious if there have ever been instances that come to mind for you or your team where there's been this technology, which seemed promising, but it didn't really get out of the gate because people had enough repeated concern upfront where they just weren't able to establish that trust even if it might have been promising in terms of what it could have delivered. Are there other examples where it's clear that the people who might have initially been open to it seem to have backed away because of bad experiences?

Nathan: Yes, absolutely. I think this is one of my favorite things to talk about in my human practice class because we get to see all of these real-world examples of where either the market was wrong, or people were overexcited, or just didn't understand the technology. I think maybe the most relevant example at this point in history is the Boeing 737 Max.

There was an issue of automation, a failure to communicate with the human and failure of the human to understand what was going on with the aircraft. It doesn't have to be that big in scale. I think one of my other favorite examples is Clippy, I don't know if some of the younger listeners are going to remember Clippy. It was this little tiny automated AI system on Microsoft products that would say, "It looks like you're writing a letter, what can I do to help?"

Well, it was, I think, a great intention, but it didn't necessarily live up to people's expectations. Then, it got to the point where people had so many negative experiences with it mostly out of annoyance that they started turning it off.

You've seen things more recently like Google Glass, it didn't necessarily get to the point where people were excited to pay the amount of money that it was

going to cost to produce this really cool technology just because it wasn't really doing what we were hoping and expecting it to do. I think there are all sorts of these examples where even if a company has a great product at beginning, their failure to keep up with advances in the technology leads to a lack of trust. You see this with Blackberry struggling to keep up with other smartphones, MySpace struggling to keep up with Facebook, largely because it's just not generating that same experience and interaction, a part of which is trust with the human user.

Brian: Right. We talked earlier about partial automation as one feature, and you've mentioned several other examples. I know it's tough to forecast technology development, but I'm curious whether there are ideas being talked about now or that people are looking at in the future that people will likely have to consider in these ways. Are there new features that we can look ahead to as being potential places where people might have an opportunity to trust the technology?

Nathan: Yes, absolutely. In the context of cars, you're starting to see this rolling out of technologies right now that are cutting edge, but we're not necessarily where we think we're going to be in the next, for example, 10 years. I think one of the current examples we have a lot of experience with may be something like adaptive cruise control. That would be an example where you turn on the cruise control, and your car will adjust speed based off of the cars in front of you.

There's also lane-keeping, some cars—like Teslas—do have that auto steering capability. I think moving forward, we're going to have a lot of really interesting problems to solve. One of them is going to be having these interconnected systems, connecting my automated assistant, whether it's Siri, Alexa, or something else, to that car, so it knows when to pick me up based off my schedule, can I trust it to actually come pick me up? Having these sorts of things like the autonomous fleets of taxis that Elon Musk talked about.

I don't think we're necessarily all that close, but once we get there, how much am I, as somebody who has absolutely no control over the car, going to trust in this system to completely drive me? Also, I wonder when do we get to the point where we're going to say it's actually safer for the cars to take back control from the human, when it feels that human's either are acting unsafely, acting in a distracted manner or maybe tired?

We see this on a very small scale with things like collision avoidance systems, but at what point could we potentially say, "Okay, this car is going to

be able to compute the environment a lot quicker than maybe our own perceptual system could," and so should it have the ability and the right to take over complete control of steering or navigation in a certain environment where they think it may be in the best interests of the actual user?

We're seeing some really cool adaptations of these sorts of technologies even on partial platforms, not like the entire platform level you would have with an auto manufacturer. There's this really cool company called Kama.AI, which is essentially learning to drive your car based off of what is essentially just a smartphone camera. It has the ability to plug in to some of the actuators in people's cars, it's for very specific makes and models.

Based off of just that camera feed, you can start getting this democratized version of self-driving cars for everybody. That feature we're going to have to be concerned about, moving forward, is essentially just what do all the capabilities that people have, how does that play into these typical driving environments? How do I start to understand the automation's behavior when I can't get the same social cues I'd get from a human driver when that car is fully autonomously driving itself?

Brian: Right. In the last few minutes here, there's a different technology relevant to cars I want to ask about in terms of power. What do we know currently about human trust in electric cars? Do you think any of what you've found is going to apply there in terms of essentially, experience leading us to a different level of trust than we've had? What's your sense of the public perception of electric cars at this stage?

Nathan: Yes. It's a really interesting question, because one of the things that's always amazed me is Tesla's essentially hedged their bets. Not to just focus on Tesla here, but they've hedged their bets in the sense that they're pushing forward with not only the self-driving capabilities but also this electric car, bringing this to market and making it cool. I think you raised a really good point of what are the things we need to consider about this trust in the electric cars as it's a fairly new and novel experience, at least to most people?

You've seen these certain cases wherein people have lost some trust in the system because in cold weather, for example, the battery life tends to decrease, or at least the battery range tends to decrease. You also have to deal with this trust in what you'd call an ecosystem. I want to know that wherever I'm going, I'll be able to recharge the vehicle when I get there. We gave a talk up at University of Colorado Boulder when I was at the Air Force Academy.

We had a surprisingly hard time finding a charging station that was going to charge the vehicle quickly enough to allow us to finish our talk and then get back down to the Air Force Academy at a reasonable hour. It's this whole building of trust, again, as we have this lack of understanding of this, a lack of knowledge about how the systems work, or what they're going to look like.

In the most extreme examples, I think people are a little wary at actually trusting technology and wanting these backup plans and thinking about, "Okay, what do I do if the battery completely dies and I'm locked out of the car?" Thinking about that entire electric car platform, I think is a really interesting thing that I haven't personally studied, but I think is a really fruitful avenue to keep considering moving forward.

Brian: Right. Again, there's this underlying theme of, it might be important for us not to just take a snapshot, but to understand that there's going to be an evolution and iterative process whereby people are putting themselves into a situation of being a teammate, if you will. We might need to study these things over time, and not assume that we have all the answers there.

Just a last question, for folks who get really excited about your work, Nathan, and maybe there might students today who want to study this down the line, or jump in and to help build some of these technologies. What are some of the skills that are going to be crucial for folks to develop now if they want to contribute in this arena? Whether it'd be the study of how humans think about it, or to the actual technologies themselves.

Nathan: Absolutely. I think one of the biggest things to me is continuing to cultivate this creativity. When we think about human–machine interaction, it's really easy to be reactive, to ask what are these technologies that are out now and how should we study them? The problem is, they're already out now. We need to think, what are the things that are going to be in the future? Thinking about, what would it actually look like if 100 years from now we're able to develop an artificial general intelligence?

Now, we're no longer the smartest species on the planet, what does that human–machine interaction look like? Thinking creatively like that. Another thing I would tell any student who is interested in this domain is, learn to speak the technological language of a variety of disciplines. HMI, human–machine interaction, isn't an issue just for behavioral sciences, it needs to be computer science, engineering, philosophy, across the board.

Getting familiar with all of these different technologies, but also all these different fields of study is really going to help once they get into college so that

they can start understanding, what do the computer scientists mean when they are bringing up their Python code to go over everything? What does the behavioral scientist mean when they talk about fundamental attribution error? How would that relate to robotics and things like that?

I think for somebody who wants to get involved in this or wants to have opportunities to do research, once you get in college, absolutely reach out to those faculty members. I know personally, I'm ecstatic whenever I can get an eager undergrad because they're frequently thinking about these things in ways that I haven't thought about. I would just indicate that it would be best for these students to really be proactive and excited about it.

Brian: Great, Okay. Well, we got to stop there. Nathan, thanks so much for sharing all your work with us today. We really appreciate it.

Nathan: Absolutely. Thanks for the opportunity…

Implications for Researchers

- Technology can change in important ways over time, as can human experience with technology. That suggests that we need to view past academic research in context. Citing work from 20 years ago can be useful in crafting literature reviews but we also need to recognize the shifts in perceptions and experience that can occur over time.

- Abstract concept perceptions, such as whether technology generally should be trusted, can differ from specific willingness to allow technologies to perform certain tasks.

- Research on human interaction with technology should allow for potential changes in human experience, which can, in turn, affect technology perceptions.

Suggested Reading

Tenhundfeld, N. L., de Visser, E. J., Ries, A. J., Finomore, V. S., & Tossell, C. C. (2020). Trust and distrust of automated parking in a Tesla Model X. *Human Factors*, *62*(2), 194–210. https://doi.org/10.1177/0018720819865412

Tenhundfeld, N. L., de Visser, E. J., Haring, K. S., Ries, A. J., Finomore, V. S., & Tossell, C. C. (2019). Calibrating trust in automation through familiarity with the autoparking feature of a Tesla Model X. *Journal of Cognitive Engineering and Decision Making*, *13*(4), 279–294. https://doi.org/10.1177/1555343419869083

The Future of Telehealth (2020)

The COVID-19 pandemic highlighted both the potential utility of using computer technology to allow patients and clinicians to talk as well as the limitations. Saira Haque, a health informaticist at RTI International (at the time of the episode), discusses the development of so-called telehealth technologies over time and offers insights regarding the future of telehealth research. She also discusses how she transitioned from previous work in health care management to her work as a researcher, underscoring the importance of asking cogent and relevant questions about how systems work.

Brian Southwell: Today, we're talking about telehealth. Some of our listeners might know that word but for those who don't, what sort of technologies are typically involved in a telehealth visit?

Saira Haque: Sure. There are different types of telehealth. Oftentimes, people think of live video as the only mechanism for telehealth. Live video would be something where the provider and the patient are interacting using a computer or a tablet or a phone, and there's audio and video communication. That's the most common usage and the thing that people think of the most.

There are also a couple of other uses of telehealth that perhaps aren't as widespread but are important to talk about. Those are remote patient monitoring. That is something where a patient might have a device, like a continuous glucose monitor, for example, or a pacemaker, and data from that device is transmitted to a provider in another location. That way, providers can remotely monitor what's going on with their patient.

Another use of telehealth or virtual care is store and forward. That's where information is not transferred in real time but there's a delay, so it's asynchronous. Healthcare information is transmitted so that a provider can look at it at a later date and make decisions.

Then the final common use of telehealth is mobile health, or mHealth. That involves healthcare and education that's supported by apps or wearables, things like that.

Those are the four branches of telehealth or virtual care as it exists today.

Brian: That's really helpful. I think people may have actually interacted with one of those technologies and not quite realized that that's part of what we're talking about here, or might not be aware of some of what's just around the corner too, in terms of new developments. I do want to talk about different populations.

Your new Centers for Medicare and Medicaid Services (CMS) report focuses on the use of telehealth for pediatric patients specifically. What do we know about the prevalence of telehealth use in the US for children and adolescents before the pandemic? It's important to note that a lot of the research for your report was really done before the pandemic. Let's talk about that time for now.

Saira: Certainly. For children and adolescents, and for adults, the prevalence of telehealth in the US was quite low before the pandemic. Places where its prevalence was higher include rural areas where perhaps there's a shortage of healthcare providers, and certain areas of national need. Because of that, it's been a little bit interesting to see how telehealth has changed and become more widespread during the pandemic but before, there was a lot of promise but fewer actual visits and actually less usage.

Brian: Yes, let's talk about that, then. I know empirically, you can talk about the time before the pandemic onset based on that report. We've also heard anecdotally, though, about some of these changes and new efforts, but can you comment on what types of changes we're seeing? Has any of that surprised you? What seems to be the case in 2020 as people are starting to experiment with these technologies?

Saira: There have been several different policy-related changes that happened during the pandemic. The reason that some of these changes came about is because when the pandemic first came about in March, there was a real focus on physical distancing. Physical distancing is important for a variety of public health reasons, particularly in the healthcare setting, because one, we wanted to keep people out of waiting rooms who didn't need to be there, especially when we're dealing with a highly contagious disease, and two, we wanted to protect providers and protect the supply of Personal Protective Equipment (PPE), because as we all know, when the pandemic first came about there were widespread shortages of PPE. There were a couple of different reasons why we really wanted to keep people out of the healthcare setting unless they absolutely needed to be there.

As an unintended consequence, that people were not receiving care that they needed. That was something that we didn't want to see. We don't want to have people who need care, who need management for either acute or chronic care conditions, not getting the care they need. As a result, there were several different changes that have been made during the public health emergency to improve telehealth uptake.

I can go through what a couple of the major ones are. One of the biggest barriers to greater telehealth uptake pre-pandemic was reimbursement. Reimbursement is obviously important to providers and guides a lot of what happens. As a result of the public health emergency, CMS expanded reimbursement for telehealth services. What that means is that CMS expanded reimbursement for types of services to include audio-only visits, and also to things like the originating site, which is where the patient is located. They expanded the services that were reimbursable, expanded provider types that could bill for telehealth visits, and removed geographic restrictions that existed.

Those are pretty widespread changes. Now, while CMS is not the only payer, many private payers and Medicaid programs followed their example and expanded telehealth reimbursement during the coronavirus pandemic.

Brian: It sounds like part of the shift has been a policy shift. That's important because it's not as though all of the changes necessarily relate to technology. You've spent a fair amount of time understanding, both thinking about this during 2020, but then previously also you were trying to understand what some of these barriers are to telehealth usage. Our listeners might be interested in how you've arrived at some of these conclusions. How do you and your colleagues do the research that you do in terms of trying to figure out where the pain points are, where the barriers are? How do you actually gather that information?

Saira: We actually did a couple of different things both for this report to Congress and also for other reports and research that we've done in the past, looking at barriers and facilitators to telehealth. Typically, it involves a couple of different methods. One is conducting an environmental scan. What that means is that we reviewed both peer-reviewed and gray literature. For people who aren't as familiar, that means articles that perhaps appear in academic or medical journals, as well as things like white papers or presentations that people may have done. We reviewed all these different types of literature to identify some commonalities or themes. You don't want to just look at literature alone, so then we also talked to some experts. People who are nationally known experts in telehealth, and people who use telehealth on a day-to-day basis, so that we could get the widespread, broad approach from the experts, and also some on-the-ground real-world experiences from people who use telehealth every day. Those were the main methods. We looked at all of that together and looked for themes and commonalities. That's really what guided this report.

Brian: Let's talk a bit more about some of those themes. You mentioned one category in terms of thinking about how people get paid, what counts, what classifies as being reimbursable. I imagine there are others though, too. Some of that might relate to human dynamics. We're thinking about patients. What are some of the other themes that you found during the course of your work that suggest some reasons why people may not always be enthusiastic, or what some of the barriers might be?

Saira: Sure. There are a few different barriers that we see not only for the pediatric and adolescent population, which is what this report was about, but really generally. They come into a few different categories. There are some barriers that relate to licensing and credentialing.

For people who aren't as familiar, licensing is where a provider has to get a state license. Traditionally, providers need a license in every state where the patient is located, and for providers who are practicing at a particular hospital or a facility, they also need to be credentialed there, meaning that that hospital or facility has to verify their credentials, and say, "Yes, this provider is able to provide services in our facility." Those things are typically done locally at the state and facility level.

As you can imagine, with telehealth, oftentimes, those geographic barriers don't matter as much, but then providers have to get licensed and/or credentialed multiple times, and so that can be a barrier. That's especially the case in places where maybe there's a tristate area where people are regularly traversing between work and home and school, or places where maybe someone has a rare disease, and there isn't a provider in their state. Things like that might be reasons folks would want to cross state lines or facility lines.

Brian: This is promising. I want to talk more about this in the second half of the show but historically, it seems that much of the way that our system has been set up has explained why it is that we maybe have had some limitations with regards to telehealth. On some level, it's really in part almost a supply issue and consideration. I'm just curious in a few minutes we have here before the break, on the patient side, generally speaking, did you go into this work and have you expected that historically we would have seen more resistance on the part of patients? What's that story been like relative to what you expected to find?

Saira: On the patient side, really the literature has shown broadly that there isn't that much patient resistance to telehealth. Now, people

sometimes are not used to it, or perhaps are not able to read screens, especially if folks are older, or perhaps sometimes there are issues with hearing, or not being able to have access or know how to use an Internet-enabled device. Those are some common barriers. However, by and large, patient acceptance and satisfaction with telehealth is pretty high. A couple of factors that influence that are the enthusiasm of the provider and the provider office.

If a provider and their staff introduced telehealth, and are really enthusiastic and explain the benefits and explain why it's helpful for them, then that is positively correlated with patient acceptance. Another thing that's positively correlated with patient acceptance is need. For example, if a patient perhaps is older, or they're not really good with technology, and they think, "Oh gosh, I'm not really sure about it," but they live 500 miles away from a provider that they need, then that need can help overcome some of the barriers because they'll see the need. They don't have to have their child take off work to take them to the doctor and spend all day there. There has been some research that's shown that in those cases fewer patients are lost to follow-up. It really improves continuity of care because it helps overcome some of those barriers.

Brian: Yes, it just suggested, as we're thinking about this in the future, that we probably ought not just focus on the technical aspects, but really to think about what patient needs are, and whether in a somewhat seamless way technology might be able to actually fulfill those. If designed in particular ways, it may not be that the technology of 1980 or 1990 is going to fit that but maybe there are new ways of making the experience seem more like an in-person visit. That would be more acceptable and if people are getting the help they need, it stands to reason that that would be something that would be attractive to them.

That's really helpful though, because I think that runs maybe a little bit counter to what people critique in the abstract about some of these changes. We're going to shift gears slightly and look toward the future with a hopeful lens there. There's a lot more we can talk about in discussing the future of telehealth…

Brian: Saira, we jumped into our discussion of telehealth in the first part of the show without necessarily talking about how you, as a researcher, came to be involved in this work. You're trained in information technology. How did you get involved with healthcare delivery and these types of concerns?

Saira: Yes, actually, research is a second career for me. After my undergraduate work, I did my master's in health management and policy from the University of Michigan School of Public Health. Then after that, I worked in management consulting, and I went around the country and implemented all kinds of systems. I implemented electronic health records, billing systems, and other types of health IT systems and providers and payers. I did that for a few years, and then I worked for a client. I worked at a hospital as a hospital administrator. I did those things before my PhD, which is in information science and technology.

Then after that, I was really thinking about taking my applied experience and combining that with my training. That's how I got into informatics. Even to this day, I study all aspects of healthcare information technology and how they intersect with organizations.

Brian: That actually introduces a really important angle to our discussion that we haven't quite gotten to yet, because earlier we talked about factors related to policy, factors related to people. You've had a lot of on-the-ground experience in organizations, and you're very aware of some of the constraints that they face in terms of resources, in terms of organizational culture. It seems like a crucial part of the equation when it comes to telehealth adoption might actually involve organizations themselves. I'm curious here, as we shift and think about the future, what organizational changes might be necessary to unlock and unleash possibilities in terms of the future use of telehealth?

Saira: That's a good question. There are a couple of different categories of organizational changes. One is involving infrastructure. When I say infrastructure, I mean technical infrastructure. An organization may have to shore up their broadband. They may have to get new equipment. They may need to have a telehealth cart, perhaps with several different pieces of equipment together that they wheel around. There's all these different types of things that organizations will have to consider.

In terms of physical infrastructure, organizations may have to think about, "Where will a telehealth visit actually be? Is there a room that's private, that doesn't have a weird glare, that doesn't have, maybe, a window behind, where people are walking through?" All these types of things. You have to think about a little bit more with a telehealth visit, because that is your only interaction with the patient. They're not having the waiting room interaction in the same way. They're not walking through the hall and being in a room.

You have to think about, "How can we make it so that our technical and physical infrastructures are set up in a way that means we can have a smooth visit, share the information that we need, and make the patient feel comfortable and feel satisfied that they're having a visit in a professional and reasonable environment?" So that's one category.

Brian: Actually just on that point, many of us in this world, in 2020, are used to the idea that now you think about video conferencing and a few adjustments might be necessary to brighten up the screens so that people can see you and people are used to adjusting their camera, but that might matter for clinicians as well. You're suggesting that there might be different adjustments that could be made that might actually put a patient more at ease, or might give a patient a better impression of the organization so that they're more likely to trust. Is that the type of thing you're talking about?

Saira: Yes, that's certainly one aspect of it. Also, that someone might feel that they're getting the same type of care that they would get in an in-person setting. Because if someone has a bad telehealth visit, that's actually worse than not having a visit at all. It's probably better that providers spend a little bit of time and attention trying to make sure that the experience is as seamless as possible. Same with other providers. The providers might not want to use telehealth either if they had a bad experience so it really goes both ways.

Brian: Right. There were a couple of other things I think you're going to mention as well in terms of what organizations could be doing looking ahead.

Saira: Yes, exactly. For organizations, there's a couple of different things at play. One is ensuring that they've thought about how to incorporate telehealth into clinical and administrative workflows. During the pandemic, there wasn't really time for that. Many organizations pivoted to telehealth or virtual care seemingly overnight. When you have a little bit of time, it's important to think about how will we actually incorporate telehealth going forward, and you can get really nitty-gritty with the details. Will all the telehealth visits be on the same day? Will they be scheduled the same way? Even if a provider is looking at their schedule, how will they know if a visit is a televisit or a face-to-face visit? All those types of things. So then going on down from scheduling all the way through the visit, and on to billing and follow-up. All those types of things.

Another aspect is looking at really getting the providers and staff onboard. A lot of times people pay a lot of attention to the providers, but don't necessarily spend as much time on the staff who support the providers and who really keep the office running. It's important to get everyone in the office educated, make sure they understand all of the different changes that might happen to telehealth or virtual care, and get them on board because, as I mentioned earlier, one of the biggest predictors of patient acceptance is provider and staff influence. That's another one.

Brian: It's fascinating because I think a lot of what you're suggesting might actually have applications for other sectors as well. Think about education, think about other areas that are now opening up these possibilities. When we talked a lot about visits, about interactions between healthcare professionals and patients, in the earlier part of our show, you did a great job of pointing out that there really are a range of possibilities for interaction between a patient and the system. Things like, for example, monitoring certain aspects of people's health. As we look toward the future, are there promising technologies that might allow different types of monitoring or different possibilities even in terms of interaction than what we have right now? What's on the frontier as we look ahead?

Saira: That's a great question. Every year we see incredible advancements in technology. If you think about it 10 years ago, I could never have imagined I'd have a Fitbit, one that would measure my oxygen saturation, my heartbeat, all these types of things. Now, you can just go on Amazon or go to Target and purchase one. That's just a consumer-facing technology but, similarly, there have been several advancements that have gone pretty quickly in medical devices and different types of technologies.

As those technologies continue to advance and continue to be monitored and regulated and persist, then I think we'll see more use of them. One example is continuous glucose monitoring. We know that the rates of diabetes have been increasing every year in the United States. One key factor is monitoring glucose, and keeping blood sugar levels moderated and keeping them stable. Having more real-time continuous glucose monitoring, that can help providers make decisions.

Also, it can help patients because if they know that their levels are consistently being looked at, and that providers are looking at them, not only is the reporting a little bit more accurate than perhaps it might be with

self-reporting, but also there's that aspect of knowing that someone is looking at it and that might help with compliance as well. There's a little bit of data out there to show that. That's one example. Then other examples might be things like pacemakers, and certainly those are things that can be monitored, and then providers could look and see what are the trends over time and use that to really hone in on the best plan of care for a particular patient.

Brian: What's great about that answer is that you point out not only might we see different ways for you to sit down and talk with a doctor or a nurse, but there might be ways in which your health could be monitored between those visits. While that might be scary for some people, there's also possibilities for this to really improve the care that people receive. I think that might be a hopeful aspect of this.

In the last minute or so that we've got, I do want to look ahead. In this moment on this show and in recent weeks, we've been asking people about what gives them hope. I hear you talking about a future orientation in terms of some of these possibilities. I'm just curious, as you think about what's happened in the last 5 years, what will happen in the next 5 years? Are there aspects of your work that specifically give you hope as you think about the future of telehealth?

Saira: Yes, that's a great question. During the pandemic, telehealth use increased exponentially. We saw that pre-pandemic the prevalence wasn't that high relatively speaking as a percentage of overall visits. Then, during the pandemic, visits increased by a significant amount almost overnight. It seems like now things have leveled off a little bit, but I think we've really overcome a great hurdle in terms of increased telehealth adoption and really seeing the promise of telehealth.

Now, in terms of what's going forward, I think there's a lot of research that we can do and find out what were the impacts of this shift to telehealth, and then we could make really intentional decisions for the future. We can think about what are the populations that perhaps are best suited. Perhaps there are certain services, or perhaps there are ways to really optimize the use of telehealth combined with face-to-face visits. I think that will be the wave of the future, so that we could really see the promise of telehealth to improve cost, quality, and outcomes.

Brian: That's great. It's a very subtle but important answer, and that it may not be a matter of everything that's on the menu and just adopting all of it,

but that we might actually use a hybrid and figure out what works and other things that don't, and move forward with that. I know you're really at the forefront of helping us think about that in an evidence-based way.

Saira, I want to thank you for taking the time and all the complications that involves in terms of calling in to our show in a moment like this. Thank you for joining us. We really appreciate it.

Saira: Thank you for having me. It was a pleasure to be here…

Implications for Researchers

- Training early in one's career can serve as a basis for studying new phenomena that might arise during the course of one's career but being successful in such research requires conscious effort to consider what is new about patient circumstances and what is common to past circumstances.

- New monitoring technologies in the future may allow researchers to answer new questions about human health and well-being that previously were not considered or were relatively challenging to study. Regularly asking what variables are even possible to measure with new technological affordances can inform future research.

Suggested Reading

Haque, S. N. (2021). Telehealth beyond COVID-19. *Psychiatric* Services, *72*(1), 100–103. https://doi.org/10.1176/appi.ps.202000368

Raspa, M., Moultrie, R., Toth, D., & Haque, S. N. (2021). Barriers and facilitators to genetic service delivery models: Scoping review. *Interactive Journal of Medical Research*, *10*(1), e23523.

Uncertainty in Science and Society (2017)

Most episodes of The Measure of Everyday Life *feature people involved in social science research in some way but the show also has featured novelists, journalists, and even television entertainment professionals, as storytelling professionals often can offer insight into the social dimension of social science. What can a novelist tell us about scientific research and science institutions? This episode features a conversation with Chrissy Kolaya, who wrote a book called* Charmed Particles *that involves community*

dynamics related to a science research project. It also offers useful insight on the notion of uncertainty and how that is important in understanding public understanding of science.

Brian Southwell: What drew you to write a novel? It's a novel, in some ways, and in a lot of ways it's about a super collider. Where'd that come from and what drew you to that topic?

Chrissy Kolaya: I think that I became interested in one super collider in particular, the Superconducting Super Collider, which is sometimes abbreviated as the SSC, so you may hear me refer to it as that throughout. I got interested in this, like many writers do, through personal experience. When I was just starting high school, I'm about 14 years old, my family moved to the Chicago suburbs. On one of my first days at my new high school, I arrived at school to find the area in front of the school covered with people protesting.

I didn't know what they were protesting. There were all these adults with signs and posters and they all said no SSC or pro SSC, and I remember just being very stricken, wondering what that was about. I hadn't heard about this before. As far as I knew, I don't think my parents knew about it. It stuck with me in this really interesting way. Like, "What is it they're protesting?" As it turned out, they were protesting the possible construction in the area of a super collider that was going to be built there, or was under consideration to be built there. That was what drew me to it.

Brian: Really, there's an autobiographical tie here. This as a point of controversy, it sounds like that was compelling to you as a teenager. Have you long also had an interest in science more generally as a force and a focal point for public opinion? Was that an aspect of this that was interesting to you as well?

Chrissy: I don't know that before I started researching and writing this book I would have articulated that as an interest, but I certainly feel that way now. Actually, my next project is also connected to science. It's actually about pseudoscience.

I think what drew me to the story of the SSC in particular was that it seems to have a lot to say about American attitudes about science. It's a really good illustration to my mind of some of the challenges that the scientific community is confronted with when they're trying to communicate responsibly about these complicated scientific ideas, especially when they're trying to do that to a lay audience.

Brian: Absolutely. You really put your finger on the pulse of something not just involving super colliders, but a wide range of issues, and we can talk a little bit more about that. I know you won't want to give away the plot, but I'm wondering if you can help our listeners understand just generally what's at stake in the situation you described. There's a lot that's at stake on a personal level, but I guess more so in terms of thinking about a super collider, just generally, what are some of the risks and benefits that often are entailed in a situation like that?

Chrissy: What I can speak to here is what the perception of those risks and benefits were at the time, the late 1980s, when the SSC was under consideration. At that time for the opponents of the SSC, the perceived risks were really mainly related to things like groundwater contamination, declining home values, and generalized fears about radiation, among other concerns. It might help to stop here and contextualize this.

The reason that these were the fears is because the SSC would have been built under people's homes, schools, and farmland. This was a facility that wouldn't just be cordoned off on the campus of a scientific laboratory but would, rather, be part of the environment under people's homes. That I think is where a lot of those perceived risks came from. For supporters of the SSC, I think the perceived benefits were that the US would retain its spot at the forefront of the high energy particle physics research community, that we would maybe come to know more about the conditions at the time of the big bang, which was what they were after in their research. It was an interesting period.

Theoretical physicists at the time had come up with a lot of really intriguing theories about these particles and forces that make up the universe. What they needed, now that they had these theories, was an accelerator that was big enough and fast enough to prove some of these theories, that would allow them to know whether they were on the right track or not. For the supporters, those were the kind of things at stake. I thought it was funny that you mentioned giving away the plot because that was actually a real challenge when writing this book.

In most fiction that's not historical, readers don't know what's going to happen at the end of the book, and that's part of what keeps readers turning the page, but for this book, I had to think about the structure and the narrative tension of the book in a really different way because it would be no surprise to most readers how this turns out. They could easily Google it and find out what became of the SSC, so I felt like my challenge with this book

was making the experiences and the responses of the characters to the events, which hopefully kept readers turning the page in this case.

Brian: That's a fascinating aspect of this. I suppose, in a fictional format, you could have gone in a wildly different direction, that is, different than history, but at least in terms of that prominent example, people have a sense of how that typically played out, but what's really compelling, well, there's a lot that's really compelling about the book, but one of the aspects is the fact that you have these other layers. We might talk about place and characters.

I think, for example, it matters quite a bit that this story takes place in a town in Illinois, in Nicolet, Illinois, as you've labeled it. I think listeners are going to have trouble finding an actual Nicolet on the map, but you paint a vivid picture of it as a town in the Midwest. Did you intend for the town to stand in for, say, the Heartland of America, or is it really uniquely its own place? What's your relationship to this as a town and as a character of its own?

Chrissy: In writing it, I was thinking really specifically of the Chicago suburbs of the 1970s and 1980s, which interestingly are very, very different from the Chicago suburbs of today. Now that the book is out in the world, I think it's absolutely reasonable to read Nicolet and some of its citizens as representatives of a certain part of our country and a certain part of our population. It's an interesting difference between what you were thinking about while making the book, and then what the book goes out to become out in the world.

Brian: Over the last couple of years, we've arrived at this moment where there's been a rediscovery, if you will, of the middle part of America politically. There's that dimension to it as well. There also are these very vivid characters who are part of the book. I want to talk about them as well, because you found a way to weave in a whole other layer of consideration. One of the central characters in the book, and you can correct me if I have this pronunciation wrong in my head, is a gentleman called Abhijat Mittal, who's originally from India. At one point, he shares brochures from the Nicolet Chamber of Commerce with his wife, I think as a way of explaining what's in store for them as they move to this new town.

That small detail stuck out to me because it suggested an earnestness in terms of trying to find out where are you going to go live and finding new information about the people that live in a place and finding out about one another. Whether that's described in the brochure is an open question, but there's another aspect of uncertainty you deal with. Is it fair to say that the

social group dynamics and relationships between the US and the rest of the world are an element of the book that you intended to highlight?

Chrissy: Yes, I was especially interested in this idea of what the Chicago suburbs of the '70s and '80s would be like for Sarala, who is Abhijat's wife. She experiences the group dynamics of American suburbia as a South Asian woman, and then her husband experiences the group dynamics of suburbia, but also those particular group dynamics of the laboratory that he encounters in his work.

We've also got this curious character, Randolph, who's an anachronistic gentleman explorer type guy, and he's out there interacting with these so-called unexplored parts of the world and then translating that back to readers of his magazine. I think the way that we look at those, our relationship, as a country to other parts of the world, was something that I was really curious about.

Brian: Just one last question here before we go to a break, it seems to me that one thing you've done is to paint this picture of really big science as requiring lots of investment. When it comes to digging underground there are real consequences to that, and also engagement with the wider world; you suggest that, yes, this might be about a scientific pursuit, but these things inevitably cross paths with political considerations, social considerations. Is that an angle that was prominent to you as you were going on the journey of writing this book?

Chrissy: Yes. I think it really became more of an angle the more I learned about the process. I started out just having this vague memory of this experience as a young adult, and so when I went back to learn about it and to figure out, like, what was that the people were protesting in front of my high school in 1988 or '89? I began to learn about this and, because these characters were so real to me, I think it became clear how this was going to impact their lives and their hopes, and dreams, and motivations, and ambitions.

Brian: It has. I want to talk a lot more about where you ultimately took the book, but also just your own venture into this, your work at the intersection of science and the humanities…

Chrissy, in the first part of the show, we talked a little bit about the contours of the book and in this part of the discussion, I want to stretch out a little bit to talk about some ideas that are raised in the book as they relate to broader considerations about public understanding of science.

There's an interesting new paper by authors Anthony Patton and Elke Weber… It came out a couple years ago, and they're talking about climate change. They argue that what we most need to do is actually to focus on possible solutions as a way of giving people concrete options to judge and sort through, rather than attempting to motivate people on the basis of broad, abstract discussions of the problems.

The idea that people need to choose between options A and B and C, rather than you're just talking at an abstract level, that's hard for people to conceptualize. It strikes me as an interesting idea and a compelling one, yet in *Charmed Particles* there's an example of people being confronted by a very concrete solution, almost literally, without necessarily understanding the problem that needs to be solved.

I actually wonder what you think about this suggestion, really, it's a broader question about public opinion dynamics, but are they onto something with the idea that people need to be able to grasp concrete policy options and choices to debate, or are people comfortable with abstractions? What's your sense in terms of exploring that and trying to make it realistic in terms of talking about that in your novel?

Chrissy: Of course, I'm going to be careful here, having not read that particular article yet. The careful academic in me is hesitant to make any proclamations about whether they are onto something there. I do think your idea is fascinating, this idea that part of what might have been a work in the story of the SSC in America is this idea that the public had, as you said, concrete policy options to weigh in on before they fully understood the complexities of the issue and the need for those policies.

Communicating responsibly about these policy issues to a lay audience is an incredibly tall order and it's a really tricky thing to get right. On the one hand, you have these complex scientific ideas that are not easy to translate for the general public, but on the other hand, doing that and doing it well is essential in getting buy-in for it. I thought that was a really interesting connection.

Brian: I appreciate you weighing in on that. I want to spend some time also talking about your own relationship as a novelist, as a writer, as a purveyor of thought to scientists more broadly, there are several different dimensions there. I'm curious though, you've gone on this journey in writing this book in which you've really had to take on the question of science and technology institutions and the role they play in society. Has your own perspective on science changed or evolved during the course of the writing of this book?

Chrissy: I guess I would think of it this way. I came to find myself really empathizing with science as an entity through these characters. I also found myself absolutely bowled over that any big project like the SSC has ever been able to move forward, because once you see the incredible amount of work and coordination that has to happen to make even the tiniest amount of progress on these projects, it's either really inspirational or it's pretty overwhelming, depending on your state of mind.

Brian: Yes, and that's certainly something you paint this picture of here. I'm also curious about an arena of work on public understanding of science and scientists and sociologists and communication researchers and others who do that work. I'm interested in your relationship to that, but also you talk about this as having been inspired by your own life history and real events and yet you write this particular account.

For example, other folks have weighed in on this who have a bit more of a nonfiction angle, Adrienne Kolb, for example. She wrote a nonfiction history of discourse on supercolliders in the US and has reviewed your book. Have you found yourself engaged by those types of researchers and historians and folks who are doing this work, or is that a conversation that hasn't had a chance to start yet?

Chrissy: No, it hasn't so far, but it's really something that I'd love to see grow out of this book. It's something that I'm really interested in and curious to learn more about, as well as to talk about. I've given some talks on the challenge of communicating responsibly about complicated scientific ideas, which is something that I find fascinating, but also, I'm really interested to learn more about. I think if there's any way to interest readers in this particular period of scientific history through these characters, I think I would consider that a pretty big win and a good thing overall.

Brian: Yes, and that's what's great. Maybe this could be a starting point, this episode for some of that discussion, and that's wonderful, because that was one of the things that compelled us to bring this to our audience to think about what you've done in portraying all these issues in a way that I think is different than you sometimes would see in a short newspaper article, for example.

I'm curious about the role that you think the book could play in that type of discussion but I also want to go a bit further with what you just articulated, which was this notion that you have come up with some ideas, or at least

articulated some of the challenges that seem to face people who are attempting to describe science and to educate the public. I wonder if you could talk a bit more about that, and what some general principles are, or at least some of the challenges that we have to keep in mind here for folks working in that arena.

Chrissy: The two buzz words I think to pull out of that are the idea of communication, so to communicate with a lay audience of non-scientists. One of the things that's really important is to consider the audience and to be attentive to matters of storytelling. In that sense, piquing the audience's curiosity and interest. The other part of it is being responsible, and so being careful about the way we communicate about these complex scientific ideas.

   This means that you have to be committed to conveying them accurately and this type of responsible yet intriguing communication can be difficult to pull off. It's a delicate balance. I really see the story of the SSC as a great opportunity to look closely at a moment when things didn't go according to that plan, when things didn't follow that template in the way that we might have hoped.

Brian: I'm going to stretch back to bring in a somewhat random example that I'm really curious about, this notion of storytelling as a great vehicle, but also the idea that it might have some inherent tension in terms of trying to portray scientific accuracy. I think back in my own career, one time I consulted, when I was working with the US Center for Disease Control and Prevention, on a script for an old show, the first incarnation of *Beverly Hills, 90210.*

Chrissy: [laughs]

Brian: It's strange and they had this storyline talking about skin cancer, and they wanted to have one of the characters go through that. There was this real tradeoff between what we wanted to suggest in terms of, here's the scientifically accurate portrayal, here are some key messages, but also what was needed in terms of drama. It worked out, but it was a tension. I'm wondering, during the course of this book, were you tempted in some way by what you needed in terms of a storytelling element, but then you were checked by factual accuracy? What was that dynamic like for you in putting this book together?

Chrissy: As I was researching, I felt so in over my head at times, and so intimidated, and so concerned with getting it right that it never, honestly

never, occurred to me to deviate from the path in that way, but it did make the writing particularly challenging. I don't know if this is particularly related, and you can decide, but one of the things that I often talk about with this book is that when I was researching it, I went really deep down the rabbit hole of research.

I was reading the transcripts of the public hearings, pages and pages of these public hearings and as I read those, I felt like what my goal was as a writer was to accurately convey those public hearings and I felt pretty proud of myself. I felt like I had done that. My agent, and then later my editor, very kindly pointed out to me that reading that particular chapter felt an awful lot like sitting through several hours of hearings, and so we had to backtrack and say, "Well, we need to make narrative drive and story come first. There're parts of this that are interesting, but we don't need to relive the experience of sitting through that."

Brian: Everyday life is often fascinating, but sometimes there are aspects of it that are mundane. In terms of thinking about the creation of this book and tying it together and putting it forward to frame in a particular way for an audience, I want to actually start with maybe something that came on early, or maybe it happened at the end, but a question just about the title, where does the name come from? If you are able to talk about that in a way that you don't think gives away too much, it would be great to hear your own sense of the origin story of the title of *Charmed Particles*.

Chrissy: A charmed particle is an actual thing. It's a type of particle and there are other types of particles. They talk about charm and beauty and all these other measurements that we think about when we look at particles, and the language of it—as a poet, as a lover of precise language—the beauty of the language of physics, even when I didn't understand entirely, it really impressed me, and so I found my way to this term.

I was researching and I discovered that there had been an international conference on charmed particles, and I thought, "Oh, what a beautiful phrase that is, and also what a great representation of what's happening for these characters." They're colliding into one another and going off in these different orbits as a result of those collisions. That's the way that that came to be. It was one of those happy things where that was the title of the book and that was that. When the book sold, there was no concern about that, and there was no back and forth about it. This book has gotten to hang on to its name, which is a really nice thing.

Brian: Absolutely. It's a lovely name and romantic vision and so much of physics really can be so deeply philosophical. Just a quick last question, will you stick with science as a topic for future books? Can we look forward to that for the future from you at any point in time?

Chrissy: Well, I think I'm departing pretty hardcore from science; my new book that I'm working on right now is about pseudoscience. It's a book about cryptozoology, which is the study of mythical or imaginary animals, and so I will be looking at the opposite of science, really.

Brian: Absolutely, you're still going to be talking about human interaction with ideas and social science in a way that'll be relevant to the show, so we could look forward to that as well.

Chrissy: Oh, that would be lovely.

Brian: Excellent. Well, we're just about out of time with today, but Chrissy, this has been a fascinating and wide-ranging discussion. Thank you so much for taking time to be with us today.

Chrissy: Thank you…

Implications for Researchers

- Novelists and social science researchers occupy somewhat distinct niches and yet the two types of professionals can learn from one another; novelists consider their audiences in ways that could offer a helpful model for many researchers, whereas the type of attention to empirical evidence that researchers often exhibit can help strengthen the veracity of novels in important ways.

- Humans tend to weigh abstract considerations and specific examples differently, and that realization can help to explain some aspects of public understanding of uncertainty.

Suggested Reading

Kolaya, C. (2015). *Charmed particles*. Dzanc Books.

Pellizzari, E., Lohr, K., Blatecky, A., & Creel, D. (2017). *Reproducibility* (RTI Press Publication No. BK-0020-1708). RTI Press. https://doi.org/10.3768/rtipress.2017.bk.0020.1708

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Geography and Disparities

Mapping Inequalities (2017)

Geography as an academic discipline involves more than physical land features; geography research often intersects with approaches such as history, sociology, and public health. This episode of the show connected maps to social life and did so in two parts. First, the episode featured correspondent Marina Poole as she explored Google Maps software and spoke with Laura Bliss of The Atlantic*'s CityLab project. The second half of the show featured a discussion with historian LaDale Winling of Virginia Tech about housing patterns and the effects of a 20th-century policy known as redlining.*

Brian Southwell: Chances are that you've used a map recently. We're used to thinking about maps as tools to tell us how to get where we want to go, but maps can also tell us where we've been and where we're headed. Maps reflect how we treat each other, how we shape and organize our lives in relation to each other. Maps sometimes can show us more about who we are and how we act than we realize. On this episode, we're going to explore what maps tell us, not just about physical spaces but about the people who live in them. Let's start our journey with insights from correspondent Marina Poole. She recently explored whether online tools might harbor human bias.

Marina Poole: More and more of us are turning to Google Maps these days to figure out where to go and where to spend time. It seems like nobody these days, myself included, goes anywhere without first consulting Google Maps and we expect what we find there to be totally objective. We spoke with Laura Bliss, a writer for *The Atlantic*'s CityLab to have her explain how a recent Google Maps update shows real-life geographic divides in a new way. The update is really simple. What it does now is to highlight in orange, "Areas of interest," which are determined by an algorithm that identifies the areas with a high density of restaurants, bars, clubs, and stores. You can look at a map and know that where it's orange, that's an area of interest. You'll be able to zoom in and see that there are a bunch of restaurants and shops in that area. Simple. A problem with this that's easy to overlook, though, is that by defining these areas of interest, those areas left unidentified become less interesting.

Laura Bliss: It's supposed to be based on commercial activity, how much people are shopping and checking in with their phones and registering the business activity.

Marina: That's Laura.

Laura: I'm a staff writer at City Laboratory. We are interested in all the ways that people navigate urban spaces. As such, I write a lot about maps and digital maps, especially.

Marina: She's from Los Angeles, so that's where she looks to ground herself on new mapping updates.

Laura: For a chunk of time I lived pretty close to Westlake, which is a neighborhood further on the East Side of Los Angeles. It's predominantly Latino. It's significantly lower income than the rest of the city. It's incredibly dense. Alvarado Street is a super dense shopping corridor. There's a metro station. It's packed full of little restaurants, and shops, and cell phone fix-it places, and clothing stores. It's actually packed with pedestrian activity. Anyway, I was really struck to see that there is a little bit of orange washery just South of Wilshire Boulevard but then nowhere else.

Marina: There's a Latino neighborhood packed with pedestrian and commercial activity that's not highlighted in orange.

Laura: Then just by comparison and this may have been some glitch in their algorithm but, looking along a pretty heavily residential neighborhood on the west side of Los Angeles, which is wealthier, mostly white, there's this big blush of orange all around the neighborhood.

Marina: Again, this is a mostly white residential neighborhood but it's highlighted in orange as an area of interest.

Laura: I looked at DC, I looked at Boston, I looked at a couple of other cities and there were similar examples where from a data perspective, it makes sense that certain neighborhoods would be less represented probably because of cell phone penetration; businesses that aren't listed on Google Maps already might be more likely to be those in lower-income neighborhoods with less Internet access and Internet use. There could be all kinds of reasons.

Marina: I set out here in Durham, North Carolina to see if I could see what she was talking about. In the past few years, downtown Durham has been developed quite a bit. It's full of trending new restaurants and many

Black-owned businesses have closed but that's a whole other story. To use Laura's writing, it's now the appealing color of a creamsicle, but I was expecting to see that. I knew I'd have to go somewhere else. How about heading over to Durham, where I know a coffee shop and a couple of restaurants and bars. Still orange. I thought about heading to the mall. Durham has two large malls, the Streets at Southpoint and Northgate Mall. I've been to both many times. They both have movie theaters. They both have Macy's. They both have typical mall food courts, but one's highlighted in orange and the other is not. Let's check it out.

First stop, Northgate. Here we are. Okay. There's Macy's, there's a woman ringing the traditional Salvation Army bell outside for Christmas. Okay. The typical food court here, all the kiosks, it's all set up for the holidays. There's a carousel and lights being set up. It seems like there's a lot going on here. Let's check out the next mall. Okay. I'm driving into Southpoint now. Let's find a spot to park here. Okay, so far seeing exactly the same thing. There's another guy over there ringing the Salvation Army bell. I'm seeing the same kiosks, pretty similar stores, a few more high-end brands. I didn't see those at the other mall. In general, it doesn't look too different. I think I've seen what I need to see here. In case you didn't catch it, Southpoint was the one highlighted in orange, and Northgate wasn't. Just to be clear, orange means commercial activity, and Northgate definitely has commercial activity. While the stores at Southpoint are a bit more high-end, the socioeconomic difference is definitely not as distinct as the neighborhoods that Laura compared in LA. Besides, that's not the point. Anyway, that was the only distinction I saw between the two malls, really.

Laura: I don't think this is an indication that Google has some intentional bias that they're trying to make manifest on their map. I think this is a reflection of the data that they have.

Marina: Laura concluded that the areas of non-interest are generally poorer or home to large immigrant and minority populations, and it's true. There are demographic differences between who goes to these two malls, but I found it really perplexing that this could be enough to make the difference.

Laura: I think it does get to this question of which of these are called areas of interest. It does prompt this question of interest to whom, right?

Marina: Laura explains that there's a self-reinforcing flip side to this disparity. The term areas of interest make an implicit assumption about who the Google Maps user is and what they're interested in.

Laura: I think it's an important reminder to people who use Google Maps—

Marina: Which, by the way, is 41% of all Internet users.

Laura: —that there are choices that are being made here and that are represented in what we're seeing. What Google Maps is showing us feels objective in some way and that data are not a direct representation of the world.

Marina: Like she said before, there are all kinds of reasons from a data perspective why one area would be highlighted and the other one wouldn't but here, I'm just not seeing it.

Marina: That was Laura Bliss from *The Atlantic*'s City Lab and I'm Marina Poole. This is *The Measure of Everyday Life.*

Brian: The notion that certain places are deemed more desirable than others, as we see in online guides, signals an important observation about society. Designations of a place's value and worth can have consequences. Well, joining us for the remainder of this episode is Dr. LaDale Winling, a history professor at Virginia Tech. He's written extensively about the built environment, the buildings and infrastructure that human beings construct, and organizing societies. He has particularly focused on the role that American universities have played in shaping the organization of cities and towns. LaDale, welcome to our show.

LaDale: Thanks, Brian. It's great to be here.

Brian: Your work is really fascinating. You spend a fair amount of time studying and preserving maps that tell important stories about communities. I'd like to start our discussion by focusing on an effort to use maps that severely affected the lives of some families for generations. I'm talking about the use of maps by the Home Owners' Loan Corporation and the practice of redlining. What was redlining and why did it matter?

LaDale: Redlining, broadly, is the denial or withholding of capital and investment to disfavor disadvantaged neighborhoods and areas. That practice still goes on today. Its origins, both the term and the institutionalization, come out of the 1930s. In the course of the New Deal and the Great Depression, there was a severe housing and financial crisis. To rescue the financial sector and reinvigorate the housing and construction sector, the Roosevelt Administration, with Congress, created the Home Owners' Loan

Corporation and in the course of that agency's life, it initiated a survey of American cities where it drew upon business, financial, and real estate leaders to understand and create a national clearinghouse of real estate data which did not exist before so that the federal government and the Federal Housing Administration, the FHA, would have some idea of where high-risk neighborhoods were and where was a good place for the federal government to invest. The Home Owners' Loan Corporation created maps of what their ideas were, of where the good neighborhoods were, and where the bad neighborhoods were, in cities across the country.

About 200 maps were published, color-coded to reflect the best neighborhoods, given an A grade and color-coded green, or hazardous neighborhoods, the worst, color-coded red. From that point in the 1930s until the present, biases of racial hierarchy and racial worth were firmly embedded within that process of redlining.

Brian: That's extremely helpful and compelling. What's interesting about that as an example is that you can start to understand the rationale for it, the practical reasons why, but then also the consequences, maybe inadvertent, of what that's done. I'm curious, LaDale, for you to talk about what drew you to these mortgage practices and maps in the first place so could you comment on that briefly before our break? Then we're going to delve more into your work in a minute.

LaDale: I, from my youngest days, had a vision or idea about what cities were like in the 1980s growing up in Michigan. We have a model about what constitutes a good neighborhood, what constitutes a troubled neighborhood, and cities versus suburbs. In the course of my graduate education and then my work as a historian, I learned about and was able to spend some time with these redlining maps, the city survey insecurity maps of the Home Owners' Loan Corporation, which are housed in the National Archives II facility in College Park, Maryland. I came to realize, drawing upon the work of many historians who have come before me, that these were the cities that we have and the good qualities of a neighborhood, in fact, were codified and supported and incentivized, or disincentivized. by federal programs throughout most of the 20th century.

This is something which is a confluence of my personal experiences as a young person in college and graduate school, and the research that I do about cities and realizing that this material, mostly all still in existence in the National Archives, was mind-blowing… the understandings that I had…

were totally transformed by learning about redlining and the Home Owners'
Loan Corporation was relevant to people across the country. That was the
origin of this mapping inequality project and the enthusiasm that I have for
investigating how we got the cities that we have.

Brian: Great. That's a really powerful example of the ways in which our
designations of space matter and it's really only the tip of the iceberg. There
are myriad examples that we can talk about.

Today, we're considering maps from cultural, sociological, and historical
perspectives. Joining us by phone is LaDale Winling of Virginia Tech. Okay,
LaDale, let's switch gears to focus on a specific place in the American
landscape. Let's travel together for just a moment to Muncie, Indiana, which
is the focus of one of your books. What do we know about the ways in which
the physical space that constitutes Muncie changed during the early part of
the 20th century?

LaDale: Muncie is this classic, Midwestern industrial city, or was 100 years
ago, the home of the Ball Brothers Manufacturing Company which created
the glass jars that were used for canning preserves, at that point, the leading
producer of glass jars for canning. About the same time, there was a small
private for-profit normal school created on the northwest quadrant, at the
edge of town; that private institution failed a couple of times. The leading
family in Muncie, the Ball brothers, arranged for the purchase of the property
at auction, the donation of the land and the institution to the state of Indiana,
and negotiation for the creation of a public higher education institution that's
now Ball State University.

What that process of establishing a university, first a normal school, then a
college, and then a university, did was it provided the basis for the shifting of
the Muncie economy over the course of a century. What it did was it rooted
that transformation in the northwest near where the Ball family lived, they
had a compound along the White River. It shifted the direction of
development and the emphasis of civic and philanthropic capital away from
the industrial southern part of town to the northwest and that really
fundamentally changed the dynamic and the practice of living in Muncie up
to the present.

Two sociologists, Robert and Helen Lynd, wrote prominent books about
Muncie they called *Middletown* and *Middletown in Transition*. They said that
that process of investing, creating first a university and then a hospital in the
northwest quadrant of Muncie, drew the business class—which had been

located in the east end of the city near the central business district—out to the northwest. There's a gravity of capital, that investment follows investment and all of the emphasis and all of the development over the past 75 years in Muncie has been moving to the northwest.

Brian: You've got almost this magnetic force that happens and we consider how changes in physical space happen over time and so much of that has to do with resources and investment and infrastructure. There's a lot in that story that is very compelling. Part of it that's striking is the starring role that we might think about in terms of the American university as a force for spatial change. In my own experience, I've been associated with several universities in which the relationship between the university workers and students and adjacent populations, it's been, well, dynamic and sometimes fraught over time.

You and I both have spent time in Philadelphia, for example, and you can't really tell the story of that city without referring to the various university agents that have been located there. Is there a way that we might characterize universities as a unique force? Has that role changed over the 21st century? What's your sense of, if you had to characterize generally, the American university as an animal, as a force for spatial change, what's your sense of that?

LaDale: Well, I don't want to overgeneralize, but I think there are some key principles—

Brian: As a good historian, right?

LaDale: [laughs] In the end of the 19th century, there was only a very small proportion of the American population—and it was largely overwhelmingly white men—who had college degrees, something like 2% of adult-age men had college degrees, and now about 25% of the American population, the adult population, has at least a college degree for their top level of education. We've seen these institutions shift from being fairly marginal to being central to how we envision the future of our communities, the future of our personal development, and the future of national competitiveness. A hundred years ago, universities were not particularly a special community. Civic leaders would have thought of them as comparable to having another factory or some other leading business or institution in their city. In Muncie, the founding of the normal school was just like one of many civic investment strategies that city leaders had. It is special, in that universities and higher education helped transform the American economy such that they now basically stand alone in being enduring drivers of regional and local economic development and, in

fact, are central to how we even think of what middle class life is. You've basically got to have a college education to make it into the middle class or be considered middle class.

What does that mean for their role? They're highly empowered in a way that they hadn't been 50 years ago or 100 years ago because, in some ways, that's the only game in town for economic development, right? Universities, with their product, degrees, and education are increasingly important to the American population. Then that education has compounding factors, right? Then highly educated populations will start businesses or add value to an existing corporation or figure out new ways to produce products or provide high-level services. That gives those institutions a great deal of power in negotiating with local and state leaders and it gives them a great deal of resources for expansion and transforming the neighborhoods and communities that live around them.

Brian: Yes. If we think back to the first part of the show and this latest part of the discussion, there are certainly positive dynamics but also some that some might worry about in terms of this pattern in terms of spatial dynamics for, essentially, the rich to get richer, if you will. Do you have a sense of all that in terms of that aspect of a potential solution for those who might be worried about that trend, whether we're talking about the example of redlining, we're talking about both transformative force of universities as magnets, but also, maybe drawing resources away from other places? Are there ways that we may be looking ahead and learning from lessons from the past?

LaDale: Well, I think a key issue or recognition that we have to have is that the kind of society and the kind of economy that we have is one that we choose, right? That it's made by policy leaders who set the priorities, who empower institutions. We need not think of the kind of economy or society that we have as natural or inevitable. That's the first thing. I think one of the key contributions that historians make is to tell how we got the society or the culture that we live in.

Brian: Absolutely. Actually, I want to use that to bridge here before the end of our show to one other project that you've been working on that's really fascinating. You talk about choices that we make together to organize ourselves. One is the drawing of our congressional districts, of thinking about the ways in which borders matter to a body like the US Congress. You're currently working on a project called Mapping Congress. It's one that's, I

think, both historically relevant but also really timely in terms of what's been in the headlines recently. How has working on that project influenced your own understanding of how we define community and how that matters to all the issues that we're facing right now?

LaDale: Oh, right. One way in which looking at the history of congressional elections and congressional districts over time illustrates, the ways in which congressional districts and communities of political identity have—how we've changed the way, who votes together, who identifies as a community. Broadly speaking, up until the mid-century and a little bit beyond, the congressional districts were very contiguous. The priority was in making sure that there was an identifiable community that lived near each other in drawing a congressional district. We've moved really dramatically away from that. This is an intentional political project to develop safe districts and look at demographics to assure election whether by Democrats or by Republicans.

What that means is that we have the breakdown of a shared political conversation and a shared debate both in terms of our elections and campaigning and then, as a result, in terms of policymaking. Political scientists have demonstrated this pretty clearly over the last several generations. Also, I think the work being done on the changing geography of Congress also helps us see that as a meaningful counterpart to the emphasis on presidential elections and the electoral college and that geography, which is extremely blunt. When you look at fine-grain county level, and district level, and even precinct-level data, we see how few precincts, districts, states, are up for grabs. I think that polarization results from the gerrymandering and the drawing of districts in that fashion. Also, the kinds of issues that are up for grabs, and are even potentially viable in public policy, are really restricted.

Brian: Yes. That's extremely helpful. Throughout our whole discussion, you were pointing out the ways in which our maps, our understanding of spaces, is not always just an innocuous exercise reflecting the terrain, but rather there are choices that we make sometimes that have real consequences so that we have to think about the intention and the acts that we have from a societal perspective. LaDale, this has really been fascinating. I want to thank you so much for joining us today. We really appreciate you taking some time to talk with us.

LaDale: Thank you for having me…

Implications for Researchers

- Geographic research can inform conclusions about social history.

- Maps of human activity can offer insights into political polarization and discrimination over time.

- The resolution of a map, or the degree to which it offers relatively fine-grained details, can affect the stories that a map might suggest about social life.

Suggested Reading

Krieger, N., Van Wye, G., Huynh, M., Waterman, P. D., Maduro, G., Li, W., Gwynn, R. C., Barbot, O., & Bassett, M. T. (2020). Structural racism, historical redlining, and risk of preterm birth in New York City, 2013–2017. *American Journal of Public Health, 110*(7), 1046–1053. https://doi.org/10.2105/AJPH.2020.305656

Winling, L. C. (2018). *Building the ivory tower: Universities and metropolitan development in the twentieth century.* University of Pennsylvania Press.

Information Needs and Poverty (2018)

One of the important stories of the early 21st century in the United States has involved changes in the information environment. Despite the explosion of information availability through the Internet, credible and useful local information has not been equally available for all people. This episode features a discussion of that paradoxical dilemma with Fiona Morgan, who previously worked at Duke University and various media outlets before founding Branchhead Consulting.

Brian Southwell: Fiona, we're going to talk a fair amount today about the needs that people have for information. Now, you've written extensively about those types of considerations and you've written about four general types of needs that people have; needs as consumers, workers, audience members, and voters. These are needs that academics have been talking about for decades but sometimes, rather than just thinking about the abstractions, it's helpful to think in terms of examples. Can you give us some examples of how the same person might have different sorts of information needs to function in their everyday life?

Fiona Morgan: Yes, absolutely. A lot of this is published in the article that I just wrote with my co-author, James Hamilton, who's a professor at Stanford; we worked on this for a long time, him as an economist and me as someone with a journalism background. The needs that you're talking about, just to walk through them, like a consumer, as a consumer, I might be seeking out information about what sort of phone to buy, or computer, or maybe what's on special at the grocery store.

As a worker, or producer, I'm looking for information that helps me do my job well or maybe get a job. That could mean trade publications. It could mean databases that my employer might subscribe to. That stuff can get really pricey because there's such a demand for it and the nature of that producer information is very, very different for people who are working lower wage jobs.

As an audience member, that category really is talking about entertainment. It's stuff that I'm going to turn to because it amuses me or interests me and it's just a way to blow off steam. It could be a really well-written article I read in a magazine because it's just interesting to me, or it could be baby animal videos on the Internet, which are a big hit in my house right now.

Then voter demand, which I think of in a really broad sense of civic information. Who should I vote for in the primary? What happened at the school board meeting last night? What the heck is going on with whatever issue of the day, and I want to be informed just because I care and as a citizen. There's a lot of overlap between these categories, which I think is important to keep in mind.

For instance, if I'm a real estate developer, then reporting that's in the newspaper about a zoning issue that just appeared before the city council is, for me, not just voter information, it's producer information because it affects my ability to make money. The same thing, I think, is true in a lot of the way that schools are covered right now. Schools might be, for most people, civic voter information, but it's also sometimes presented in a consumer framework in terms of parents trying to choose where to send their kids to school, or if they want to opt out and go to a charter or private school, that sort of thing.

Brian: There's so much in your perspective that's really valuable. Part of it is just this realization that information is not interchangeable. We think about this vast array of information that's out there, but we really need to go beyond that. I'm thinking about the amount of information in judging how we're

doing as a society, but we also need to pay attention to the type of information that's available and who has access to that, right?

Fiona: Yes, absolutely. I think the type of information and who has access gets at a lot. We talked about quality a little bit in our paper, and we're not talking about, like, is this article well-written or is it entertaining? Quality in this economic framework is really about, does this leave the person better off? Is this what they wanted? Information is what economists would describe as an experience good; you don't know if it suits your needs until you've already consumed it. That's why it's important to think about the quality of information that people are getting, meaning, does it serve their needs or not?

Brian: That's really important. It might be harder to just plan that in the abstract, do we need to get feedback from people or see how information is functioning. When you're doing some of this work, both in terms of your professional activities and some of what you're writing about and all that, I think, from a stance that maybe all is not right with the world, when did you start to realize that our information environment—or what you call our information ecosystem—isn't as robust and healthy as it could be? When did that start to become a realization for you?

Fiona: Gosh, I think a lot of people notice that all the time. There're a lot of ways that news, advertising, and just information in general fall short for everybody. I definitely noticed it as a journalist, as a reporter, specifically at the Indy[1] trying to cover the local community, when we had four reporters on staff and we were trying to make some really tough decisions about what to pay attention to. Just knowing all the stories that don't get told and asking ourselves some hard questions about why, are we really serving the people that most need it?

I think you see that, too, if you drive through a low-income neighborhood, and you see the kinds of advertisements on billboards, or the kinds of businesses that are there, you can get a sense of, this does not feel right, somehow. I think the big moment for me was probably while I was in graduate school at Duke in the Public Policy Program, that was around the time that the Knight Commission on the information needs of communities in a democracy published a big report. I really loved that framework, because there's so much about journalism or media policy that's really focused on institutions, and either propping them up or starting new ones.

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[1] "The Indy," or *The Independent*, is a local weekly paper in North Carolina.

This is really an orientation that's more about what information needs people have, and how are they being served. Then thinking about communities as a whole. That ecosystem approaches started to really take hold, then.

Brian: I really appreciate that on many different levels. Part of it is just even recognizing the hard decisions, for example, that journalists are making all the time and being thoughtful about this, and what some of the constraints are. In general, there's an opportunity for us to think about how well our institutions are serving needs. You alluded before, and we talked a little bit about the paper you have out with Jay Hamilton. I want to talk about two of the hypotheses that you lay out there because they're ones that I think are crucial, they're important, but they might strike some people as, not necessarily counterintuitive, but striking, I guess, at the very least.

You're operating not just as a former journalist, but as someone who appreciates an economic perspective. You've hypothesized, for example, that, generally speaking, relatively less media content is going to end up in our ecosystem that's designed for low-income individuals in a system like we have in the US. At the end of the day, there's going to be less information for certain segments of the population than others because of certain structural factors. Why would you predict that?

Fiona: I think it helps to look back. We talked about the demand for information. There's also a piece of this about supply so I'll set that up first. The way that Jay likes to talk about it is that there're five reasons that people are motivated to create information. One would be subscription. You'll produce information if I'll pay for it. There are some magazines, like *Consumer Reports*, where there aren't advertisements, you just pay for the information. Advertising is the other one. You'll produce information and you get paid for it by selling ads to people who want to reach me to get me to buy things.

That means you're in the business of selling people's attention and you produce the information specifically to get the attention of the specific people that the advertiser wants. Partisan motivation has to do with producing information because you want to influence how people vote or what political actions they take. What Jay calls nonprofit motivation, which is more of you want to change the world in some way, you want to change the way people think or act or behave. Lastly, it would be expression, and expression is certainly a big chunk of user-generated content on the Internet. It's a big chunk of other things, too. Artistic expression, it can also be civic.

I would say, theoretically, that the reason we can expect there to be less information produced for lower-income audiences is because for one thing, broadly speaking, data from the Consumer Expenditure Survey shows us that lower-income people spend less of their income on things like reading materials, on subscriptions. I think the biggest reason is advertising.

The US media system is a private for-profit system that is kind of distinctive in a lot of ways from that in other industrialized democracies. That for-profit system really grew up on advertising and advertising did a lot of great things for our media system, in that it allowed newspapers—starting in the late 19th century—to be independent of political influence so they weren't party organs, but it also has created this very attention-driven system. Certain people's attention is just worth more than others because they're going to spend—advertisers want people, not only who will buy the thing they're selling, but they also want to enhance the status of that product. There're a lot of ways in which advertisers may not want low-income people paying attention to or buying their stuff.

In that case, they actively want to dissuade that. I think there's even evidence that newspapers have tried not to circulate in certain places, not just because it wasn't cost-effective, but because it was less attractive to advertisers.

Brian: This is something that we have to think about, then, as a barrier to serving the needs of different groups and that's an important reason to be thinking about this. I also, before the break, want to talk about this other hypothesis you have, because it's potentially a bit controversial. It's this idea that individuals who experienced low incomes or have low incomes ultimately might end up being more vulnerable to deception through media campaigns than other people. When you talk about that, does anyone ever cringe at the suggestion that the people who we know to have less income also might be vulnerable to deception? How do you think about that and what are the ethical implications of that tendency?

Fiona: Yes, it's really important to be very clear about this, because what we're not saying is that lower-income people are dumb, or dumber than other people. There's so much really great behavioral economics and behavioral science research out there now about the effect of scarcity. Scarcity of time, scarcity, especially of money, worrying about money, scarcity of sleep, maybe, and the effect that that has on the brain and the brain's ability to make decisions or process information. That's really what we're talking about.

People who are desperate because they are trying to keep a roof over their heads or trying to get a roof over their heads, or they have a lot of financial worries, they have people depending on them, those situations can make people extremely vulnerable.

The most important thing that we want to emphasize is that there are people who profit from that, they profit from it very deliberately, and there's a ton of evidence around that. There's a lot of evidence around, for instance, the marketing for for-profit colleges, that they specifically seek out and target people who are financially vulnerable, people who are looking for a job on Google, they'll Google for jobs, will get ads for for-profit colleges, and then the search will take them through this funnel of trying to play to their vulnerabilities and their sense of desperation.

I want to point out that if somebody is looking for a really good primer on some of this behavioral econ work, the book *Scarcity* by Sendhil Mullainathan and Eldar Shafir is a really good version of that aimed at generalists.

Brian: Great. All right, well, you've laid out a good theoretical description, and you've helped us to understand why we're in the situation that we are in terms of people's information needs. In the second half of the show, I want to talk a little bit more about how we can meet some of those needs…

In the first half of the show, Fiona, we've been talking about your academic work, investigating and understanding the lives of marginalized people, and we've been talking a little bit about income, I'd also like to consider a related dimension, and that's this notion of geography. What do we know about the geographic distribution of news resources? As you look at a map of the United States, do you see an abundance of news outlets spread across the country? Or something different? How might we understand 21st-century access to news and information?

Fiona: Yes, that's a great question. We use geography, in our paper on poor information, as a proxy for income in a lot of cases. One of the reasons to do that is that we're not just looking at individual households here, but we're looking at the overall effect of the availability of news.

One of the things that happens is something we call the who-affects-whom phenomenon, which economist Joel Waldfogel has written about, which is that if I live in an area, even if I have a really high demand for information and I want to subscribe to five or six papers, if the people around me don't, then that means that there just isn't enough demand there to make it worthwhile for the information producers.

In terms of the distribution of local news, I think there's much, much less across the board all over the country. Phil Napoli has a really great paper out right now with the News Measures Project at Duke, looking at about 100 communities in the United States, and just seeing so much less news produced that is original to a given paper and is local. There's just less across the board, but I think you also see a pattern of when newspapers were sort of trying to start new additions and new communities, they went to the places where they thought they could sell ads. That would be places like midtown Raleigh, not Fuquay-Varina. Some of it is about how many people are there, but it's also about the income, and you see that in all the data from Nielsen, in these companies that are market research companies, that the income levels and the household expenditures in the aggregate really dictate a lot of where advertisers want to go and that dictates where the media goes.

Brian: Folks working in public health will sometimes talk about food deserts, situations where people have less access to fresh produce, for example, than you might expect. Is it fair to say that we also have a landscape where there might be information deserts in a similar way?

Fiona: Yes, I think that's true. That's the way I think about it. Penelope Abernathy at UNC Chapel Hill has done really great work looking at specifically community newspapers and how those have been shutting down or getting consolidated and then looking at the connection between the level of poverty in the communities where those places are.

I think just as with food deserts, with news or information deserts, often it's not just a desert, it's also a swamp. If you don't have high quality local produce and that sort of thing, what you do have is maybe not healthy food, but fast food. The same could be said for news and information. I think people try to fill the gaps as best they can. They may be getting their news from places that are less reliable or just relying on word of mouth or rumor.

Brian: Yes, that's because people continue to have those needs regardless and so we'll find ways to fill them. That's a great perspective. Let's talk a little bit about what we might do about all this. You've really spearheaded several efforts in this space. As a place to start, I'd actually like to talk about the name of your new consulting group, Branchhead Consulting. It's a unique name but the notion of a branch head can trace its roots to regional language usage here in the southern US, right?

Fiona: Yes, I got really enamored of this term when I started studying Southern politics with Ferrel Guillory at UNC Chapel Hill while I was in grad school. Branch head is an archaic term for the grassroots, and it refers to the little towns and villages where the creeks and the streams start that eventually lead into the river. The branch heads were the places where there were these little creeks.

I like this as a term because we talk in media about the mainstream, but what I'm interested in is what comprises that mainstream. When we think way upstream about the health of the environment up there, then we're going to have a more effective conversation downstream. I really like that. Just to give you a little bit of political background, Kerr Scott became the governor of North Carolina in the late 1940s and he upset the establishment because he was a farmer and he ran on a platform of, not race-baiting, but infrastructure.

He wanted to get the farmer out of the mud and create schools and roads that would create the infrastructure that set the stage, I think, for the governorships of Terry Sanford and Jim Hunt. His followers were called the branch head boys, so he had this network of grassroots folks who were lower income, who had been counted out and underserved, but they actually really showed up, and I just love that story, even though, I'm sure that they were all white boys [laughs]. Still, the idea that people who are counted out could actually really change things appeals to me a lot.

Brian: It sounds like part of your philosophy is you see promise and potential in working in these very specific local areas, but also not just from a place of charity, but that you actually see new possibilities for those contributing information and, ultimately, the utility of that approach. We live in a world where, in terms of communication, it's easy for some people to communicate with the other side of the globe with the touch of a button, and yet, you're really pulling our perspective down to a more local level. Do you ever run into resistance in terms of justifying that? We live in a global world; why are you operating there, or what's been your experience in terms of making a case for working at the branch heads?

Fiona: I've been really heartened, actually. Ever since I was in grad school, there started to be a shift in journalism, and I think even in social sciences, to some extent, to really thinking about the local because that's really where the biggest gap is in journalism. Also, each community is different. You cannot design some one-size-fits-all solution. This organization I really like called Local Independence Online News, LION, they are local news entrepreneurs,

and their director wrote this really great op-ed that said, there's not ever going to be a Pizza Hut for local news so stop trying to make that happen. Each community is different and I think it's by studying what's endogenous about those places, and understanding what assets they have, and how to leverage them, that we really get solutions that aren't going to be top-down and that are going to be sustainable.

Brian: Okay, it might be more difficult to imagine a national franchise type of approach, but what are some of the policies and interventions, then, that seem to hold promise? I know it's going to vary somewhat from place to place, but as a way of moving forward, what are some projects or ideas that give you hope in terms of changing some of the patterns that you've seen?

Fiona: Jay likes to talk about from it from a broader information perspective, thinking about the three Bs: Behavioral economics, bundling, which is essentially having one experience wrapped up with another, and big data. We're really talking about little data, but he likes the three Bs [laughs]. With behavioral economics, there's so much research that we have about choice architecture, presenting things to people in a way that's clear and cogent, not the fine print version but the really clear version that gives you the information you most need right then when you need it.

With bundling, we talk a lot about benefit bank as a model. People who come in for free tax preparation because they qualify for the earned income tax credit. They might also get, "Hey, we just filled out your tax return, do you want us to check and see if you're eligible for home heating assistance, or food stamps?" That's bundling. Data would be using data that we have to figure out who's not being served, and maybe what some opportunities are.

In terms of journalism, the things that make me really excited right now are specific projects for people who are thinking about this. One of them is Outlier Media in Detroit, which uses SMS text messaging, because a lot of people are not using the Internet very much because they don't have jobs where they're using it, but just about everybody has a cell phone now so SMS is really the best way to reach the largest number of people.

My friend Sarah Alvarez, who runs Outlier, will look at public records data. People who are renters in Detroit need to know about the properties that they're looking at to rent—are these places actually being foreclosed on?—because you can get kicked out of a house through no fault of your own. Sarah can look at what are the records say and she can give them really important consumer information that for them is not just about, "should I

buy an iPhone" but it's really much, much further down the hierarchy of needs. That's one example. City Bureau is doing some really great work in terms of civic information and paying people to go to public meetings and cover them, developing a lot of civic leadership and communities in Chicago that have been underserved. Those are a couple of examples.

Brian: So much that's inspiring. Part of what you're doing is creatively thinking about service provision for communities by virtue of engaging with information. I'm interested in how that aligns with your conversation with your journalism colleagues, your own sense of self from an earlier stage, and whether you think we need—professionally—to be envisioning a different frame, because you're talking about using the skills of reporting and journalism, but in a way that some librarians or information science folks might relate to, the way that some other professions might relate to.

Do we need to start calling what we're doing something different? Do you ever see resistance where journalists think, "Well, that's not quite—" Like, the project in Detroit absolutely is connected, but yet, it doesn't fit the same mold of putting inches on the front page of a newspaper. What do you think?

Fiona: I have not really encountered that much resistance, but I think I select who I hang out with to some degree [laughs]. I have heard people say things like, "Well, that's not journalism," and I just say, "Okay, that's fine."

I care less about the form or the format than I do about the function. I care less about the medium than I do about the need that it serves. I absolutely love talking to librarians, information scientists, they bring such a great perspective. I think everyone should be working together. It's amazing, because when I was working for Free Press in the News Voices project, we'd have forums in communities that have been underserved. We'd talk specifically, we'd name issues like race, racial inequities, and portrayals of people in local news. There're a lot of trust issues that I think are not contained in this paper, exactly, but are contained, I think, in the solution.

Some of that has to do with feeling that you're heard and feeling that history is being honored. So much of what news, I think, needs to provide, is actually the backstory presented to you when you need it. Especially, think about all the newcomers who are moving into the Triangle, and moving into North Carolina as a whole, who are brand-new to their local communities, and when you are starting to get engaged is when you actually need the backstory. Those are the kinds of things I love to think about; what's the role of history, what's the role of the archive in the news.

Brian: It's a wonderful place to stop for the moment because it's this realization that so many of the conflicts that we see right now are a function of people not feeling as though their story has been heard or their needs are being met, and that maybe that's partly a role we could play to bridge some of those gaps. That might have a lot more to do with some of the contemporary conflicts that we see than people realize, the extent to which their needs aren't being heard but they also don't necessarily feel like their stories or their perspective on what's important in history has been elevated or raised. Fiona, we're just about out of time, but I want to thank you for taking time today to explain all this and bring this to our listeners as a service as well. Thank you for joining us.

Fiona: Thank you so much for having me. It's great to talk to you…

Implications for Researchers

- Technologies such as text messaging might offer ways to reach people that other Internet-based platforms do not currently.

- Information about a person's immediate local area can be vital to their everyday life and yet economic forces in countries like the US have undercut the availability of certain types of local information.

- Those interested in addressing information disparities can seek to bolster local infrastructure for information sharing.

Suggested Reading

Hamilton, J. T., & Morgan, F. (2018). Poor information: How economics affects the information lives of low-income individuals. *International Journal of Communication, 12*, 2832–2850.

Southwell, B. G., Hamilton, J. T., & Slater, J. S. (2011). Why addressing the poor and underinsured is vexing. *Health Communication, 26*(6), 583–585. https://doi.org/10.1080/10410236.2011.575453

Art, Immigration, and Social Work (2016)

Everyday life is not easily contained in any one frame of academic reference, an observation that has invited researchers to attempt to draw from multiple disciplinary areas and use multiple tools to study social life. Mimi Chapman of the University of North Carolina at Chapel Hill offers a rich example of the value of bringing together multiple perspectives. She has used

photography to shed light on important stories about the challenges and opportunities faced by Latinx youth and their families. This episode explores her own journey in doing that work; it is a journey with origins in an art museum, which suggests academic research can draw inspiration from many different sources.

Brian Southwell: This is a fascinating story that I can't wait to share with our listeners with regards to your work. It all starts in an art museum one day, if I remember correctly. What was your inspiration for the work we're going to discuss, and then talk to our listeners about how this all came about.

Mimi Chapman: I think one of the really fun things about reaching the midlife stage is that, strange things begin to come together in your life. My current work is really that. Several years ago, you mentioned that I was a faculty engaged scholar. During that experience, we spent some time in the Ackland Art Museum at UNC Chapel Hill. At that time, they were doing an exhibit called Picturing the World, which featured photojournalists who had graduated from the UNC photojournalism program. I came across Janet Jarman's amazing pictures from her series *Marisol and the American Dream.*

That connected quite clearly with my own work at that time, which was working with new immigrant, Latino communities, specifically out in Siler City. That was the focus of my work as a faculty engaged scholar. I just remember being very struck by her pictures and thinking that they told a story that was very much like the communities that I was working with. At the time, in 2007, 2008, that was as far as it went. It wasn't really until 2010 that the idea struck to begin using those pictures in a more directed way.

Brian: Great. You then had this sense that pictures could be more than aesthetically appealing, that they actually might provide service and function in training and trying to broaden empathy from different groups. Why is it that you thought that photographs might be helpful in this regard where a range of other messages could have been used? What's special about the photograph and how is it that you saw it working? Ultimately, how is it been implemented in these types of trainings?

Mimi: As I said, there were other things that were coming together. I had read a book by Lisa Sanders called *Every Patient Tells A Story.* It was about things that have been lost, as medical technology has gotten more advanced. In that book, she talked about programs that the Yale Medical School was developing with their campus art museum to help young physicians bring

their inductive and deductive reasoning together. I had been curious about whether we could develop something similar for social work students. It wasn't exactly the same skills, not exactly what we were focused on, but there was an idea of understanding what my particular lens was that I brought to a situation, what was a student's particular lens, what's consistent over time, and could working with images in the museum setting help us do that?

I called over to the Ackland and colleagues there began to help me put these ideas together.

Brian: That's great. As you think, then, about packaging these wonderful resources to broaden the perspectives of a range of different professionals. You've worked as a teacher, but also I know that more recently you've done work with healthcare workers and this has expanded to any of the groups that regularly need to engage with incoming populations and populations with different backgrounds. I am always curious to know how we might be able to show or provide evidence that these things work. Have there been efforts to evaluate these types of efforts? Tell us more about that in your own sense of this as an area for evaluation research.

Mimi: Over time, what we do at the School of Social Work, is intervention research. That's a driving theme of our doctoral program and for all of our faculty. Certainly, engaging in all of this was about evaluation and about research, and it's also about service—all of that woven together. We began by trying to figure out ways to evaluate what we were doing. We started with very clear explicit measures, where people are telling you what they think about their attitudes, that sort of thing.

Just scales, self-report surveys, we did focus groups where people told us, "Yes, we like working with the images," as opposed to other things that people classify as diversity training. Those were the methods that we used on the front end. As the word grew, we really began to think that maybe we were tapping into something different, which was this notion that's getting a lot of press in recent years, implicit bias. To test that, we really needed to widen our team. That's when we reached out to social psychologists on the UNC campus, specifically, Keith Payne and his great work, and brought his measure, the affect misattribution procedure, into our work.

We've been trying to tailor the affect misattribution procedure, we've used it mainly with physicians in training at this point, to see whether we are indeed targeting implicit bias with some of this work as well as targeting people's stated attitudes.

Brian: For our listeners, then, who might have heard that phrase but may not understand fully what we mean by it, in a nutshell, how would you explain this notion of implicit bias? What is it you're really trying to get at, in terms of this as a potential problem, as a potential barrier to be overcome? In a succinct way, how would you describe that?

Mimi: As I've learned from my social science colleagues, or from my social psychology colleagues, implicit bias encompasses these quick gut-level reactions that we may or may not be aware that we are experiencing. Some of this is the way our brains work, that quick categorization that we do all the time about things that are hot button issues, but things that aren't, too. Quickly, I look at this, I say it's a chair. There could be some other elements of this object that would make it not a chair that I don't see right off the bat, but based on what I see, it looks like a chair. That categorization happens very quickly.

Many of us aspire to attitudes that would be welcoming to anyone we interact with. At the same time, we swim in a sea of messages about people that are different from us. When we swim in that sea long enough, those things seep in and they color how I respond to you and how you respond to me. They do that whether I want them to or not. There are lots of explicit attitudes that we need to pay attention to and I don't want to write them off. There's plenty of that. There is also the problem of this quick categorization that happens because of the messages that we're inundated with, and that's been the real challenge. They're both challenges, but a particular challenge for us is to think about: is there something that we can do that overcomes implicit bias, because that seems to be responsible, at least in part, for health disparities, for educational disparities?

Brian: It's a brilliant idea. This notion that there's a whole array of different perspectives that might be prompted by visual engagement that are going to be different than if you're just talking, and that you might also argue that it's easier for somebody to tell you what it is that you want to hear. Then, verbally, it's a little bit more difficult when you're looking at judgment on a photograph, where you might actually be able to point out their own implicit bias to people. I think there are probably multiple functions, then, that the use of photography plays in these types of experiences. One is partly as a tool by which people can recognize their own reaction, and then also, I imagine that there is opportunity to show people a range of different perspectives beyond what they've seen. Is that a fair characterization?

Mimi: Yes. What we hope for, and what we think is happening, our theoretical model about all of this, is that the photograph acts as a catalyst. It engages perhaps whatever our bias might be to begin with, but then as you discuss that photograph in a group, as you hear that other people have other perspectives on that photograph, and then perhaps as you learn more information through a caption, through other data, then you reevaluate what you see in that photograph.

As you have that experience over and over, Janet's pictures are wonderful for this because there's a real narrative arc that goes along with them. She's following a story over time. As you learn more and more about that, and if you can intersperse some additional data, then the participant, we hope, is learning there're a lot of assumptions that I make on a regular basis, even if I, as the facilitator, never point that out to them, it simply happens quite naturally. Then the hope is that that transfers into other situations.

Brian: That really sounds like a fascinating process. One also that sounds involved, that it requires some degree of guidance—that you can't simply leave people alone in a room with these photographs and expect this to magically happen.

Mimi: No.

Brian: It does suggest that in terms of the challenges of doing this work, it involves people, and offering guidance, and taking somebody through this journey, if you will…

Today we're talking about how new social work research has increased empathy among professionals working with immigrant students and populations. We're talking about connections between the world of art and social work and all kinds of other disciplinary areas. Mimi, let's talk about some of your work with other groups and populations beyond what we talked about in the first half of the show.

I know, for example, that you've done some work on migration in China and you've worked also with sexual minorities in various places. Have you found commonalities in the ways that minority groups have been treated or is each story really unique and there are important differences in these areas? If you look back across the scope of what you've done, are there themes that emerge, or is it really a collection of very different stories?

Mimi: I think the answer is yes.

Brian: To all of it?

Mimi: To all of them, yes. Both, every story, of course, is its own and, at the same time, there is an overarching theme, I should say, first of all, that the work with sexual minority youth has really been driven by students who have wanted mentoring to look into those areas and hadn't found that mentoring. That is not necessarily an area of expertise for me. It's something that I've learned about through my students. I want to highlight that for them, because that's really their work.

Brian: That's great.

Mimi: To answer your question, this spring I was at a little conference over in the UK and someone used the term precarity. They were talking about populations of individuals who aren't necessarily inherently vulnerable, they're vulnerable because of the status that society, larger society, puts them in for whatever reason. In that way, I think that is a commonality, that there are populations that occupy precarious spaces and that we treat in precarious ways. Therefore, there is vulnerability over and above whatever an individual's particular situation might be.

Brian: That's a very eloquent way of putting it in. I appreciate you bringing that perspective across all of the work that you've done. I'd like to talk more about your own personal story. As a social work professor, as somebody who's worked in several different contexts, how did you arrive where you are? Really more importantly, I guess, as to where the story started, how did you venture into this work to begin with?

Mimi: Well, really it started in a college English class, to be truthful. I was sitting next to someone who was talking about a volunteer program that they were involved in, where they were going into housing projects and doing recreation programs with kids after school. They invited me to come along, and so I did. I think it was my first experience in an environment like that, where I was an out-group member coming into a situation that was primarily African American at that time and in that place, working with kids there and understanding this idea—I wouldn't have had the language for it at the time—that there was a social context that really had an awful lot of control over how these young people were going to grow up and what opportunities were going to be open to them.

   That was fairly shocking to me at that time in my development. It went against the narrative that I had been brought up with, that everybody has an equal opportunity in America. It called that narrative in question. Through

that, I began to get interested in work that was more oriented toward social justice, and then I decided to go directly into a master's program in social work after graduating from college.

Brian: So much has unfolded since then. It's really been a remarkable career. I want to ask a question that's related, because this is a beginning to your career that starts with a moment of personal reflection. I want to ask a question that perhaps isn't asked as often as it should be, not just to you, but to others, because it involves both your personal voice and your reactions to the world in which you live. You're prolific not only as a researcher, but also in terms of commenting on the world, and then offering this reflection in various venues. I personally think that that makes you refreshingly honest. A lot of researchers I think sometimes feel the need to pretend that they don't harbor any personal emotion. How have you managed to balance the inspiration of your personal reflection with professional demands for "objectivity" that sometimes are called for?

Mimi: That's a hard question.

Brian: I know, that's true.
  [laughter]

Mimi: I guess, it sounds like you're referring to the little blog that I keep.

Brian: More than a little blog, but just in general. You certainly offer comments at times, right?

Mimi: Yes. The blog evolved out of I was doing work in China. I was sending some dispatches back here and there to my dean and he started— unbeknownst to me, he was sending them to our communications team. They contacted me and said, "Do you want us to set up a blog for you?" That was my first entry into it. Then I found that I enjoyed it. Writing has always been a part of my life. I was a Journalism and American Studies major and wrote for the newspaper in college and in high school and took pictures and things like that. All of that was in there, in the background, and then this channel opened to bring it back into my life.

In terms of the rest of it, I think because I was a clinician and had a career as a practitioner before becoming a researcher, I've never been quite convinced of the notion that you could be truly objective about anything to begin with. I think you have to do your best to hear all sides of whatever it is, but when you are a practicing clinician, you are combining, hopefully, good

evidence-based practices with your own personal way of being so that you are the instrument, in a way. There is music that people are going to like and, hopefully, respond to, but if I don't know how to play that piano well, or the piano is not in tune, or however the metaphor might work, then it's not going to sing.

That has stayed with me. I've never wanted to lose my identity as someone closely tied to practice and those experiences did prompt a lot of reflection always as my practice life went on. When I became a researcher, I just never let go of that.

Brian: That's a lovely description. I think that is probably the best we can do and it's healthy to just be able to continue to reflect on balancing all of those different demands. That is, I think, crucial for us to recognize the humanity of all of us as researchers who are doing this work and to realize both opportunities that that provides and limitations. I appreciate you talking about that.

I want to think about another aspect of your job, which is working regularly with students, and that's a framework and a perspective that naturally orients one toward the future. Thinking about these students as the ones that someday might go on to do work and practice and research down the line, what are some of the questions that they should be asking in their own careers, but also, for everybody who's working in the space that you're working in? What are some of the key questions that haven't yet been answered?

Mimi: To me, there are so many unanswered questions, so it's hard to choose just one, but some of the aspects that are important to me that I think we really need to work on as a field, and not only as social workers but as all of the helping professions in general, is thinking about how do we get some of these great evidence-based practices that we have developed out into the field? For many of them, a program will be developed, a program will be tested. There's a fair amount of expense that is involved in delivering that intervention in whatever way that it happens, not just the one we've been talking about, but lots of them. There's training that's required, there are those sorts of things. There's a measure of fidelity. If you're working in some terrific nonprofit that is trying to meet payroll every month, that's trying to develop new staff, how do you avail yourself of those kinds of experiences, because the training, these things, they can cost thousands of dollars. That's a problem. Somehow, these innovations that we come up with, that we test, that

we say, "Yes, these make a difference. They work," we've got to figure out better ways to get them to the people who can use them every day.

Brian: The whole question of dissemination and implementation has been a hot topic for lots of different disciplinary areas, but it's fascinating to think about in the context that we've been talking about today, even if you think about your story. Here you are, at the Ackland Art Museum, amidst world-class artists and art, and you're at a world-renowned university. On some level, one could argue that you have access to both incredible photography and other resources that made part of what you did a success.

That might be difficult to export as a model in places where they don't have access to the same level of resources. Is that something that you and your colleagues are starting to think about, ways that you might be able to package resources and make them available for other areas that may have fewer? Is that part of the work that's going to come next?

Mimi: I hope so. There are several things that have to come next with the work. We have findings right now that I'd call proof of concept, we're moving in the right direction. We're moving the needle a little bit on this, but our sample sizes are small, those sorts of things. First, we've got to fine-tune the intervention. We've got to see if it works with larger samples. We've got to do the basic science piece before we're ready to think about the dissemination piece. My museum colleagues talk about close looking. That's a term they use a lot. That can happen in a lot of different ways. That can happen with high-resolution images on a slide projector, it doesn't necessarily have to happen in a museum.

There is something very special about coming into the museum environment. It's very quiet, it's mindful, it gets people out of their routine, but that can happen in other places, in other ways. I think there are ways to do that. We also have added a component to the intervention, a photovoice component. My wonderful colleagues in the school of public health, Eugenia Eng and Alexandra Lightfoot, have really taken the lead on this, and some terrific students as well, and our community partner, El Pueblo in Raleigh. They have been working with local young people who take their own photographs, and then we have brought them together with physicians to talk about the question, "What I wish my doctor knew about my life."

There are other ways to use visual materials. There's not just one way. I was just recently at a conference up at The Museum of Modern Art that my

Ackland colleagues invited me to join them for, and there are people all over the country who are actually working in medical centers with images in different ways to accomplish different ends.

Brian: It's fascinating. That way, the photograph becomes a nexus where you're not just looking at its effects, but also at some of the potentially empowering effects of allowing or encouraging authorship by the students in terms of taking their own photographs. It becomes this lens moving in different directions. It's really great to hear about all of that. I really appreciate you sharing all this. It's certainly been a pleasure to listen to your perspectives today, Mimi. Thank you so much for joining us.

Mimi: Thanks. Thanks for having me. It's been fun…

Implications for Researchers

- Art, such as photography, can affect people in ways that expository writing and other forms of communication sometimes cannot.

- Intervention to increase acceptance of people from a diverse array of backgrounds can draw on the ability of art to encourage empathy and compassion.

- Evaluating social work interventions should require not only gathering evidence on outcomes but also evidence on whether interventions are fully implemented as intended; some interventions fail not because they were not a good idea theoretically but because staff did not implement the intervention as intended.

Suggested Reading

Chapman, M. V., & Perreira, K. M. (2005). The well-being of immigrant Latino youth: A framework to inform practice. *Families in Society, 86*(1), 104–111. https://doi.org/10.1606/1044-3894.1882

Violence

Teen Violence and Prevention (2015)

Phillip Graham has dedicated his life to helping youth and their families. One tragic challenge many youth face is violence. On this episode, Dr. Graham of RTI International discusses his work to develop and evaluate community interventions that respect the needs and values of communities.

Brian Southwell: Today, we're going to spend a fair amount of time talking about the lives of teenagers in the United States, different dimensions and aspects of that. One aspect of the lives of many teenagers is the occurrence of violence. This is something that happens in several communities every day. It's something that you can really help us put into context and think about. You've dedicated a large part of your career to really trying to understand that. I guess an initial question that listeners might have is, how does the US compare with the rest of the world in terms of violence and other related issues, like substance use?

How do we fit in? How do we understand that compared with other places?

Phillip Graham: Like most things, Brian, that's probably not an easy or straightforward answer because we can think about violence in many different ways. One of the things that we've done over the years is really think about violence in different contexts. For me, I've been most interested in youth violence and when we describe youth, that's between the ages of 10 and 24. In one respect the US is actually doing pretty well when compared with all countries, but, as I tell the folks, context matters. When you look at youth violence in relationship to youth violence in industrialized countries similar to the US, we're not doing so well.

As an example, I think in 2010, roughly about 4,828 young people between the ages of 10 and 24 were victims of homicide. One of the things that we also know is that homicide is the tip of the iceberg. Roughly 700,000 youth annually are subjected to injuries due to violence. When we think about how

we stack up against the rest of the world, we have to take that into consideration.

Brian: It's not just murders and death, there's really quite a range of violence we need to consider.

Phillip: Yes. There is geopolitical violence, which is very different from the violence we experience here in the United States. Then one you've seen in other countries, particularly in Africa, the issues around gender violence, which is, again, very different from the violence we see in the US. I often tell folks, it's more important to have a look internally at the comparisons, particularly in the US, where there's a great disparity between violence among African American males and the rest of the population.

On average, it's about 51 homicides among African American males per 100,000, compared with about 3 per 100,000 for white males. Those are the disparities I'm more interested in. It's not that we don't compare ourselves to the rest of the world, but we should be thinking about what's relevant to the young men and women we come in contact with day-to-day.

Brian: Many of the young people in this country right now, then, are experiencing a daily life in terms of the likelihood of occurrences of violence that's different from what other folks in another country are facing. How and why does that matter? It might seem like a naive question, but how do those disparities shape the lives people go on to lead?

Phillip: One of the things I talk to communities about is really understanding what's driving whatever the social issue is, whether it's violence, whether it's substance use, and really focusing on understanding the underlying causes and here my general mantra is context matters. What we often do is work with communities to help them understand what are the most pressing issues that contribute to violence. For example, one issue is around opportunities, we're at a time where youth unemployment is at some of the highest rates ever, and that's in rural America as well as urban America.

We see the relationship between limited opportunities and issues around violence. I think Chicago is a perfect example. So, everyone's heard the numbers on weekend shootings and violence going on in Chicago; the important question is why that's the case. For me, it is really understanding, in the city of Chicago, what are the local conditions that may be contributing to violence? That's from norms around violence, that's issues around gangs

and violence, again, that's issues around employment and limited opportunities. Each neighborhood has its set of factors that lead to violence.

What we really need to do is begin to dig down and understand, what are the pressing issues for young people? Based on that understanding, that's how we begin to develop strategies that really, I hope, change their trajectories, provide them with opportunities, and you can see changes over time. A classic example is around 1994, there's this term about the super predator, when everyone was fearful of African American males. At that time, homicide rates were around almost 70 per 100,000.

Now, you look at those same rates in 2010, they're down to 28. There's a direct correlation between the drug trade in the early to late '80s and early '90s that contributes to that. As communities began to focus on that issue and understand this was in part related to opportunities, you saw a tremendous drop in the homicide rate. Are we where we need to be? Absolutely not, but again, that example, when we start looking at underlying causes and focusing on them, you can see those numbers drop significantly.

Brian: What you're partly suggesting, then, is that we really probably need to take something of a systemic look, we need to look at communities as a whole, and not necessarily just to be thinking about individual lives, per se. You talk a little bit about the notion of this direct relationship between the availability of opportunity and then the likelihood of violence. Maybe you can unpack that for our listeners even a bit further in terms of thinking about a story that would relate, how is it that somebody gets from a position of being unemployed to then seeing this as violence potentially—pardon the phrase— as maybe even a functional or a rational path, given the circumstances?

What does that look like? How might that unfold in a way that listeners could relate to?

Phillip: There's a term, social capital, that's been widely used. To some degree and extent, probably overused, but a part of that is a development of relationships that lead to access to resources. It can be a key factor in changing the trajectory of any young person regardless of socioeconomic status, race, or gender. A classic example is many mentoring programs, particularly in inner cities where you are focusing on young men of color, as an example, who have limited opportunities, but you pair them with someone who may not be from their community but looks like them and has access to resources.

Through that relationship, you take really super bright individuals full of potential and really redirect their energy and their focus. I think there are anecdotal examples, but also real data-driven examples of the role and importance of mentoring and improving the outcomes of young men and women. Again, for me, it's really about having as many opportunities and access to those opportunities as possible. Anyone willing to take advantage of those has an opportunity to really change their life circumstances.

Brian: That's great. What's actually very noteworthy about that realization, or about acknowledging that, is that generally speaking, if you listen to pundits, if you listen to a lot of talk about characterizing the moment that we live in right now, supposedly, we're in this grand moment of a networked society, everywhere you turn people are talking about social networks, how connected we are, how interconnected. You can make an argument that we really have oversold that notion, that it really depends, and that there's quite a bit of variance in terms of how connected any one person necessarily is.

There are some folks that certainly are, and others that have intense networks, but maybe not with access to the same kinds of resources. It really becomes important for people to have the notion of bridging ties, of really being able to connect to different circumstances than one grew up with. You also, in noting that, are offering an optimistic look at what might be done. It'd be interesting to hear, from your sense of looking ahead, as your listeners are thinking about these issues, what can we do to improve the lives of teenagers, day in and day out?

Are there things that can be done by individuals? Are there paths for future research and things that organizations can be doing? What's your sense of that as a prescription for the future and ways to improve some of these situations?

Phillip: I think of most things in life as requiring a comprehensive approach to whatever the issue is, or issues are. As an example, it requires activity, strategies, at multiple levels by multiple systems, multiple institutions working simultaneously. For me, every institution has a role. Schools have a role, and I know this is controversial, beyond just providing academic guidance. Churches have a role in terms of setting standards around how we expect people to conduct themselves. Individuals have a role in terms of giving back.

For me, that's been one of the most important things, that trying to figure out how can I change the life, even if it's the only one—and I know that's

somewhat clichéd—if I could change one life that's a success. One of the things we also know is that having a caring adult is one of the most powerful predictors of good outcomes. How can we each, as an individual and as institutions we work in, serve as caring adults? I think strategies, and I go back to mentoring; it has been one of those key things, but also understanding, what are the risk factors young people face from day-to-day?

I tell folks, it makes no sense whatsoever, not to understand the communities people come from and when they come to school, as an example, if you understand what a young person had to deal with at home, how can we expect him to be successful in school? That's a role for schools that they need to understand. What do we need to do to maybe support, insulate, and even protect young people when they make that transition from community to school?…

Brian: Phillip, something that was really striking about the first part of our discussion is that we're focused on a conversation about violence, yet we didn't mention guns, specifically. We didn't mention the specific circumstances of any one particular violent act. I guess it really points to this notion that there are an interconnected set of factors and really, if you're doing great research on this, you come to recognize that it is a wider picture. Would you agree with that?

Phillip: Absolutely, Brian, I didn't talk about firearms or weapons because they're really the mechanism, but they aren't the underlying reason. We know, unequivocally, that most homicides and most violence among young people involves firearms. I think over 75% of homicides involve a weapon of some sort. For me, that's not the important issue, it's really what motivates a young person to take the life of another young person, not whether they're using their hands, a knife, or a gun. There's a wonderful book called *Manchild in the Promise Land* that suggests this whole notion that the only thing that's changed over time is the weapon of choice.

For me, it's really getting down to figuring out what are those motivations that make someone choose to be violent versus not. Sometimes those circumstances are very complex. That's why I didn't talk much about firearms. That's not to say that guns aren't a major problem with violence in the US, and we still have a lot of work to do around it, understanding safety, access, and the like. At the end of the day, what are the motivating factors that go along with that, that are critically important?

Brian: And as we talked about, the lived experience of teenagers day in and day out, I guess that's another part of that equation, our perceptions of social dynamics. We can get into and talk about issues of racism. We can talk about issues of constraint in terms of a feeling of frustration with the police force, broader dynamics like that. How often do those issues come up in the research that you've done? Have you found that that seems to be a recurrent theme, something that we ought to pay attention to?

Phillip: One of the things that has troubled me for forever and a day is a notion of self-worth and the reality that some people don't believe they'll live beyond the age of 24. The reason we talk about youth 10 to 24, is that 24 is a critical year. If a young person can get to 25, their life expectancy increases significantly. When you come from a place or position that, if I live to be 25 I've had a successful year, what you do completely changes, your delay of gratification changes, because you realize that you are potentially on this earth for a very limited amount of time.

Like any person, you try to do all that you can in that short amount of time. The question is, how do you get young people to understand that, one, their lives are worth more than that, that there are possibilities. I think this is where the issues around perceived racism, perceived limited opportunities come in.—I say perceived because whether they are perceived or not, they're the reality of young people. We have to figure out a way to change their perspectives or show them that there really are opportunities and that if I put in the work, that I'm guaranteed an opportunity for success.

Many people don't believe in that even if they work hard. One of the issues among African American males is the issue about acting white and dumbing down. Many super bright young men and women, particularly males in inner cities, will fail in school because it's perceived that success is acting white, as an example. For them to survive in their communities, they choose a path that they think is much safer than one that could provide them tremendous opportunities.

Brian: Absolutely. And when you talk about perceptions, it's probably not necessarily going to be very easy to change under some circumstances, because some of these factors you're talking about are real. Racism still exists to a dramatic extent, in this country. Nonetheless, there are things that could be done, it seems, to enliven the imagination of folks to think beyond, as you say, that point of 24, 25 years old. Just think about what a short life that must

seem, to live from 12 to 24. It also seems like, in many ways, this is work you've been drawn to, and are passionate about, obviously, in so many different ways.

I'd like to talk a little bit about how you came to this point in your career, and how you've been able to spend such a long period of time doing this powerful work. One question to ask is, how you came to this to begin with, and why do this work? Why move in this direction? What are some aspects of this that have inspired you to have the career you've had?

Phillip: Life has an interesting way of working out. Yesterday, I spoke to a group of public health students and I told them, if they looked at my resume, it would look like a very well-organized life plan. I told them it's only by luck, God, and happenstance that those things came into being. I got into this work in part because of a job I had in the early 1990s, living in California. I was recently married, and had moved to California and started working in a job that was community-based. It was around substance abuse prevention at a time where we weren't talking using terms like evidence-based strategies.

It really was about getting communities involved in tackling issues. This was in the early 1990s, when crime within Black communities was at some of its highest rates ever. I had the fortunate opportunity to work in communities, but also go back to Washington, DC. We had leaders and researchers talking about communities of color. What I realized was, there were very few people of color—in fact, no people of color—on the stage talking about communities of color. I would come home and I would complain to my wife, and she said, "Well, either you're going to do something about it, or stop talking about it."

That conversation led me to apply for graduate school, because I still wanted to do this thing called public health. I was able to identify someone at the University of North Carolina at Chapel Hill who was working on youth violence, and so I came back to North Carolina, pursued a doctorate, and focused on, at that time, exposure to community violence. One of the things I was concerned about is not that being a victim of violence, but just by seeing it every day in your life, how would that impact your own behavior. That's how I really got into this work.

For me, getting a degree was a means to an end for access as well. I wanted to have the ability to sit at the table and to have these conversations around what we thought would help communities of color, and particularly African American males, address violence.

Brian: You talk about acting and doing and you certainly have done quite a bit, outside of your role as a senior researcher at RTI. You've also been quite involved in getting some community organizations up and off the ground. I wonder if you could talk just a little bit about some of that experience and what it's been like to integrate that with the rest of your career?

Phillip: I was fortunate enough to grow up in a two-parent family, my dad was there every day, and still is. I think I may have taken that for granted, looking at the importance in having role models in your life. For me, one other thing I felt was also important is how do you give back, and ways to do that, that would be meaningful to young people. I mentioned earlier mentoring has been a big passion of mine forever. I was fortunate to be a part of the founding board members for Big Brothers Big Sisters of the Triangle. At that time it was Big Brothers Big Sisters of Durham and Orange County, and it's grown over the years; I've been super proud to watch the organization grow.

Likewise, I've also been a member of the 100 Black Men of Triangle East Chapter, which is a part of a larger organization called 100 Black Men of America. Its motto is, "They'll be what they see." For me, it is finding organizations who are focused on mentoring as a way to show young men and women that there are opportunities out there, and be a support for them. My civic life is probably even crazier than my research life because, at the end of the day, I do truly believe in RTI's motto about changing the human condition.

It would be very easy for me to go home, and sit on the couch and watch television, but I'd much rather be in the weeds as much as possible, working with young people, working with communities. As I tell them, if we can take their passion and my science, I think we can do great things together. That's been one of the motivations behind what I do.

Brian: Absolutely. Well, and there is that important realization that research and science are important parts of the equation alongside the other activities, and that there's a nice marriage there that's possible between the two. Just one final note. Do you ever find it difficult or challenging to do the research you do and not necessarily be out every day, intervening? You certainly are doing that in your volunteer life. Talk to us for a minute about that final challenge as you move ahead and think toward the future.

Phillip: A couple of days ago, someone whispered in my ear that I was management, and I told him, I completely, fully, reject the notion that "I'm

management." What I meant by that was that I still like to think of myself as an applied researcher who, as I mentioned, is in the weeds, and maybe I'm fooling myself, but I love working with communities. As I tell them, because they are on the ground. I try as much as I possibly can to not forget where I started my work. For me, it is often a challenge, as you become successful in the type of work we do, this management piece does come in, or you're directing, and not doing.

I have worked really hard to try to balance that out so I am doing, but it is a challenge. Maybe it's a good challenge, and that means we're doing more good work. I had every opportunity, and that's why I do the work I do civically to remain engaged and to be as close to the ground as possible.

Brian: Well, that's fantastic. You certainly are a role model for a lot of people, for all of us, as you balance those different parts of your life. It's very interesting to hear, what might seem like a narrow topic, it really does touch so many different aspects of our lives. It really is a good reminder of taking a holistic look at how those issues are interconnected. Phillip, thank you so much for taking this time to sit down with us. I really appreciate all the work that you're doing and for you to take some time out of your busy schedule to talk with our listeners.

Phillip: It was my pleasure. Thanks again for the invite…

Implications for Researchers

- Researchers interested in violence prevention can distinguish between the availability of tools such as firearms and factors that might encourage poverty or distress in a community.

- Aspiration and self-worth are vital dimensions for researchers to consider investigating in attempting to address adolescent well-being and disparities between adolescents in their experiences with violence.

Suggested Reading

Graham, P. W., Yaros, A., Lowe, A., & McDaniel, M. S. (2017). Nurturing environments for boys and men of color with trauma exposure. *Clinical Child and Family Psychology Review*, *20*(2), 105–116. https://doi.org/10.1007/s10567-017-0241-6

Graham, P. W., Kim, M. M., Clinton-Sherrod, A. M., Yaros, A., Richmond, A. N., Jackson, M., & Corbie-Smith, G. (2016). What is the role of culture,

diversity, and community engagement in transdisciplinary translational science? *Translational Behavioral Medicine*, *6*(1), 115–124. https://doi.org/10.1007/s13142-015-0368-2

Graham, P. W., & Mooring, P. A. (2009). The emerging role of prevention and community coalitions: Working for the greater good. *North Carolina Medical Journal*, *70*(1), 50–53. https://doi.org/10.18043/ncm.70.1.50

Violent Emergencies and School Preparedness (2018)

What can social science tell us about the state of preparedness of our schools to cope with violent emergencies? It is a question inspired by myriad tragedies in the United States in the 21st century. This episode features Suyapa Silvia and Josh Hendrix of RTI International (at the time of the discussion) about their work on that topic for the National Institute of Justice.

Brian Southwell: We're going to talk about a wide range of things today, but we are going begin by talking a little bit about this new study. Suyapa, can you tell us about this project and give us a sense of its scope?

Suyapa Silvia: Sure. This was a 2-year project funded by the National Institute of Justice and the Department of Justice. It was funded through an initiative called the Comprehensive School Safety Initiative. Speaking of the National Institute of Justice, I do need to make a statement before we begin, that, while the research that we will describe today was funded by National Institute of Justice, we do not speak on behalf of the Institute, but only represent RTI in our work as researchers and our opinions are not necessarily those of the Department of Justice.

Now, this work is something that we felt was needed. There was a void in the research regarding this topic so we focused on a national study of how federal state and district guidelines help schools prepare for violent emergencies. We're looking at a model that includes states, districts, and schools, and how guidelines are passed down from the federal to the state, and then the local levels.

Brian: There is an ongoing study, then, that you're here to talk about. Before we get into some of the details, I want to start with an observation that I think is important for any discussion of schools in the US, and that's the observation that they're actually not all exactly equal in terms of circumstances and resources. Certainly, we hope that all students in the US

end up receiving the same basic opportunities to learn, but we know there's wide variation in the nature of districts and schools across the country.

I'm interested, Suyapa, in terms of your observation of similarities and differences when it comes to preparing for an experience of violent emergencies. What's your sense of how schools are similar, but also some of the ways that you've started to see that the literature suggests they might be different?

Suyapa: I can think of several ways that we can talk about the differences and similarities in schools. One is the likelihood of a violent emergency. Another would be how schools prepare. A third one might be how prepared schools currently are. Let me start with the first one, the likelihood of a violent emergency. Unfortunately, we have come to realize, in analyzing the locations and the types of schools where violent emergencies have occurred, especially since the 1999 tragedy at Columbine High School, that this type of event can occur anywhere, in any part of the country, in rural or urban areas, in small or large districts.

A couple of years ago, we prepared a map that showed the locations of all of the school shootings that have occurred since 1999. It was striking to see how well distributed those locations were. Sadly, schools are similar in their vulnerability to this form of violence. However, we do have some preliminary data indicating that districts that are located in cities, and those with the largest enrollments, may experience more violent emergencies compared with other districts.

The lesson we have learned is this, that no school is immune to a violent emergency. Therefore, all schools need to be prepared. Now, there are some differences in how schools prepare for violent emergencies and it all depends on the characteristics of those schools. The physical environment, for example, can present challenges. A large school or a school with multiple buildings will present logistical challenges for evacuation and control of entry and exit points.

Schools that are located in rural areas may be far away from first responders, so their response time for emergency teams may be greater than those in urban areas. Another difference to consider is the student population. As you might imagine, preparing for violent emergencies will look very different at an elementary school or at a school that includes elementary grades than at a high school due to the ages of the students and what can be expected from them in an emergency.

Brian: Something else that's really striking is your perspective on the fact that it's useful to take what we might call a multilevel approach. You're looking not only at individual schools but you're also thinking about the districts that they're embedded in or the states that they're embedded in. Why is that important for us to think about when we are considering readiness? Why is it important to look not only at the school level but also at these other levels?

Suyapa: Yes, we were intentional in our design because we really wanted, in particular, to study how those guidelines and recommendations are shared from states to districts to schools. It even starts at the federal level. Since 2013, the US Department of Education, in collaboration with other federal agencies, has provided guidelines to schools and districts. They also provide guidelines for college campuses, by the way. Those guidelines are passed on by the states.

Now, the states play a very important role in disseminating these best practices and also making resources available, specific to those schools in that state. They can coordinate with other state emergency management resources and they can make certain resources available to those districts. Then, at the district level, it's important to understand the extent to which the districts are following these national guidelines and then passing them on to the schools. That is a big focus of our study, how that happens.

Ultimately, though, each school must tailor their emergency plans to their own environment based on the size, the spread of their campus, the ages of students, the school's location, and other such characteristics. We want to see that interplay between state, district, and school levels.

Brian: I think some of our listeners might be surprised to know that these national guidelines exist. Josh, I'm going to bring you into the conversation. Can you explain to our listeners a little bit about what thinking has been done at that national level in terms of standards for preparedness?

Josh Hendrix: Sure. As Suyapa mentioned, the US Department of Education, along with several other federal agencies, FEMA, Department of Justice, and others, produced a substantial amount of information on best practices for school emergency preparedness. The guidelines are extensive so it wouldn't make sense to try to describe all of those, but there are some very fundamental principles that schools should be following.

Every school needs to have an emergency operations plan in place mapping out what specific actors in the school community are supposed to do when an incident occurs. They should have a planning team that is made up

of multiple individuals representing a diverse set of perspectives and interests. They should be conducting ongoing assessments of their own facilities and their own community to better understand how equipped they are to respond to an incident.

For instance, they should be conducting a hazard identification assessment to really understand what threats they are most vulnerable to and, therefore, what they need to address in their emergency operations plan. I think a larger observation we can make is that schools are really expected to be using scenario-based planning approaches where they are really thinking through hypothetical scenarios and how different actors in the school would respond. It's not enough to be prepared for emergencies generically. They're really encouraged to be customizing their plans for specific types of incidents. As that list of threats and hazards continues to grow, they really have their work cut out for them.

Brian: It sounds like it also is partly an ongoing process as new types of example scenarios pop up. That needs to be integrated into planning as well. I know that you all are in the midst of data collection right now as we speak and so you can't speak definitively about the state of preparedness of our schools according to the survey work that you're doing. Josh, I'm wondering if you can give our listeners a sense of the dimensions that you're measuring? What are some of the types of measures that you're using in assessing states and districts and schools?

Josh: Just to back up a bit, I would say that one of the first observations Suyapa and I had when we were brainstorming about this project was just the massive amount of information out there, not only at that federal level, but we could see, looking at the Department of Education, at the state level, at their websites, along with the Office of Emergency Management, they were producing their own materials and their own recommendations. Then at the district level, we could see that school districts were also developing and disseminating their own materials.

What we didn't know at the time was whether the district and state best practices mirrored those at the federal level. Obviously, this is an important issue so we developed a series of measures that allowed us to look at the harmony between district and state recommendations and those federal guidelines. At the state level, we've conducted a document review of all school emergency preparedness materials we could find via the Department of Education websites. At the district level, we've administered a survey to safety directors or superintendents.

What we're doing is trying to analyze whether those federal recommendations are playing out in the best practices put forth by the state and by the district. In other words, are states and districts recommending or requiring their schools to have an emergency plan? Are they requiring those safety teams to be in place, or for certain core components of an emergency plan to be there, evacuation, lockdown, shelter in place protocols, and things of that nature?

Then, of course, at the school level, we're also interested in the extent to which schools are following those federal guidelines. We're also interested in some of the nuances and the process of emergency planning. What are the practical challenges that schools face as they try to prepare for violent events? What does it look like when students have to be reunited with their parents after an emergency? What things are schools doing to train and educate their students and staff on emergency preparedness?

Brian: Right, right. So much in that that's compelling just in terms of the orientation of your project. You're being careful not to reinvent the wheel here. Partly you're taking a systems approach and trying to understand your data and information that exists. Part of the role is coordination of existing data, and then your collection of new data as well, which I think really reflects the nature of our governance systems and our school systems in the US, a mix and hybrid of all these different levels.

It makes sense that your analytic techniques would reflect all that different analysis, it's so great…

Brian: In this second half of the show, I want to spend some time talking with each of you about your personal decisions to engage with emergency preparedness work in schools.

If each of you thinks back to your own childhood, for example, chances are that you don't remember hearing about school incidents all the time in the news. I wonder, if either of you is struck by just the fact that we now do this work or need this work in today's world, and I'm also interested in how each of you came to do the work that you're doing. Suyapa, what motivated you to conduct this type of research?

Suyapa: This has made me reflect about my 26-year career at RTI and how much that trajectory has mirrored the changing times. I actually started out focusing on drug use prevention back in 1990 and evaluating programs and policies that were supported by the Drug-Free Schools and Communities Act of 1989. That was the funding source for schools in terms of drug use

prevention. Then, over the next years, concerns over the school environment and how it was impacting the learning began to emerge. Congress reauthorized the act as the Safe and Drug-Free Schools and Communities Act. They added safety as an activity that schools could engage in with funding from the Department of Education.

My research focus shifted from drug use prevention to evaluating school violence prevention programs and policies. We did learn a great deal about evidence-based programs for violence prevention during that period, and many schools implemented very good programs. You may recall, there was bullying in particular, and improving the quality of relations among students and adults in the schools.

In 1999 came the Columbine tragedy, which shocked the nation, of course. While we had had school shootings before, to me, this event has come to mark a much darker period in the history of school safety. Then, of course, 13 years later, we witnessed the horrific tragedy at Sandy Hook Elementary School. I think at that point, we all stopped and wondered if this kind of horrible event could happen anywhere, even in our own communities.

Brian: Yes, yes, absolutely. It's certainly a great reminder of how often social scientists are engaged with our real world. There are different issues that emerge as concerns and we have the privilege in a lot of ways, and also an opportunity, to try to serve through engaging with any of those dilemmas. As difficult as that can be sometimes to do that work, I thank you for sharing that, Suyapa. Josh, I'm also interested about your journey to get here. How does school readiness fit with what you set out to study when you, for example, begin your graduate training?

Josh: It's interesting and, as we've discussed, I would say I was pretty deeply affected by Columbine as well. I was a high school student at the time and I can remember the fear and anxiety and uncertainty that that one event introduced into the average school day. I think in a lot of ways that incident really changed what it means to be a student in the United States. If you think back to the dominant narrative and those years, it had a lot to do with this idea that these were socially isolated teens who were emotionally disconnected from their peers and their school, and who had harbored a great deal of anger for what they perceived as rejection.

I think that idea of rampage shooters being these outcasts, or loners, or emotionally fragile youth flying under the radar of school administrators was very interesting to me. I think in a lot of ways, it did inspire some of the work

I went on to do in graduate school, where I was looking at how some of these sentiments of feeling accepted and feeling like one belongs and how those feelings can intersect with delinquent or other problematic behaviors during those teenage years.

I don't think I ever thought I would be looking at or focusing on what schools are doing to insulate themselves from a violent attack. I'm glad that I am. If we think about what's one thing we have learned from these incidents over the years, it's that they're incredibly unpredictable. It can be a very daunting task for schools to try to proactively identify individuals who are capable and motivated for this kind of violence. I think in a lot of ways, this is the power that schools have, to make sure their facilities are secure and that they have a comprehensive safety plan and that they're doing all they can to train and educate their students. It's great to be on a project that hopefully will help us to better understand some of those efforts.

Brian: It certainly seems like part of the theme that you both have reflected on is just the fact that our schools sit within a broader society and that they're at an intersection point with that society and they're not immune from some of the larger trends we're seeing. Perhaps the right way to approach and engage and help our schools is to acknowledge that and to also think about how we can plan for dealing with all those issues, just like we need to deal with an uncertain future for the rest of society as well.

I appreciate you both talking about your personal paths and intellectual journey to get here. I'd like to look ahead for a few minutes, to the future. When I think about the future of school preparedness research as an academic area for inquiry, there's a lot there that we could talk about. One question that we might start with, though, is just to think about the possibility for this current project as being a cornerstone for future research.

Maybe talk for a minute about how you envision this in relation to the research literature that's going to unfold. Suyapa, do you see what you're doing now as baseline, as a conduit, continuous with your other work? How do you envision what you're doing in the larger context of research in this field?

Suyapa: When Josh and I were looking at the available research on this question of preparedness, we found that there was very little on the subject. That's when we decided to study this question on a national scale, the basic question being, "How well-prepared is the average school for such a violent emergency?" This is what we set out to do because we know there had not been a national survey or a study at this scale before.

We were able to do this with a fresh start, but it really will become a sort of baseline. Our understanding, at least, of the diversity of preparedness across states, across districts, across schools, even among schools in a district, that is going to form the impetus for additional, more in-depth studies. Josh has this new study that is looking at how the implementation of those plans has gone, a companion study. It's one thing to prepare these emergency plans, it's another to execute those plans. That's really important to understand.

Brian: There's a literature out there, I'm using the catchphrase, on dissemination and implementation research. This actually relates to that as well. I'm actually interested as to venues where you are able to publish this work or in conferences or areas of audiences for this from an academic standpoint. Josh, we were talking a little bit before we got on air about how well this is being coordinated with public health or other sectors, whether there might be future opportunities there. To date, is a lot of this a small number of researchers working in this area, or have people identified connection points to other disciplinary areas? What's that situation like for you all?

Josh: I think there are a lot of individuals working in this field who are, in some ways, working to help schools become more secured or to help them be better prepared. As far as research goes, this is a pretty small group of folks that are really working to understand some of the mechanisms by which schools become prepared, or some of the challenges that they face. I would say it's a pretty esoteric group at this point.

Brian: Suyapa, do you see opportunities to either draw on work other folks are doing, for example, weather-related disaster preparedness, or to maybe bring your work out to those points of discussion? I know that doesn't sound like it's quite happening yet, but is that something that you or your collaborators might be in a position to help with?

Suyapa: At this point, we have just begun this type of work. We have not really reached out to other researchers in other disciplines, but I think that at the school level, you have to know that they are now introducing yet another hazard that they have to guard against. They have to work to put together a plan that includes not just the fire drills and the tornado drills, but now includes emergency preparedness drills. From their perspective, they have had to pull all of these threats and hazards together into one comprehensive plan.

Brian: In just a minute or so we have to wrap up. Josh, Suyapa just mentioned the companion study that you're working on. Can you give us a bit of a sense of what's that going to entail?

Josh: Sure. This project started earlier this year, and it's looking at school preparedness from a bit of a different angle. Whereas the study we've been discussing is really focused on those written guidelines and written emergency plans, the companion study is interested in how much students and staff even know about their school's emergency protocols. In other words, we're getting at comprehension of emergency procedures among students and staff. Do they know what to do when something happens?

We were inspired by reading dozens of case reports of events in the past and some critical examples in which students and staff, knowing what to do, had a dramatic impact on the attacker's ability to cause damage, including the number of injuries and casualties. We're hoping that we can not only create awareness about, perhaps, certain deficiencies in training and education curriculums, but that we can also produce some valuable information about the most effective ways to communicate emergency procedures to kids and to the school employees.

Brian: Great. I want to thank you both for everything that you're doing. For our listeners who are interested in finding out more, where can they turn for more information?

Suyapa: Josh and I are both listed on the external RTI website, and that's www.rti.org. We welcome any inquiries. Eventually, we will have some publications and conference presentations, and there will be a final report available at the National Institute of Justice website.

Brian: Great. Well, I thank you both for being here. As usual, when I have colleagues on from RTI, I then disclose to my listeners I'm there also. I also work there with you all as well, although not on this exciting work. Thank you so much for everything that you've done. Thank you for taking time to be here today, Suyapa, I appreciate it.

Suyapa: You're very welcome.

Brian: Josh, I really appreciate you taking time out of your busy schedule to talk with us.

Josh: Absolutely. Thanks for having me…

Implications for Researchers

- Despite news headline attention to school violence, we face important empirical gaps in our knowledge of how prepared schools are for violent emergencies.

- Assessing improvement or decline in school preparedness over time requires baseline data for comparison.

- Various organizations produce recommendations and materials on school preparedness but historically this information has not been well-organized; future research could assess how to better coordinate information sharing between organizations.

Suggested Reading

Hendrix, J. A., Kennedy, E. K., Trudeau, J. V., & Henniger, A. (2018). *Bullying and violence on the school bus: A mixed-methods assessment of behavioral management strategies. Report for National Institute of Justice.* RTI International.

Social Science and Testing for Sexual Assault (2019)

One recurring theme that emerged over the first 6 years of The Measure of Everyday Life *was the notion that measurement matters. Without measurement, we often do not have evidence of the existence of a phenomenon, which undermines effort to address problems related to that phenomenon. On this episode, we talk with Patricia Melton of RTI International about her work to ensure that sexual assault is measured when it happens, as a step toward eradicating the violence. This interview underscores the value of research that draws on bureaucratic records to answer important questions.*

Brian Southwell: I'd like you to help our listeners understand the scope of the problem that we're talking about today. Your team has been studying the state of sexual assault kit submission in various places. Can you first explain to our listeners what exactly a sexual assault kit is, and the extent to which many kits have remained unsubmitted?

Patricia Melton: A sexual assault kit is a kit that contains everything that is needed to collect forensic evidence essentially from the crime scene which, in

this case, in sexual assault, is a victim's body. A lot of times we think of it as a package of swabs and envelopes and all those wonderful things that are needed to very carefully collect that forensic evidence. I'm going to refer to them as sexual assault kits throughout this entire conversation, because when you just say kits, that means a lot of different things to different people. I mean, model airplanes come in kits.

I think it's important to remember that when we talk about sexual assault kits, it is a violent crime, and it is an assault, and we are collecting very valuable forensic evidence that can help put perpetrators away and provide an opportunity for healing for our victims of sexual assault.

Brian: We might just think about it in terms of the mechanical tools, but it's really a package that includes human evidence. It's a really almost—sacred is the wrong word, but an important entity, and I think that the phrase suggest that, right?

Patricia: Absolutely. Unfortunately, what we are collecting are biological forensic samples left by a perpetrator on a victim's body. It's important evidence, it's incredibly powerful forensic evidence, and it needs to be collected in a safe forensic manner, and submitted, and tested.

Brian: A key question that this whole situation prompts is, why we have this backlog? Why are these sexual assault kits going unsubmitted? You and your team have found various answers to that question. Some of them we might talk about, they directly involve human perceptions and human beliefs, right?

Patricia: You're right. The underlying causes for why these sexual assault kits remained unsubmitted to the laboratory became what I call this second backlog in our nation. We usually talk about the first backlog, which are the sexual assault kits that are submitted to a crime laboratory and are waiting to be tested. Today, we're focusing on unsubmitted sexual assault kits, and that speaks to a very different problem in our nation. It is a complex problem.

There are several facets as to why these sexual assault kits accumulate, but you are correct. Our perceptions are, in my opinion, formed by our experiences and our education. Unfortunately, we previously did not understand the trauma that a sexual assault victim endures during that assault. We didn't understand how that trauma manifests itself in the responses that a sexual assault victim provides to law enforcement, or to whoever they're disclosing to, and how they talk about what happened to them.

That failure of understanding, that lack of knowledge that we had, previously led to a situation where what a person saw when a victim of sexual assault tried to explain what happened to them, they said, "Well, this is odd. Why is this person behaving this way? They're not responding in a way that I expect them to respond," and that's all due to not understanding the impact trauma has on a victim of sexual assault. We have this knowledge now, and it's so important that we educate ourselves in that knowledge.

Brian: There's so many different dimensions to the situation that you're describing, that involves real human drama and interaction in different ways. It seems to be the case that maybe under some circumstances, folks are not bothering or not moving forward because of confusion or because of a sense that, well, this doesn't line up with what I thought would be the case, and so I'm just not going to necessarily bother going further.

In this instance, that perceived lack of coherence in the story is actually leading to their administratively not moving forward with submission. Is that one of the possibilities of what's happening?

Patricia: It is one of the aspects of why these sexual assault kits accumulated. It's so important because—I'm going to just focus on law enforcement right here—I want to be very clear that not being trauma-informed affects not only our criminal justice system individuals and stakeholders, but as a community as well. For law enforcement, they're specifically trained to find the flaws in your statement, to find where's the person lying, where are the inconsistencies, because they've been trained to interrogate suspects.

Now, we have to flip that and say, "You now need to be trained on interviewing a victim of sexual assault. It's not an interrogation. You have to approach these differently, with open-ended questions, you're not looking for the inconsistencies," because quite frankly, one of the effects of trauma is an inability for the victim to talk about this in a consistent manner.

Brian: Rather than having folks in a stance of the default being maybe dismissing, instead we need people to be inquiring in a way that's open and accepting, and I can imagine that being a shift in the mindset. You talk about different types of backlogs. Can we get a sense of the extent to which you and your team and folks working on this issue have been motivated, do we have a sense as to the scope of this nationally?

What are we talking about in terms of numbers of sexual assault kits that are unsubmitted? Or do we have estimates even around that?

Patricia: That's a wonderful question and it's something that a lot of people are asking. The national Sexual Assault Kit Initiative program, and the Training and Technical Assistance part of that, assist with the grantees from that program to actually do an inventory of their unsubmitted sexual assault kits. As a complex situation, we assist with that process. From that data, we're looking at over 70,000 unsubmitted sexual assault kits. I want to emphasize that that's not necessarily the whole picture.

We think we're only starting to see an estimate of the picture. For example, if you have a state that did their inventory with state funds, that's not reflected in our data, because our data are only capturing those inventories that were conducted using the Sexual Assault Kit Initiative funding, that they received. We're only one part of what I think is a much bigger picture, but as a researcher, that's a question we must find the answer to.

Brian: There're so many different layers in which this matters. Ultimately, for these cases to move through the system, that matters both in terms of justice, but also just in terms of the phenomenon and understanding the scope of the crimes that took place. We can't have that counted in our measurement without the cases moving through the system.

I know it's difficult to speculate on that, but it's really important, I think, to point out that maybe we're at a tip of a larger iceberg there. You're doing this very important work in terms of getting things counted and trying to understand the dynamics around the submission process. I'd like to see if we might be able to draw some lessons learned or some ideas from the work that you and your team are doing. Given what you all are finding at this stage, do we have ideas about what might be done to rectify the problem? Are there paths forward? Are there ways in which there are at least some aspects of the challenges we face that maybe could be addressed? What's your sense of that?

Patricia: I think we absolutely have a path forward, and I think we have several options that we can take. Definitely, training is a key element. We've got to become trauma-informed. Once we have that training, we can take that information and create the policies and practices that are victim-centered and trauma-informed. Not only support the criminal justice process as you said, testing these sexually kits and solving these crimes, but also supporting the healing process for our victims of sexual assault.

Within the Training and Technical Assistance project on our website, those resources are available to everyone. You do not have to be a grantee in

the Sexual Assault Kit Initiative program to use those resources. We highly advocate working forward in a multidisciplinary team format, because the perspectives from all of the disciplines involved are so important. We emphasize the role of really partnering law enforcement with victim advocacy, and also prosecutors with victim advocates.

We really look for ways to engage in a manner that not only addresses the root cause analysis that might be unique to a particular jurisdiction, but what are the other common themes more nationally recognized, and we help address those, resolve them in a sustainable manner so we avoid this in the future.

Brian: We need to move to a break here in just a minute, but before that, I just want to talk about one phrase. A key one here that I think you are suggesting is important for us, for listeners out there hearing our discussion and wondering exactly what you mean by trauma-informed. What's a succinct way of introducing that idea for folks who maybe are not aware of that phrase yet?

Patricia: I think it would be safe to say that being trauma-informed means recognizing the post-traumatic responses that an individual will display when you interact with them. Being aware of them, recognizing them, and tailoring your own response to accommodate that in a very safe, healing environment for that victim.

Brian: It sounds like it's something that I can imagine being important at all different stages, and really, anybody working in this arena ought to have that perspective. It's one that refers to what we know in the abstract, but it might help inform the way one approaches any specific case as well. I appreciate you introducing that because that's a phrase that gets used sometimes, and I think people don't fully appreciate exactly what that means.

We're not just talking about the person involved as to having been informed by that trauma, but really, all of us understanding what it means for us and for society for this to have happened. This may be a new understanding relative to what we had 10, 20, 30 years ago, and that's another important piece of this as well…

Brian: Today, we're talking with Patty Melton of RTI International about work that her team does on understanding and trying to cope with the backlog of sexual assault kit submissions and the lack of submissions that's

happening in this country. It's been documented as being a major concern, and perhaps a reason why we're not fully taking account of the extent of sexual assault in this country. There are a lot of different dimensions and angles to this.

Some of our discussion has involved specifically administrative details with regards to the criminal justice system. Patty, you and I were talking a little bit at the break. You made a really good point that this is about more than just criminal justice. The work you're doing, the lessons learned, there are real implications here for different facets of society.

Patricia: Absolutely. I think it's so important that we, as a society, in a sense become trauma-informed and aware of our own responses. There've been a lot of cases where a victim may disclose to a friend or a coworker or a peer, and not be supported, for the same reasons that our law enforcement folks and our criminal justice folks were not supportive. The lack of being informed about the effects of trauma and what those post-traumatic responses look like can cause even us to not believe someone, or not provide them with the support and assistance they may need.

It's a much bigger problem. I never wanted to say, "Oh, it's a criminal justice issue." I think that's where our focus goes, it's really much more global than that. I think we need to be aware of that.

Brian: I really appreciate you pointing that out because there's a specific process of submitting sexual assault evidence kits, but then there are also these moments of crucial conversations that may be happening, that might seem like a quiet moment here or there. Not necessarily having larger implications, but they may very well have all kinds of implications. You're rightly sensitizing all of us to that. I really appreciate that. Patty, in the second half of the show, I also want to talk a bit about the past and the future.

This work is really at the intersection of lots of different dimensions of social science and research and other systems. I want to talk a little bit about your own professional journey toward doing this work. I'm curious how this project fits, or maybe doesn't fit, with past research efforts that you and your team have been involved with. I'm wondering if you can tell us a little bit about that backstory?

Patricia: Sure. I think I'm a little bit different than maybe some of the other researchers you might run into from RTI, because I actually come from the practitioner world. I'm a forensic geneticist. I started my forensic career

working for the Department of Defense identifying human remains. I started right after September 11th. I actually came in to help assist with identifications of human remains from the flight that went down in Somerset County, Pennsylvania, and the flight that hit the Pentagon directly.

From there, I did identification on human remains from military conflicts and issues, including Operation Enduring Freedom, Operation Iraqi Freedom, and even World War II. I come from a military family, so for me that was a wonderful place to be and really rewarding work to do. When you pursue a career in forensic genetics, the criminal justice system for me was much more of an ultimate goal.

I switched over into the criminal sector. I was in a forensic laboratory doing the testing on these sexual assault kits and testifying to those results and educating law enforcement and prosecutors about what DNA technology can and cannot do for their cases. It was an interesting place to be because I see it from that practitioner side, and I actually left that and pursued an academic position for several years, and then ended up missing the criminal justice system.

This is how I came into RTI, because RTI allows me to take that practitioner background knowledge that I have, take my academic research interest that I have, and really blend them together to try to improve policy in practice in the criminal justice system.

Brian: There's a lot that's really interesting in that, but part of it sounds like you've been within the system, and you still hold deep respect for its possibilities. Some of the critique that might be offered, or some of the lessons learned, or some of the implications of research that you're doing, they're all intended to inform and improve a function for our society that it sounds like we all should deeply believe in. That's a really interesting journey. You think about, on some level, real connection points, though, for all these different chapters, because you're talking about the complications of dealing with biological evidence in a lot of cases. That turns out to be ethically and practically a real challenge on so many different levels, and yet crucial for us to answer lots of different questions.

I think a lot of listeners will find that just absolutely fascinating. I think it makes sense that it would take somebody with all those different perspectives to really be able to lead in this arena. I think for some of the questions we might raise, it may not even be clear to people exactly who the right person, who the right expert, is to deal with, X or Y, in your question. Your sense is this is almost an inherently interdisciplinary area.

This is not something that only people in this small segment are working on, but many of your meetings probably involve tables full of people with lots of different backgrounds. Is that fair to say?

Patricia: That's 100% fair to say. Ideally, if you're going to approach a sustainable, improved response to sexual assault, it must be from a multidisciplinary perspective. Our research team is composed of social science researchers, criminology researchers, practitioners/researchers like myself, and straight-up practitioners. From law enforcement, victim advocacy, prosecutors, biological forensic evidence, sexual assault nurse examiners, social science folks.

We all come together to look at sexual assault in this project and say, "How can we help improve policy and practice? How do we take national recommendations?" Some of which I've been involved in helping to draft. "How do we get them implemented? How do we bring everybody together?" We educate, too, our grantees are working with us. You've got to have a multidisciplinary team as well, you cannot solve this problem working in a silo. It will not happen.

Brian: You might fool yourself into thinking you've got it answered, and chances are you haven't. I'm curious about where we might go next in this general arena. What are some of the key and most important unanswered questions that we're facing about this specific issue, or about related aspects of using forensic evidence, and then to answer societal questions?

Patricia: I think an immediate question is, what really is the scope of unsubmitted sexual assault kits across the nation, as we talked about? I think that's an immediate one. I think other pieces that I'm really interested in are, as we've worked with our grantees, and especially our law enforcement agencies, and they've opened up, they've changed policy and practice, they've started working with victim advocates, and they're building a great rapport and trust with their communities, they're seeing the reporting rates for sexual assault increase.

Now, some folks may look at this and say, "Oh, this is a problem. We've got more rapists out there." I don't think that's what's happening. I think there's a trust and a relationship that's been established between our criminal justice system and our community. Our community is responding in a positive way, saying, "This happened to me, and I know you're going to do something about it. You're going to help me. You want to help me."

I think that's powerful. I'd like to see us really do more work on that and really tease apart the dynamics of how that's happening and why that's happening, because I think that's the next step we have to take.

Brian: It's crucial that you point that out because we see this happening in different aspects of public health, for example, where a screening modality will improve for cancer or some other disease. The impact of that is that rates go up, but because we're detecting more. I think similarly here, it's so important to sensitize us to that. On some level, crassly speaking, it may seem to get worse before it gets better, but that might be a good sign that we're reaching and serving more people justice here than we were before.

Patricia: I absolutely agree with that. We also don't have a really robust estimate for how many people are victimized sexually, or exposed to sexual violence, because we rely on the people who are willing to either, a, report, or b, willing to respond to these surveys. It's my hope that again, as we rebuild this trust or facilitate a trusting relationship with our communities, as reporting comes in, more people will be willing to also talk about that victimization.

We can really start to understand where these predators manifest and behave. We just don't know enough. If we know that, I think we can help our victims so much more.

Brian: It really just underscores the importance of doing this work and this research and asking these questions. I wonder, I suspect several people listening today would be similarly inspired to try to help or do something in this arena. For folks that are in an early career stage, or are students now, are there certain skills that are going to be important to doing this work in the future?

Are there ways that people say, "I want to get involved in this work a couple of years down the road," are there certain things that people should be doing now to get trained, or things that you all find yourself needing in terms of skill sets and experiences?

Patricia: I think certainly early career professionals who are looking at a social science background, criminology background, psychology background. In those avenues, I think that's a very natural fit. It certainly aligns tightly with the core research focus that we see on our team. Also, if you're in a DA's office, or that's where you think you want to go, or a forensic laboratory, or the criminal justice system at any level, just get trauma-informed because you can be a motivator for change and leadership in those disciplines as well.

Brian: That's great. Well, Patty, I want to leave a little bit of room here in addition for folks that might want to get involved with this work. There are a lot of folks who are involved with this work, who may have been inspired by learning about your project, and who have ideas, or who want more information. I'm just curious for some of the folks that are working professionally here, where can people turn who might be working on sexual assault cases, and they're interested in this work generally, or they have questions? Are there some places that they might be able to turn to, to learn more about this project, or related parts of the initiative overall?

Patricia: Everything associated with this project and the national Sexual Assault Kit Initiative itself is housed on our website. That's www.sakitta.org. Everything's there, it's open and available to everyone. I would suggest, please, go there.

Brian: Great. Well, that's really helpful because I imagine in terms of the longer-term scope of this, it's fair to suggest that you all have accomplished a lot, but we're at the beginning of a longer journey here as well. This is an issue that people are likely to be investigating and working on for a while. It's my sense, anyway, that this has been a growing initiative, but there's a lot of work yet to be done.

Patricia: Absolutely. We are always looking at the sustainability of the Training Technical Assistance Project itself. Part of that is saying to our agencies out there, or anyone interested in sexual assault response reform, "Take those resources, pack them into your own curriculums."

Brian: Great. Well, Patty, we're just about out of time. Thank you so much for joining us. I really appreciate all that you brought to the table today.

Patricia: Thank you so much for having me. It's been my pleasure…

Implications for Researchers

- Multidisciplinary and interdisciplinary social science teams can affect the achievement of justice for victims of violence.
- Without measurement, certain phenomena such as sexual assault can be invisible to organizations and systems.
- Without procedures in place and resources to process information, key evidence can sit, unavailable to the legal system.

Suggested Reading

Hendrix, J. A., Strom, K. J., Parish, W. J., Melton, P. A., & Young, A. R. (2020). An examination of sexual assault kit submission efficiencies among a nationally representative sample of law enforcement agencies. *Criminal Justice Policy Review, 31*(7), 1095–1115. https://doi.org/10.1177/0887403419884730

Melton, P. A. (2020). *Enacting an improved response to sexual assault: A criminal justice practitioner's guide* (RTI Press Publication No. OP-0066-2007). RTI Press. https://doi.org/10.3768/rtipress.2020.op.0066.2007

Education

College Readiness (2016)

Educational research can help us understand the state of a generation's preparation for advancement as well as help forecast our own collective well-being. Laura Knapp of RTI International has dedicated her career to studying educational opportunities, financial aid policy, dropout prevention recovery, and college and career readiness. This episode features insights that are useful not only to families with children currently in high school but to policymakers considering investments in our future. The discussion highlights the importance of defining concepts and setting up mechanisms to collect data necessary to answer research questions.

Brian Southwell: It's a pleasure to have you here today. There's so much that we can talk about, but I want to first talk about this phrase of college and career readiness. There are numerous instances in which people might have heard that phrase in recent years in news coverage about state legislatures or federal government policy. For those listeners who have school-aged children, they might've even heard that phrase in interacting with their child's school. But for those who might be less familiar with why the concept is important, I'd like you to explain both what we mean by the idea of college and career readiness, and also why is it that we've now heard the words "and career" tacked onto the phrase? How can you explain that for our listeners to better understand?

Laura Knapp: On the surface, it really means exactly what it sounds like—high school graduates are leaving high school with a diploma ready to begin academic coursework in a postsecondary institution without any remedial help or able to enter a career and be productive in the workforce.

Brian: Great. We really have this orientation toward the future, then, in terms of thinking about having graduated—are they ready for the next step? Thinking collectively about where we are in the United States, how would you characterize our general readiness for college at the moment? Are we serving today's students better or worse in this regard than in previous decades?

Laura: That is absolutely not a simple question to answer. Some students are being served quite well, and some students are not. We see a tremendous difference in the quality of education and student performance by a whole variety of factors, as you might imagine, but the two most significant factors that we look at are income and parent education level. Almost across the board, students who come from families with middle to higher income—where at least one of their parents has some form of a postsecondary degree or certificate—are much more likely to succeed educationally than those who don't.

Brian: So, it's fair to say then that we certainly don't have uniformity. That part of the story is really one about differences, and there's a really multifaceted picture. That leads, in some ways, to a question then I want to ask: I always like to try to channel the thoughts of listeners who might be skeptical about why, in a particular week, we're talking about a topic. They might have skepticism about the topic being important as an area for study, so let's do that here.

What would you say, Laura, to the critic who contends, for example, that as long as the top universities and colleges in the country keep their standards at high levels and they're filling their classes every year, maybe we don't have a problem, per se? They might think there's always going to be variation among students; in fact, our college admission system has baked into it a sense of hierarchy, and some students are going to be more or less ready. What would you say from that standpoint, does that suggest that there's not a crisis here or an important area to investigate?

Laura: I would want to answer that question in two different ways. First of all, thinking about the students who are successful and the ones who aren't, what happens to those? Nationally, approximately 80% of our students graduate from high school within four years. About 60% of high school graduates go directly to college, and about 60% of those earn a degree or certificate within six years. If you think about 10 freshmen starting high school, 8 of those 10 will graduate within 4 years with a high school diploma; of those 8, 5 will go directly on to college; and of those 5, only 3 will earn a degree in 4 years. What happens to those other seven, and how do we make sure that they are productive members of society and are living up to their potential?

Brian: In many ways, it's about ensuring when we have all this potential in a generation how we might best work with that potential so that people are

realizing the fullest version of themselves—but it's also about being productive for all of us collectively. This is obviously a topic that you are passionate about, and I think you've done a nice job of justifying why this is appropriate for us. I'm always curious as to why people, themselves as researchers, go down particular paths. I'm curious as to why you've opted to dedicate your career to this general area. You've been in high school and college just a few years ago, of course, but why did you personally continue to focus on that throughout your professional career?

Laura: For a couple of reasons. I think the most significant goes back to my parents. My father did not have a college education, and it was a huge regret for him. I heard from him my entire life about the importance of education beyond high school and living up to your potential. My mom was the flip side. She went to the University of North Carolina at Greensboro—which was then a women's college in the 1940 at a time when most women did not go to college and after having grown up on a cotton farm in rural Cleveland County, North Carolina—and it truly and tremendously opened her world. So, I got it from both sides: I got it from the one parent who didn't experience it and the other parent who did, which turned to flip positive.

Brian: Now that's great. College and universities can play such a crucial role, but there are many experiences where people did have opportunities that didn't necessarily work out well, and there are so many stories, I think, underlying. You talk about an area like this, and it's just fascinating how important it's been in terms of the lives that people have led. So, it's really inspirational work and respectful. I think your perspective allows you to think about the different backgrounds and perspectives that people have and all the different reasons why people may or may not be ready to attend. It isn't often just a matter of choice, per se.

Laura: Right.

Brian: I want to talk a little bit further about the idea that people might graduate high school and yet somehow not be prepared to enter college or pursue a productive career. To some, it might seem obvious that this would be the case, and others might really wonder how there's this gap between finishing in a public or private educational system at the high school level and then moving on to a postsecondary level. What explains what accounts for that, and how has that come to pass in a society like the United States?

Laura: It's because, at some point in the pipeline, there's a disconnect between high school graduation requirements and postsecondary entrance requirements. There are many students who finished high school with tremendous grades and AP credits, and they've sailed through, done very well, and are fully prepared and ready to go to college. But then, there's a whole other group of students who struggled through high school, barely met their high school graduation requirements, graduated, and then ended up on a college campus unprepared to do the coursework. About 20% of first-year college students have to take remedial courses.

This is a tremendous disadvantage for them, because not only are the remedial courses the same price as an academic course for credit, but there is no credit. If you end up having to take two or three math classes at the remedial level to make up work that you didn't learn in high school, that you're paying for three courses that don't count toward a college degree. Despite the financial burden, the emotional burden is almost more intense for many students. Also, it's a burden for their parents who have been told by their state that their child is a high school graduate and ready for college, and then they arrive on the campus to find that they aren't.

Brian: This notion of an invisible and underappreciated burden, I think, is really important, and I'm glad that you're able to highlight that for us. Just as we move to the break here, one last question before the break: You've spoken about the possibilities for using data to support the development of college and career readiness programs. Is it the case that in some instances these programs exist? They're trying to get students ready for college, but they haven't really carefully tracked what works and what doesn't. Can you offer any examples of how using data might help us all to improve these types of readiness programs?

Laura: Sure, I'd be glad to. Many of the folks who work in student support areas say that they aren't data people. They don't do research—they work with students. They're more focused on the students in the room and helping them to overcome hurdles and achieve goals. They're not about collecting data on what they're doing, but without data to prove what they're doing is a success, how do they develop support and get funding. It's essential that they be able to do that kind of thing. I'd love to mention just one moment a program here in North Carolina that does a very good job, both with serving students and collecting the data to support their findings.

That's Communities in Schools of North Carolina. They work with community partners and 396 schools throughout North Carolina to provide services for students. Last year, they served about 160,000 students throughout the schools at a general level, providing mentoring, tutoring, and academic support. Even more importantly, there are 19,000 students who had even more severe needs in the areas of attendance, behavior, academics, and even mental and physical health. By surrounding these students with a community of support, they were able to significantly change their lives. After students received intensive services, 96% were promoted to the next grade.

Brian: What a success story, right?

Laura: Less than 1% dropped out of school.

Brian: That's remarkable. I don't think we spend enough time celebrating that there is real progress in some instances, right?

Laura: Yes, there is.

Brian: That's great, even here locally. I really appreciate you raising that as an example. It sounds like, in that case, they're certainly, in that program, using data to learn from past performance to improve for the future in an iterative way.

Laura: Exactly—all their services are evidence-based.

Brian: Excellent. Then thinking about evidence-based services, what we're talking about here is really formally using peer-reviewed evidence that's gone through and been vetted to inform future practice. It sounds like that's happening here in at least one instance. That's great.

Laura: Yes, it is…

Brian: We spent time before the break focusing on the experiences of high school students in many ways. For a moment, I want to delve a bit deeper into a slightly different population, as we think about what are sometimes labeled as nontraditional applicants for college, or even career training programs at different stages in life. Laura, what do we know about the readiness of these nontraditional applicants? For example, people may have graduated high school years ago and are only now interested in pursuing or able to pursue a college degree, or maybe in changing careers? Is that population a major area of focus for researchers in this area? What's the newest in that regard?

Laura: That is absolutely a major area of focus. Adult students, as you can imagine, have a whole host of challenges that your traditional-aged students do not have—everything from juggling a full-time job to family, children, and other responsibilities, and increasingly, responsibilities for aging parents as well. I'd like to tell you a little bit about a brand-new program just a few years old: College for America, supported by Southern New Hampshire University, for the completely online competency-based, associate's degree program. It's designed to try to meet the needs of some of these adults who have not been to school for a long while, and perhaps they're not really up on their study skills the way a just-graduated from high school student might be.

As I said, it's online, it's work at your own pace, and it's all project-based, so it's not the traditional listening to a lecturer and taking multiple-choice tests. It's working at your own pace much more as you would do in a professional job. We're just seeing successes from this program. As I said, it's just a few years old, so we're just seeing the first graduates come out, but it's a very promising model. There is a lot of prior education there.

Brian: I could imagine both in terms of convenience, but as you said, it also offers a different modality for engagement that just might be appealing to folks who don't necessarily have the time or even want to sit in a conventional classroom and be lectured to, per se. Who can imagine just the challenges of everyday life in terms of family or later working in a career and trying to juggle all that? It sounds like this is a welcomed development to allow us to offer training and education to a different group who holds just tremendous potential, so that's exciting.

Speaking of changes, I'm curious whether changes in universities and colleges themselves have anything to do with some of the challenges that are facing today's students. We can look at both universities and colleges, and we can also look at the workplace environment, which itself is changing. I guess one way of thinking about this is that this is not a static problem—there's dynamism here, we're seeing changes globally, we're seeing technology changes, and we're seeing different pressures on universities and colleges. What are some of the ways in which these various changes are reflected in some of the new initiatives or innovations? How is it that affecting our ability to prepare students, and what might be done about that?

Laura: That's a very good point. When looking at our economy, which is increasingly knowledge-based, universities and community colleges have to make course corrections in order for their students to be able to succeed in an

economy that, as we said, is growing and changing. There was a report from the Center on Education and the Workforce at Georgetown University that identified the foremost in-demand competencies in the labor market as judgment and decision-making, communication, analysis, and administration. Our colleges and universities are absolutely evolving to meet the needs of this new economy, but it's even more than that.

The same study reported that by the year 2020 the United States economy will grow to 165 million jobs, and 65% of these jobs will require some postsecondary education and training beyond high school. Also, 35% of the job openings will require at least a bachelor's degree, 30% will require some college or an associate's degree, and then the remaining 35% can be filled by high school graduates. If you look at the current rate of production from our colleges and universities today, that's the number of degrees and certificates that are coming out. We're going to be five million workers short by the year 2020, and the bodies to fill those jobs need some kind of education.

Brian: We're not really just talking about doing this for the sake of some individuals, but really, collectively, it's going to become a need or a necessity for us. It helps to stress the urgency, I think, of doing this work, and that's a compelling way to look at this. Let's talk a little bit about some innovations that have been developed in terms of getting people ready for life at college. One idea that might seem intuitively appealing to some people is the notion of allowing access to college resources before college enrollment. In other words, we might think about trying to offer opportunities for folks to step foot on a college campus, either literally or metaphorically during high school, for example.

Now, you've had a chance with some of your colleagues to write about the success of such programs for publications like the journal *Educational Policy*. I'm not sure that all of what you found has always been completely intuitive for all of our listeners—it's a really interesting area in terms of the evidence. Can you summarize for our listeners what you found today?

Laura: Sure. Going back to something we talked about at the beginning of the interview, the two factors that are the most predictive of success in education are income and whether your parents have college experience. A lot of my research has looked at two of the largest student support programs that are both federally funded: GEAR UP Program and the TRIO Program. Collectively, these programs work with students in middle and high school to help them succeed in high school and then move on to college.

There are TRIO Programs that work with college students to help them stay on track and graduate and even programs that work with adults who don't have a college degree to help them get enrolled.

Universally, these programs are focused on low-income disadvantaged kids who are potentially first-generation, meaning neither their parents has a college degree. What we found is that if these programs are successful, of course, the academic advising support is very important, but it's also broadening the students' thoughts about their own possibilities and getting them onto a college campus. If you didn't grow up in Durham or Chapel Hill so that you have a college campus right down the street and it's part of your life, actually setting foot on a college campus helps you to believe that it's a possibility for your future. Cultural arts and field trips, which might not be possible because of income if you go to a more disadvantaged school, are all things that show kids possibilities.

Brian: That's great. It sounds like you're literally putting a field trip together and allowing folks to step foot on a campus, which can be helpful. Just from a critical perspective there, is it fair to say that that is a panacea, per se, or there are conditions on that at all, or are there supports? Are there any caveats to that sort of idea? Or generally, maybe I'm trying to do this for all of our students, because it does seem to have a supportive or broadening effect in terms of one's imagination?

Laura: I would say that it's a factor, but alone, it doesn't solve the problem. That's because if you're not academically prepared, as we've already talked about—if you didn't receive the academic skills and knowledge in high school that that college is expecting you to have when you arrive—then there's the financial part. We haven't even really talked about that yet. It's the whole area of financial aid and grants and loans for students, but then at the heart of it, the student has to believe that they can.

Brian: Certainly, there are many students who could be the final piece of the puzzle, and then for others, that might be the beginning of a journey where they're also going to pick up financial literacy skills to understand financial aid, or they're going to understand and receive academic support. There are just multiple pieces to the puzzle, all of which seem to be, in an interlocking way, important. That's really helpful to hear. I want to turn our attention here, in the last segment, to our discussion toward the future.

Almost inherently, with education and career readiness, it's about the future, but I want to think about the future of research in this area.

We often have listeners to this program who themselves are thinking about what they want to do down the road, and maybe we inspire a person or two to engage in a particular topic. For that listener, or for your colleagues or for folks who work with you, what does the future of research into college and career readiness seem to entail? What are some of the big unanswered questions that we should be addressing?

Laura: To that, I think I would say that education, as we talked about, is not a simple area to research. There are four audiences perhaps, or players in this education game, which are all very important, starting with the student, the student's family, the teachers, and the schools—whether it's elementary school, high school, or college. Then there are the needs of the economy, because ultimately, the students are going to be used by the economy and hired by the businesses. Finally, there's the whole area of policy—federal policy, state policy, and then local education policy, which all play into the game.

We've talked about the disconnect between high school requirements and higher-ed requirements, but to the extent that these entities can coordinate, the better education can be.

Brian: Something that often happens with academic research is we all end up in these siloed areas. There might be a really important need here in terms of folks who are doing work on the impact of policy or work on the economy or teacher preparedness—our students are all working separately. We need them to be speaking more of the same language and talking about this. That's because in practice, it seems that any one student's journey is a product of their own initiative, but it's also an interconnected system of factors and forces. So that's what your work is really helping to shed light on.

We're just about out of time today, Laura, but it's been a pleasure. I really appreciate you talking about what's a crucial topic, not just this time of year but really all year round. Thank you so much for sitting down with us today and talking with us about your work.

Laura: Thanks for having me.

Implications for Researchers

- Social science can help us overturn existing assumptions about student success. Evidence suggests certain types of readiness interventions can lead to considerable future student success among groups sometimes incorrectly assumed to be destined for little academic achievement.

- Researchers interested in educational outcomes should consider a variety of factors, including those associated with the student and the student's family, teachers, schools, and the local economy. Incorporating those levels into research can be challenging, so it is often avoided, but future efforts to use a multilevel perspective could improve research on education.

Suggested Reading

Glennie, E. J., Dalton, B. W., & Knapp, L. G. (2015). The influence of precollege access programs on postsecondary enrollment and persistence. *Educational Policy*, *29*(7), 963–983. https://doi.org/10.1177/0895904814531647

Knapp, L., Glennie, E., & Charles, K. (2016). *Leveraging data for student success: Improving education through data-driven decisions*. (RTI Press Publication No. BK-0018–1609). RTI Press. https://doi.org/10.3768/rtipress.2016.bk.0018.1609

Women in Higher Education (2017)

The Measure of Everyday Life *sometimes has featured book authors with a story to tell not only in terms of the main narrative contained in their book, but also in terms of their conceptualization of the book. This episode features the compelling work of Deondra Rose of Duke University as she discusses her book,* Citizens by Degree: Higher Education Policy and the Changing Gender Dynamics of American Citizenship. *The discussion offers a reminder that today's dilemmas are often rooted in past policy decisions and social norms.*

Brian Southwell: Your work offers us so much to talk about. First is really a chance to consider the sweep of United States history. Some listeners will initially think about Title IX, for example, Education Amendments of 1972, as a real turning point in the topic we're talking about today. You've actually argued that we need to look back further to the 1950s and 1960s, right?

Deondra Rose: I do. Title IX was crucial because it helped to open higher educational institutions to women where women had been very restricted in previous decades. I argue in my book that preexisting policies—particularly, the National Defense Education Act of 1958, which I call the NDEA, and the Higher Education Act of 1965, or the HEA—were crucial in providing women with the financial aid necessary to take that next step of moving broadly into educational institutions.

Brian: Great. You refer to that book, and this is something I want to recommend our listeners keep an eye out for here. This new book from Oxford University Press is called *Citizens by Degree*. I'm actually wondering if you can explain to our listeners. It's a provocative title. Where does the title of that book come from?

Deondra: It's meant to evoke thoughts on two different levels. First, I talk about women's roles, or historically their roles as citizens—the fact that women have moved toward first-class citizenship from second-class citizenship. When I think of citizenship, I think of it in terms of full inclusion in society—social inclusion, economic inclusion, and political inclusion in particular.

I'm also really interested in the fact that once women obtain higher education with a college degree there are so many important benefits. We're talking about access to more prestigious jobs, higher levels of income, and very valuable social networks. There is a lot to be gained by that degree.

Brian: Absolutely. As we try to understand then these milestone policies, and we think about legislative history, a fascinating aspect of this is the degree of debate and contestation at different points. How contested were these different moves at the time that they were enacted? How close, for example, do we come to not having some of these policy accomplishments?

Deondra: This is a great question for me. I'm a political historian, and so much of my data comes from the Congressional Record and historical speeches, and to basically work to get a sense of what the politics surrounding a particular policy look like on the ground. For the National Defense Education Act, in particular, the politics was especially contentious, but not because there was disagreement as to whether women should be included as the beneficiaries of the program.

I should mention that it wasn't taken for granted that women should be included. There was a lot of discussion about what some of the lawmakers called a "student loan dowry," I believe it was. This was the idea that women who were going into the marriage market would be hindered by the fact that they had student loans. There was this big question as to whether anyone would want to marry them if they had $5,000 or whatever amount of student loan debt.

There was some skepticism as to whether women would actually take advantage of student loans if they were offered those loans. Much of the

contention in the 1950s was over race and states' rights—the extent to which the federal government should be able to actually give money to students for higher education purposes in a way that might actually give the government the power to tell schools who they needed to admit. That could somehow shift the racial order of things. That was really where a lot of the contention lay over the NDEA. It was really the place where lawmakers had to tread very carefully to get it passed.

Brian: What's fascinating about that, then, is there was a consideration of what was happening in the moment as a precedent for setting the stage for other issues that were related, but not entirely the same. Part of it was jostling, in an effort to anticipate other debates that would come—is that fair to say?

Deondra: Absolutely. It's interesting too, because I'd say this is a parallel thread and a connection between gender policies especially related to higher education and race policies related to higher education. In many cases, the lawmakers, some of whom were women and some of whom were men, who were working to promote gender equality in higher educational access really did take notes from the civil rights efforts. That's a really interesting parallel to see how, for example, the Civil Rights Act helped to serve as a template for Title IX.

It's really interesting that there was an amendment that Adam Clayton Powell, who was a an African American representative from New York, who in the 1950s would work to attach what was known as the Powell Amendment to all social policy provisions—things related to health care or education. Basically, it said in a very forward-thinking way that this policy would be provided without regard to race, sex, color, creed, or nationality.

It was instantly torpedoed. It torpedoed several social policy provisions. For the sponsors of the National Defense Education Act, they actually worked really hard to keep the Powell Amendment off. That was a really interesting area of contention.

Brian: Absolutely. You see all these play out in legislative records. For example, we're always interested to talk here about how researchers and scientists do their work. In your case, the data that you have to work with is often Congressional Record. Talk to us a little bit more about your work as historian; how you do the work that you do?

Deondra: One of the biggest challenges for me in working on this book was the fact that because I was researching particularly the NDEA, a policy that

was created in 1958, many of the lawmakers, interest groups, participants, and activists who were on the front lines have passed away. I worked really hard to try to assemble a body of data that included a variety of perspectives. That meant scouring the Congressional Record. I read reams and reams of witness testimonies from congressional hearings and the *CQ Weekly Report.* That's my favorite resource. I nerd out about that quite a bit.

Brian: *Congressional Quarterly.*

Deondra: Oh, yes. I also managed to do some interviews with, say, staffers. There was one woman, and she was in Alabama. Her name is Dr. Mary Allen Jolley. Dr. Jolley was actually hired as the staffer. She was one of Carl Elliott's staffers for the House. She was hired to staff the committee that actually did the hearings on the NDEA. She was, I believe, 25 years old at the time—a very young woman. I believe she was the only woman who worked in that capacity at the time.

I think she actually later found that she was grossly underpaid compared with her male counterpart at the time. To be able to have the opportunity to interview people like her who were actually there, and can lend their first-hand insights, has been especially valuable for me.

Brian: What a gratifying part of your work to bring that oral history and dimension to it as well. All of this really underscores the idea that what sometimes are seen as maybe more mundane policy debates really do matter. There is a narrow defeat or victory that can have really long-term consequences. Just to help put this in context for listeners now, can you think of other policy decisions, or even ones we've talked about here, that were contested along the way that really do seem to have long-range effects that we ought to be thinking about? As we're thinking about the scorecard in the moment, we're recognizing that, "Gosh, here's another example of how this might last for decades and have the impact."

Deondra: Absolutely. Not to belabor Title IX, but that's my favorite example of this. Title IX started off as this very unprepossessing regulation that was buried in an omnibus education reauthorization bill. It was actually in an effort to reauthorize the Higher Education Act. People were focusing on financial aid. That's what the debate was largely about. Edith Green and her allies in the House basically devised the strategy of stealth politics. The activists came to her, and they said, "Okay, we're ready to go. We're going to lobby. We have buttons. Tell us what you want us to do."

She said, "No, don't do anything. If you lobby, then people will know what's in the bill and then they won't vote for it." It was actually this very strategic, low-key effort that was somewhat buried. It said, "There won't be discrimination on the basis of sex in educational institutions receiving federal funding." That's not to say that it went completely without any debate and discussion. There was an interesting exchange in the Senate that I can talk about in a second. Overall, it was fairly low key, especially given the amount of change that it would create.

Now, the funny part is that in the Senate, there were people like Strom Thurmond, the senator from South Carolina, who were just completely incredulous about this idea that women and men could go to the same higher educational institutions, including the Citadel, which was located in his home state of South Carolina. Then, of course, someone raised the point of, "Well, what does this mean for football? Does that mean that women and men are going to play on the same team?" Then, of course, there was the idea of an all-male Senate. I believe Margaret Chase Smith was in the Senate at that time, but it was overwhelmingly male.

At the time, there was this raucous discussion of, "Well, if women had played on my football team, I'd like to go back to college." It became a joke. It was really interesting to read this discussion of how Title IX really became this joke of an issue that really took on a life of its own. That was probably the biggest challenge for lawmakers who were pushing that through.

Brian: Absolutely. Well, it's just fun to hear you bring all that to life. You can hear appreciation for it, and I think you have some of the gamesmanship that happens here, with the way these policies are made. That's an aspect of the political process that I think sometimes people are a bit cynical about. Do you think people understand legislative processes sometimes in a way that they overstate how much it matters that there's gamesmanship there? Do you find yourself with admiration for these efforts as people try to get policies passed?

Deondra: I really do. To be honest, I don't think that we can overstate the significance of those efforts. Oftentimes what happens on the ground within legislative institutions really reverberates through the politics of a policy over the course of its life. It could be that the politics somehow create or generate interest among certain groups, or it could somehow mobilize the opposition to actually pay attention to a particular policy. I really think politics are where it's at.

Brian: Absolutely. Well, you can see how much individual words matter and the commas and punctuation, as well in those details.

Brian: We're talking about women in higher education and the ways that public policy has affected them and prospects within university settings. Deondra, at the break, we were talking about all of the individual stories that you've gotten a chance to encounter over time. One of them actually involved my undergraduate alma mater, the University of Virginia, not necessarily in an altogether positive light. I'd love for you to recount that for our listeners. I do think it helps to shape some of the individual stories, or it puts a light on some of the individual stories that really have shaped public policy over time.

Deondra: This is one of my favorite stories. In the early 1950s, there was this young woman named Marvela Hern. Marvela Hern was an amazing student. She made straight As. She was the president of Girls State for her state. I believe she was from Indiana. By all accounts, she would be a catch for any undergraduate institution. Her dream school was the University of Virginia. That's all she'd ever wanted to do after high school, was to go to UVA.

Of course, she filled out her application. She sent it off. A few months back, she was devastated when she received her application unopened, with the words scrawled across the top, "Women need not apply." I think her experience really is emblematic of what a lot of women of her generation experienced. They knew that they were competing for a very limited number of seats in higher educational institutions because many used gender quotas, if not outright exclusion of women.

It's interesting, this story, because many years later, Marvela married a man named Birch Bayh. Birch Bayh, actually, in his future, became a US senator from Indiana. He actually was the Senate sponsor of Title IX. It was her story that inspired his interest in women's equal opportunity in higher education.

Brian: What a compelling turn. It certainly does not put my alma mater in the best light at that moment, but it certainly also does really highlight just how important this is—we're all really grateful to her that their family went on to make these efforts. Actually, that opens up a really great line of thinking in terms of the ways that individual history can inform one's research and one's own professional life.

In the first half of our show, we talked all about how higher education policy has resulted in more women attending college. It's a topic of our

discussion today. If you don't mind, I'd actually like to talk about your own experience in academia, as a woman, and how s they've also possibly informed your research. You've actually written about this before, in a very compelling essay that I'd recommend for our listeners in an online publication called *Inside Higher Ed.* In that, you defend so-called "me" studies—studies that are focused somewhat on drawing on one's own individual experience.

You actually argue there that it not only should be acceptable for people to do this, but you actually encourage researchers to draw on their own experiences, because it would be a missed opportunity if we didn't do that. Have you met with criticism from people who think perhaps that you draw too much from who you are and what you study? What's that experience been like for you?

Deondra: It's really interesting. In my personal experience, I've never dealt with direct criticism because I studied things like race and gender or socioeconomic status in my work. My coauthor Phillip Ayoub, who's at Drexel University, and I were really struck when we also read another piece in one of the very popular higher education publications online. That said basically scholars who study identities with which they have personal experience are falling short of the intellectual rigor required of academics.

For this argument, people who do "me studies" will somehow fail to invite the same level of critique and rigor in terms of discourse compared with others who are studying things that are supposedly distant from their own identities. I find that a really troubling notion because I do think that to some extent, many of us study things that we have some identification with, in some respect. I really don't buy it. To be honest, as a woman who does, for example, gender research, I've never felt that I've been spared intellectual challenge.

I think part of it is good that colleagues really do take seriously their role as interlocutors in thinking about what we're doing and helping us to clarify and refine our work and our methodology. We really did want to offer a different perspective on that argument.

Brian: Well, and I'm sure you got feedback. We all do have the peer reviews[11] to show it. In terms of those, there's been plenty of back and forth, right?
    [laughter]

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1   Researchers who work for research organizations, universities, or colleges often participate in a peer-review process in which they send their work to a journal or to a publisher who then sends a copy of their manuscript to colleagues who provide feedback (often anonymously) as to whether the manuscript should be published, rejected, or improved in some way before being considered further.

Deondra: Yes. They're extremely generous in their critiques.

[laughter]

Brian: That's a really positive way to put it. It's euphemistic, I'm sure, but it's helpful. For listeners that haven't been through that process, there's this whole anonymous discussion that often happens with research in which people do open up. There's a whole discourse that happens with this peer-review process. I want to talk then just a bit more about how your own path, a very successful path into academia, may have been inspired by your life experience outside of university settings. Do you see your research agenda now as someone inspired by life before you were a professor or not?

Deondra: Oh, absolutely. I worked in politics before I went into academia. Actually, when I was in high school, I was campaign manager for a state Senate race in Georgia. I was very engaged.

Brian: Wow. That's impressive.

Deondra: Oh, thank you. I loved it. It was an amazing opportunity. It was really what I see as being my birth as a political junkie—as somebody who's really interested in the capacity of people to actually get things done, and to solve problems through public policy. A lot of my work focuses on questions also related to inequality. I've always been fascinated about why some people have a louder voice in the polity and others a quieter one.

Why do some people find it very easy or natural to engage in political activity and others just find doing so to be really alien to who they are? How do we recognize that public policy really has important implications for who has what in society? Who gets what in society? Who's represented? Those are the kinds of things that were definitely informed by my preacademic life.

Brian: Absolutely. It can be so eye-opening to recognize how much personality and opportunities really drive the public sphere, and not in a way that always necessarily reflects contribution from all of our citizens and participants. I can understand how that would animate a whole line of research. Well, looking ahead, I'm really excited to learn about some of the next frontiers for your work beyond the book and beyond the articles that you've worked on today. Where are you headed next with this approach? It's future-oriented. As you're thinking as a historian, where will you turn to the history next, I guess?

Deondra: I have two exciting projects. Well, I think they're exciting on this path.

Brian: I'm sure they are.

  [laughter]

Deondra: The first one is thinking about the political development of historically Black colleges and universities. It's really interesting. If you look at the statistics on African Americans in elected office, it's fascinating to note that 80% of African American judges in the United States have a degree from a Historically Black College or University. I believe it's 60% of African American lawyers in the United States and 40% of African American members of Congress. I think it's fascinating to think about the role that these institutions have played in the redistribution of American political power since the mid-twentieth century.

  What I really want to examine is step one of what role the federal government has played in actually generating these institutions and sustaining them over time—then, two, what role have those institutions played in shaping African Americans' access to and willingness to move into political institutions? The second project is on the Federal TRIO programs. That acronym is TRIO, which sadly doesn't stand for anything other than trio. It's named for the first three programs that were created in the mid-'60s. If you've ever heard of Talent Search or Upward Bound or the McNair Scholars Program, those are TRIO programs.

  It's the set of programs that helps to provide supplemental academic support for students in middle school and high school in hopes of helping to marshal them through a college degree or through high school, into undergraduate education, and through a college degree. It's targeted toward first-generation college students. The programs are touted as wildly successful and yet they're always on the congressional chopping block.

  We actually just saw them in the news a few weeks ago with President Trump's administration. I want to understand what the politics of TRIO have been like since they were created in the mid-'60s, as a really innovative approach to anti-poverty? Why on earth have we sustained them over this amount of time since they've been relatively targeted over the decades?

Brian: Well, that's actually a really fascinating dimension of your work that you're able to look across decades longitudinally to see how things extend. Even those examples that you talked about have impacted my own professional life. I've worked with McNair students. We have these opportunities come up without recognizing the longer history—where that

reflects a choice that was made at some point in time to invest. That's something that I do think is really compelling in terms of the research that you're doing.

Well, speaking of students, we can actually end in terms of talking about students in general. I know that many students at Duke University, for example, are directly inspired by you. You've made a big impact on campus. When students come to you asking for advice regarding their own journeys, what do you tend to emphasize?

Deondra: For me, I'm a researcher. Whenever I work toward a particular goal—a new goal—I first seek out information. Mentors is typically how I do it. I talk to people who've been there and done that. That's typically what I suggest. I often tell my students that success often—I heard this somewhere, and I can't take credit for this quote, but "success is often the result of the meeting of excellence and exposure." To do really, really good work and then to get an opportunity to actually show that work off and to actually put it in action is really, I think, the combination and a winning combination for doing great things.

I have to say my students inspire me. I oftentimes encourage them to just maintain their enthusiasm for public policy and getting things done. I have to say that in the context of everything we're seeing on the political horizon and landscape, they keep me inspired about the future.

Brian: Yes. Just the enthusiasm alone is a tremendous resource. If you haven't stepped foot on a college campus in a while, there's nothing quite as energizing as being around students who do have hope and optimism. I think that they're sometimes mischaracterized or stereotyped as not being hopeful, but often we see that in our classrooms. Great. All right. Well, we are just about out of time, Deondra. This has been a really fascinating discussion. Thank you so much for taking time and sharing some of your stories with us today.

Deondra: Thanks so much for having me here today, Brian. I appreciate it.

Implications for Researchers

- Books on social issues reflect human creativity and inspiration and the choices of an author (or authors) to spotlight a dimension of reality. Without those editorial choices, certain stories would not be told, so it is worthwhile to remember that focusing a book on a topic that has not received much

attention historically—such as the implications of policy on educational opportunities for women—might offer an important service to society.

- Researchers can draw from their own experiences to inform their work. In doing so, it can be helpful also to be aware of the limitations of such an approach. Rather than ignoring one's own lived experience, a researcher can draw on that experience to generate a theory and then assess that experience against additional empirical evidence.

Suggested Reading

Rose, D. (2018). *Citizens by degree: Higher education policy and the changing gender dynamics of American citizenship.* Oxford University Press.

Humility (2017)

Prospects imagined by popular commentators for the roles of artificial intelligence in society have ranged from optimistic to dystopian in the early twenty-first century. Edward Hess of the University of Virginia coauthored a book called Humility Is the New Smart *that navigates that range of forecasts and offers practical advice for students and early career employees on preparation for a variety of different future scenarios. The book emphasizes what we know about human abilities and tendencies in the workforce, so it offered a useful focus for an episode of the show.*

Brian Southwell: You have a new book out with a provocative title; it's *Humility Is the New Smart: Rethinking Human Excellence in the Smart Machine Age.* You make some data-based forecasts about the US job market that might surprise some people. Can you summarize for our listeners where you project us to be and where we're headed?

Edward Hess: We're on the leading edge of a technology tsunami, Brian. That tsunami is several technologies that are going to interact. It's going to fundamentally change how we live and work over the next 10–20 years. The best research has been done by Oxford University, and they predict that over the next 16 or 17 years, there's a high probability that 47% of the jobs in the United States will be automated. Now, that number is 10 times the number of jobs that have been lost over the past two to three decades in manufacturing. This is huge. This is going to be as much or more disruptive than the Industrial Revolution, and we're not ready for it.

Now, there's other research that's been done by McKinsey, the leading global consulting firm in the world, Instead of jobs, they look at job tasks, and their research states that 45% of the job tasks being done today can be automated by existing technology. There are those two sets of research, plus another set of research by the chief economist of the Bank of England, who predicts that over same time frame, 80 million jobs will be lost in the United States. There's research from three highly reputable organizations that are predicting that we're on the leading edge of a major change.

This is not just in the United States—it's global. The predicted job automation in China is 77%, in India it's 69%, and in the European countries and other countries that make up the Organisation for Economic Co-operation and Development, it's 57%. This is a major global problem and a challenge coming. The problem is that humans are only going to be able to do work that the technology can't do well. There's wide consensus as to what that is. The problem is that we humans are not that good at those skills. That's what the book does—it's a practical guide about how to build those skills that are going to help you stay relevant in this new age.

Brian: Great. Well, it certainly is a dramatic picture, Ed, and I want to talk about several different dimensions there. To start, whenever we have important new forecasts, sometimes people will want to challenge those. and some people might want to challenge these contentions. There are several different ways we can explore what your response to that would be. One thing that I want to emphasize is talk a little bit more about the research on which these forecasts are predicated. How is it that people might come up with an estimate like nearly half of jobs being automated?

This is partly helpful for our listeners just to understand how it is that we come to understand the marketplace as it is and how it might be. Helping us explore how these forecasts are made based on data would be really useful.

Edward: Good question. The Oxford forecast was done on in the United States, not in Britain, because the United States labor department has the best database and classification of jobs in the United States, and the underlying skill base required for those jobs. I don't remember the exact number, but let's just say there are approximately 780 different jobs in the United States. They took each of those job classifications and took the skills necessary to do those jobs. They used data of government organizations—these were computer scientists.

They then did a survey of the leading computer scientists around the world and asked them to basically give their opinion as to, number one, what can technology do today? Then, number two, what will be technology be able to do over the next 5, 10, 15, or 20 years? They basically then made their predictions match to match the skills underlying each job to the high probability that technology would be able to do those skills within the time frame of the study.

Now, what McKinsey did was something very similar. McKinsey did not predict the future. McKinsey looked at job tasks, the same type of concept, and looked at what technology can do today. In McKinsey's research, it said that 45% of the job tasks being done today can be automated. Let's assume we're out working in a retail job, a manufacturing job, or some type of job. .

Then, McKinsey's research would say there's a high likelihood that 45% of what you are doing can be automated, and 45% of what I'm doing can be automated. McKinsey's research then raises the question of what are you going to do with the 45% of your time? What am I going to do with the 45% of my time? Will the employer keep both of us around, or will the employer in effect say, "I don't need both of you, because one of you can do almost everything the other person is doing, plus what you're doing, the technology is going to do"? That's the issue that the McKinsey report raises.

Brian: It's extremely helpful. It helps us to see that there may be a distinction here between jobs as we tend to think about them, and also the tasks that comprise them. Maybe there's some possibility for hope too, as we might talk about. Maybe it's the case that people can take on different tasks, or maybe some of those tasks will be valued differently or weighted to a greater extent in the future. I want to get into all of that as we look for pathways forward, and I know that's a lot of what you've outlined in the book as well.

I want to take a step back just for a moment, because as a faculty member, and as somebody who's been very involved in the world of business for your whole career, you're a busy person. Why take the time to put together a book like this? I really get a sense of urgency from you in terms of what you're writing about. Why is it that you thought it was important to put this together now?

Edward: I'm very concerned about future of our country, the future of our democracy, and the changes that are coming. There's a wide consensus that huge change is coming. The differences in opinions come down to how fast it will come. The second big difference is what I call will history itself—will this

time be different? There is a huge consensus—from a Warren Buffett to a Bill Gates, to an Elon Musk, and to the researchers globally—that the technology tsunami is real and that we are on the leading edge of really seven to eight major changes that are going to converge together.

There's not much doubt, if this is going to occur, where the differences of opinion come into play and how fast, and that's now narrowing. Then, we'll see whether it will be like the Industrial Revolution, and whether enough new jobs will be created to basically let all the displaced people have work. That's where the big difference is.

Why did I write it? In my work, it's clear that conversations are going on in Europe about this, and actions are being taken. Canada has a major study going to basically show what is Canada going to look like in 10–15 years. China is working on things, along with Australia and New Zealand. We're not having any serious conversations at the highest levels in our country, about what we are doing to prepare for this technology—let's just say, advancing technology and adaptation, that it's going to take for us as a society. We have a culture that's the most individualistic, social Darwinist, survival-of-the-fittest culture of any of the really developed big economies in the world.

We're going to have, in my opinion, the biggest challenge to adapting to what's coming because of that culture. We're not a culture of, if you will, the common good or otherness, or a collaborative type of environment, and that's going to be required to get through what we're going to have to get through. I wrote it because I have real concerns. I wrote it because I have two young granddaughters, and I'm concerned about the world that they're going to walk into at age 18 or 21. I'm concerned that we're not having high-level conversations, planning for this, and figuring out how we as a diverse society are going to basically adapt.

Brian: I appreciate you outlining all of that. There's this notion of the need for greater cooperation, and we'll talk about that in the second half of our discussion. Just before we go to break though, Ed, one additional question just to help listeners get their heads around the scope of what you're suggesting: You talked a little bit about this earlier, but I'm just curious, in terms of this projection of job loss, how does that compare, say, with the last recession in the United States? Just to give us a sense of comparison.

Edward: I don't have the last recession job numbers. I do know that the number of manufacturing jobs that have been lost over the last 20–30 years is

about seven million. We're talking more than 10 times that. In the era of the Great Depression, the highest unemployment rate that occurred ranged between 25% and 29%. That was a very difficult time for our country. The predictions are that we're looking at a number around 50%. This could be twice as traumatic as the Great Depression on human beings. What that means is, how do people live? How do they have food? How do they pay for their shelter? What happens to human dignity? How do we basically, as a country, solve that problem?

As you know, because you're a learned person, it took some major governmental and cultural shifts to create the New Deal. For us, it was aided by a world war on unemployment to come out of the Great Depression. We came out of it and went into the era of the Great Prosperity, and that lasted to about the mid-'70s. The issue for us is that this has a huge potential, and we're not even having conversations about an impact. The Secretary of Treasury, earlier this year, in discussing artificial intelligence, said it's 50–100 years away. No leading scientist agrees with that.

Brian: Ed, in the first part of our show, you outlined a really stark vision for what seems to be coming in the face of automation of particular job tasks. Listeners hearing all that might be concerned about what that means for any one person, in terms of your future job prospects.

You've emphasized the need for humility in the face of this new change. I know you mean that in several different ways. Now, what exactly did you intend by emphasizing that in the title of the book? Maybe talk to our listeners a little bit about your call for humility more generally.

Edward: What I mean by humility is not the dictionary definition. I do not mean submissiveness, meekness, or thinking lowly of oneself. I use humility, and we use humility in the book, from the psychological construct, or having an accurate view of one's abilities and achievements—not overestimating, not underestimating. It's being able to acknowledge one's mistakes and to be good at knowing what you don't know. It's being open to new ideas and contradictory information that allows you, if you will, to be a good, critical thinker—that allows you to come to better judgments with other people.

It's keeping one's abilities and accomplishments into perspective and tamping down what I call the big ego. Why is humility so important? Humility is important because of the skills that humans are going to be able to do that technology can't do. All involve higher-order thinking,

problem-solving, or higher-order emotional engagement with other people. If you think about it, if you're full of yourself and an arrogant person, are you going to be open-minded? No.

If you're not open-minded, you're not going to be a good thinker. If you're not open-minded, you're not going to be a good listener. If you're not a good listener, you're not going to be able to collaborate and work with other people. Most work is going to be done in teams going forward. Humility is the gateway to better thinking, better listening, and better engaging and collaborating with other people. It's the gateway. You can't empathize with another person if you're full of yourself. If you basically can't put yourself in their shoes, because your shoes are so big, you can't get out of your shoes.

It's this whole concept of quieting one's ego, because we know from neuroscience and research over the past 30 years, that there's an inner world that we each have, and there's an outer world. We think our interpretation of the outer world, our mental models, are reality. Well, they're not. They're just our stories that we have formed to make sense of the world. People will have different mental models—they will see the same thing or read the same thing and have completely different mental models.

Being a good thinker, collaborator, or team player, understanding your customer, being able to adapt to change—you need those abilities, if you will, to be willing to admit that the magnitude of what I don't know is far greater than the magnitude of what I do know. You have to accept the human science of how we think and how we learn. We basically are confirmation-seeking and emotionally defensive thinkers. We also are emotionally driven to be liked by others and to have our ego affirmed.

We seek confirmation and affirmation, and those get in the way of us being high-level thinkers and collaborators. That's the science. Humility is built upon that science. You've got to quiet yourself to be able to be more accurate about the reality going on outside of yourself.

Brian: It's a very, very keen insight, Ed. I really appreciate several different aspects of that. Part of it is even just the casting of humility, which you may not necessarily think about in this way normally. Really, you're talking about almost as a skill on its own—as a tool for approach—and you're putting a practical edge on it that. I think we can often think about it just purely in terms of ethics and philosophy. There are lots of good reasons to maintain humility, but you are actually suggesting that there is a practical utility to it as we all move forward, right?

Edward: Yes. In fact, you could look at it and say it may be the number one job skill going forward, because it enables the other skills.

Brian: That's extremely helpful. I want to talk about a couple of additional dimensions of your argument and the forecast that you see here, because it seems to be the case that perhaps we certainly are seeing the likelihood for massive change across the board, but it also seems that maybe not all job sectors are going to be equally affected. Are there certain jobs that are going to more likely continue to be occupied by humans? Are there differences that you've noted in terms of different sectors being affected by some of these changes?

Edward: Yes. Let's start with the ones that are going to be, if you will, the most impacted—retail jobs, fast food restaurant jobs, manual laborers, construction workers, long haul truck drivers, accountants, clerks, paralegals, telemarketers, administrators, and security guards. Even professionals like accountants, lawyers, financial consultants, management consultants, and even some in medicine and architecture are going to be impacted. The safest jobs, if you will, for the near future—I use the term "near future" intentionally, because technology is going to continue to advance—are jobs that require high-level problem- solving where there's not a lot of data, innovative thinking, creativity, or imagination, and jobs that involve emotions. The delivery and receipt of service to human beings involves emotions and dealing with emotions. Elementary school teachers are very safe, and also social workers, psychologists, and home health-care workers, because those are examples of that. Then, for the trade skills, it's trade jobs that require identifying the problem and then iterating solutions in lots of physical dexterity. It'll be a while before smart robots will be able to be as dexterous as human beings.

If you're thinking about how to upgrade skills and start retraining, you've got to go toward more complexity of solving problems, or complexity of thinking. If you're in a service job, service job people should move to services that require emotional intelligence. It's understanding the customer's emotions and relating to them emotionally, then adapting in conversations in the delivery of either the service or the product—to basically try to do what the technology is not going to be able to do well in the near future.

Brian: It's fascinating. It's a different way of thinking about different sectors to hear you, for example, talk about the degree to which elementary school

teachers have actually something of a bright forecast. In the light of different concerns over budget cuts and tensions there, that might be interesting for some people to hear, but it makes a lot of sense based on exactly what you're pointing out, in terms of the nature of some of these jobs.

Ed, in the last few minutes, I want to talk about just two additional ideas. A lot of what you outline seems to suggest the possibility for real tensions between social groups over time. Is that a possibility that you anticipate? I don't want to venture too far into a political discussion, if that's beyond where you want to go, but it does seem like that possibility's there, for future attention, right?

Edward: It is a real possibility, because if we as a country don't have answers to how people are going to find meaning and human dignity in a world where the future of work is in doubt, we end up with a small group of people working full-time jobs, a smaller group of people maybe doing part-time freelance work, and then a lot of people who do not have traditional jobs and are going to basically have to revert to our earlier era. If they band together in communities, if you will, and work together to find meaning and collaborate—yes, there is a high risk of social stress and a high risk of divisiveness.

This is not the first time this will have happened in history. What you would end up having is even much higher income and wealth inequality than what we have today. Then you have the chance of upward social mobility, which is a myth for many people in our country today, but what's coming is going to make it even more, if you will, difficult or unrealistic. You have almost a caste system, or in effect, you have a system with very well-off people, and most of our populace is not. You can go back 2,000 years in history, and history says that is not sustainable and there will be social strife.

Brian: Right. In many ways then, it's possible even to see this in the last decade or two, in the United States and elsewhere, as really a precursor. In many ways, some of the political trends that have been confusing maybe make more sense if you see them as the early-stage reaction to some of these changes. That's also a very keen insight. We have just about a minute or so left, Ed. I just want to end on a note, because there's a lot of reason for concern in your forecast, but I don't get the sense that you actually are entirely pessimistic about where we're headed.

Do you see the possibilities for positive change that if enacted could actually help us? Let's leave on that note. Is there room for optimism here, after having written this book?

Edward: There is room for optimism if we as a country start having conversations and commit ourselves to basically deciding what type of society we want to be in this new era. Yes, we have the potential to continue to be a global leader. Unfortunately, if you look at our history, we're not really good at proactively solving problems in this country. We generally solve problems after they have occurred, and we have social strife. This is so big, and we need to get ahead of the curve.

This country—when it puts its mind to it with the best and the brightest, and the people care about each other, and the country comes together—can come to a solution that basically creates, if you will, the new society—the new rules of the game. We've done that in the past twice. We've done that when we rebounded from the Gilded Age and the robber barons under Teddy Roosevelt. We did it under Franklin D. Roosevelt with the New Deal after the Great Depression. We have done it economically twice, but what needs to happen this time is we need to do it proactively, not reactively.

Brian: Great. You've certainly given us a lot to think about, Ed. I appreciate you outlining that, talking about why you put together *Humility is the New Smart*, the new book that outlines a lot of these ideas. We're just about out of time, but I want to thank you for joining us today, Ed. Thank you for calling in.

Edward: Thank you for having me, Brian, and thank you for a good conversation.

Implications for Researchers

- Social science theorists have begun to consider the long-range effects that the development of artificial intelligence technologies might have. Several considerations should inform that thinking. Artificial intelligence as a phenomenon is not monolithic and entails a range of technologies. Moreover, artificial intelligence is unlikely to only have one or two specific effects. Artificial intelligence and workplace automation also may not have the effects that have been anticipated in popular culture. Studying the effects of artificial intelligence will require integration of thinking across numerous domains.

- Studying current human circumstances as they unfold can be challenging, as researchers themselves are human beings trying to observe the world in which they live. It can be useful for researchers to "quiet" themselves as they attempt to make sense of that world and before designing research protocols to capture data.

Suggested Reading

Hess, E. D., & Ludwig, K. (2020). *Humility is the new smart: Rethinking human excellence in the smart machine age.* Berrett-Koehler Publishers.

Reinventing Higher Education (2017)

Like some other authors in this book, Cathy Davidson of The Graduate Center and University Center of the City University of New York has questions about our future. In her case, she has wondered what roles universities and colleges should play in shaping tomorrow's workforce and society. On this episode, taped during an autumn week in North Carolina with clear skies and students on campuses, Dr. Davidson talks about her book, The New Education: How to Revolutionize the University to Prepare Students for a World in Flux. *In it, she reflects on her own career working at universities as well the history of universities in America.*

Brian Southwell: If you walk around campus around this time, you can feel the mix of emotions in the air, as students find new freedoms and challenges. You can hear it in the voices of students as they talk about college and their aspirations, which I heard recently on the campuses of North Carolina Central University and over at Duke University.

Mikayla Barnes: My name is Mikayla Barnes. I'm a senior, and in high school, I guess I just thought college—I don't really know what I thought college would be. I thought it would be like TV, like Hillman on *A Different World*. It hasn't been that glamorous, but it has been fun. It's been one of the best experiences of my life, and it's helped me grow as a woman. I'm actually sad to graduate, but I'm happy at the same time to get out. It's bittersweet, too, because I like this experience.

Kelsey Rowell: I'm Kelsey Rowell, I'm a senior at Duke, and when I was applying for colleges, I actually specifically looked at schools that I saw had established resources for doing interdisciplinary majors or programs. I have this fantasy of maybe one day there'll be a college where instead of students picking a major, students will pick a question that they have to answer. You design your whole program around answering that intellectual question and working at that intersection. I think that that's really the way a lot of traditional jobs and disciplines are being phased out of the workforce. So, we're going to need more and more students to be looking at intersections and collaboration across disciplines instead of focusing on one discipline.

Courtney Price: Hi, my name is Courtney Price. Originally, what I planned on doing was going into the army. That didn't work out so well, so I went to Wake Tech first just to get a feel for it and get all my basic classes out of the way. Then, I decided to come here because I knew that Central has the best school of business, and that was one of the things I wanted to do.

Brian: Although many students are excited often, they also spend a lot of time trying to figure out what will come next for them. The path isn't the same for everyone. Admissions counselor like Stephanie Gant testify to this.

Stephanie Gant: All students are not as well educated or well versed as some other students, so I think it's very important to meet students where they are and answer their questions.

Brian: What if it turns out that we're not doing our best to serve today's students? What if our very model of higher education could be improved? Cathy Davidson has been a part of university life for most of her career. She believes that today's students aren't getting all they could out of the arrangement. In fact, she's written quite starkly that she thinks today's students have "been given a raw deal."

Coming from a long-time faculty member and a university official, this is a dramatic pronouncement. It's well-grounded, though, in her historical assessment at the contemporary university. Cathy writes about all this in her new book called *The New Education: How to Revolutionize the University to Prepare Students for a World in Flux*.

You might think that universities are deeply rooted in thousands of years of history. In some ways, though, the contemporary university, especially the university in the US, really reflects a model that's only about a century old.

Cathy Davidson: The biggest cliché about higher education is it hasn't changed in 2,000 years since Socrates paraded about the Academy. That's actually completely false. In the nineteenth century, education went through enormous changes. That's because the world was going through changes because of industrialization and urbanization, and the development of new professions and the education system at the time didn't really address what these new professions were. How do you train people for a professional managerial class?

In America, basically between about 1860 and 1925, everything changed about the old Puritan college that was designed to train ministers. Instead, it became graduate school, professional school grades, credit hours, distribution

requirements, and divisions of the vast world of knowledge into science versus the humanities, or versus social science, with the arts not even considered something you dealt with in higher education. All of that was schematized and built, and an infrastructure was created for it, basically from about 1860, but it was fully in place by 1925, and that's the university we have today.

Brian: This model that we've had in place for about a century in a lot of ways has important implications for how universities function and how students are served. Cathy's thought a lot about this.

Cathy: Change has been incremental, and there's a reason for that, too. The same people, led by Charles Eliot—the 40-year long president of Harvard who worked with every major industrialist at the time, plus every major educator at the time—also created this system of accreditation and rankings, so that the system he was building at Harvard became the epitome. Everybody else was judged by that, but it makes change very, very difficult. You're always seeing yourself relative to the standard that's been pretty fixed since 1925.

On the institutional level, the reason there was such monumental change between 1860 and 1925 is the whole world had changed. Our world has also changed. April 22, 1993 is when scientists came out and said to the world, "You have computers, but there's a way your computers can talk to each other, and it's called the internet. Here's the Mosaic 1.0 browser, and we, scientists, want this to be a public good."

Literally at that moment, there were 20 websites in the world. By the end of 1993, there were 10,000 websites. Internet use had gone up 2,000% between April and the beginning of the new year. We spend more time now with many studies online than offline. Everything we do as humans has been changed by this new way that labor, ideas, social relations, religion, and politicians run the world. We're as controlled by hackers now as we are by what social media we're using in our everyday lives. Education hasn't begun to change for this new postindustrial, post-professional, intermixed, interactive world where anyone who has a thought can communicate that to anyone else who has an internet connection.

We haven't made changes the way Eliot did when he saw that the world had been changed by industrialization and the assembly line. Our structure is still designed for the Model T, not for the Google driverless car.

Brian: An important part of Cathy's message is that not all institutions of higher education and higher learning are the same. We have to be careful not to take a one-size-fits-all approach.

Cathy: I have to lay this at Charles Eliot's door, too, because in the Industrial Age, there were also three major kinds of institutions. One was the land-grant universities, which were founded during the Civil War. Funds from the homesteaders moving out West were used to build a national system of public universities. They were largely agricultural, although you were also learning philosophy at those universities. Most states have them. Community colleges also get their big start really in the early twentieth century, largely to train teachers for the new requirement that students stay in high schools until they're in their middle teens—14 to 16, depending on the state.

Charles Eliot was in charge of helping to draft ideas for junior colleges and for those land-grant universities—the junior college, which we now call community college, the land-grant public universities, his elite schools, and the women's colleges; he also helped develop Radcliffe College at Harvard for a women's university. They're all very different. They still implicitly are ranked by the same hierarchies. That makes no sense at all. It's like an under-resourced community college, whose job is—as Gail Mellow, the president of LaGuardia Community College, likes to say—to take the top 100%; it's an incredibly challenging job. How do you take somebody who didn't graduate from high school and get them to a point where they're functional adults who can lead a productive middle-class life? How do you take somebody who comes out of the prison system? That's incredibly challenging. You're going to judge that school by Harvard?

Brian: Now, despite Cathy's caution about changes that history can bring, she also believes in our ability to adapt and endure.

Cathy: The 1930s, in the midst of Naziism, some of the greatest theoretical, religious, spiritual, inspiring work came out. I think that's because people have to find a way to endure and to feel strength and a way forward in the worst times. Sometimes it's the best times. Again, society can be a velvet tunnel too. Sometimes, it's when you feel, "oh, we're beyond racism, we're beyond tyranny, it could not happen here," that you're most vulnerable.

For children, it's harder—how you explain to children that life can be really, really hard and that's real, and life can be really good, even when it's hard. That's a very difficult one, and not every child is able to cope with that.

Brian: Putting together a lengthy book, reviewing the history of higher education, and laying out remedies is a massive undertaking. I was interested to know why Cathy was so inspired to do this in the first place.

Cathy: When I first became vice provost for interdisciplinary studies at Duke University, it was the first one ever at Duke or anywhere, so it was great. I got to invent everything, but one of the first things they asked me to do was help create a new center for cognitive neuroscience. I also have a brother, who since has passed away, who had been brain damaged since he was in his 30s. This was an area that was my job and my passion. I not only interviewed people, but I also read their work with a real depth and fascination and interest and concern that I might not have otherwise brought to it.

I'm also dyslexic. I'm very, very, very dyslexic. That's something that wasn't diagnosed when I was a kid. People just thought I was a rebel because there were certain things I could do easily. Math was my thing. I could do math. Like breathing, it just came to me naturally, but I always got the wrong answer. Everybody who worked with me could tell that I could think in very abstract terms. I now work on the board of Mozilla, and half of my programmers I work with, the inventors of the internet, have that particular inability to come up with a right answer, but an ability to think in those abstract terms. Algebra was a better language for me in some ways than reading, which was difficult for me as a child.

I had all these reasons to be interested in neuroscience, and then I realized how little we know about learning in the profession of education, where we're teaching. We know a lot about testing. We know a lot about assessment. If we're teaching college, we know how to do our research and how to police our students to do research the way we do research. We call it peer review, but we don't actually know a lot about how people actually learn. It was fascinating for me, to be able to make that connection between this new program we were starting and reading this work by the world's most eminent neuroscientists and think, "I can learn how to teach better from this."

What we know is that what we really learn is very scant. If I see a movie and say, "that was a great movie, I remember everything," we maybe remember 1% of what we saw—maybe 8% if you're judging in the most general terms. I always say we're haunted by the 8% because going all the way back to John Dewey, there have been tests about how much you actually retain from a class. Even a class you love, with the best teacher ever, it's about 8%.

If I take Introduction to Psychology, and six months later, I take the final exam in Introduction to Psychology, I'll do about 8% better than the person who took the final exam and didn't take the class. It's not much, but what we do learn is how to learn.

All of the work in neuroscience, and all of the things about cognitive and neural repatterning, are all about how you practice certain things, how you find what you're interested in, and how you actually develop that thread throughout your learning. Even when you're taking different classes, you individually—and we have very poor ways of tracking this—are often making connections. One thing we do very badly in higher education is help students understand those connections.

Often, it's in that thread that somebody actually has a life path—something that will help them when their job disappears, as all of our jobs are in this world right now. Half of college teaching is done by adjunct professors. Every profession is changing radically. I think we have to think about that as a society, or we're going to be in big trouble. Even in the short term, how do you change? How do you know how to learn, so that when the content of your job and your profession disappears, you have the capacity to learn something else, and to say, "Wait, I can do that—I can learn, and I can take what I know about my own learning style and my own passions and learn something else that will be productive for my future"?

Brian: It's not only clear in talking with Cathy that her passion for this topic reflects abstract thinking about the literature on higher education, but it's also clear that some of this derives from her own experiences—the experiences she's had as a professional working in universities, but also her experiences as a student.

Cathy: I often say that the reason I'm a good teacher now, and the reason that I write fairly convincingly about education, is because I was a terrible student. I was kicked out of high school. Actually, I was kicked out of kindergarten, I was kicked out of sixth grade, and I was kicked out of high school four times. The last time, I should have been expelled, except I happened to win a national writing contest and a national chemistry contest. My father still, to this day, at age 91, will tell the story that this national award came in the mail, and he was like, "My daughter, who I'm having to drive to this special school because she was expelled from her own school, won a national contest?" He couldn't believe it.

I also started at an unnamed Ivy League school on a full chemistry scholarship, and I was there for a summer. It was a very special program where you went from a high school degree to a PhD in six years. I was there for the summer and thought, "Not for me."

I dropped out, and I already had a minor career as a backup singer and was singing professionally. I went back to that and was singing in nightclubs as well as in Washington Square Park with money going into my guitar case. I had a grandmother, and my grandmother was like, "My daughter's going to college." This woman who could barely speak English called schools in the Chicago area and found one where a student had just happened to turn down a scholarship. She talked to this admissions officer who knew that we were in a strange era in American culture, and there'd be a lot of smart kids who just were by the wayside. It was during the Vietnam War, and it was happening with a lot of people.

Suddenly, I had a scholarship to this tiny college, Elmhurst College, a Protestant college. I don't think there's a Protestant anywhere in my family. It's a Catholic and Jewish family, and suddenly I'm at this Protestant college. I realized, "With college, there aren't requirements in the same way — you can take anything." I ended up majoring in philosophy of mathematics. I thought I was going to go into robotics and artificial intelligence. I found out no women went into robotics at all—it was a totally male field. I knew I had to have a job, so I switched into English. I'm not quite sure why, but I also took art history and so many different things. It was like a playground. It was so exciting to me. I don't think I was a conventional student.

I was also offered scholarships to graduate school. One was at Johns Hopkins, and one was at SUNY Binghamton. SUNY Binghamton paid my whole way, so I said I'd go to Binghamton. I wasn't even in the world of those Eliot hierarchies. It didn't occur to me that one was a very famous and perhaps the most prestigious research university in America on the graduate level, and the other was a brand-new graduate program. I just knew they would pay my way. I lucked out because I came up with an incredibly original idea my first year in graduate school. My professor pulled me aside—that is, my lead professor, Bill Stein—and said, "This is a 10-year project, but it's really important. Write your dissertation on something easier and make this your next book." Actually, the book I wrote was on how the world was changed by steam-powered presses and the invention of mass printing. With the last Information Age, all was stuff I came up with my first semester of

graduate school, because it was history, it was sociology, and it was history of technology. It was literature, but it didn't fit anywhere. I think it was because I was an oddball. I was lucky enough to have had a professor who didn't care about the rankings, who was at also a school that didn't have a huge reputation, who said, "No one's had that idea before. You need to read all these British cultural studies people." No one in American literature was reading work by those folks and pursued this, but this was a 10-year project—talk about an amazing gift somebody gave me.

My dissertation was actually on a nineteenth-century writer named Ambrose Bierce, whose short stories fit in one volume. I would read a story, write a chapter, read a story, write a chapter. I wrote a dissertation, I don't know if I should say this, in six weeks—so, not a great dissertation. My first books are all on Ambrose Bierce, and I was, at the same time, writing this huge study of the ways that people were shocked by mass printing because no longer did a minister control what you read. It's the same process of industrialization. What do we do with democracy, if people can read anything? How do we control people if they can read anything? I was very interested in the relationship between technology, fear of technology, education, and how we get information.

When the internet was invented, I thought, "Hey, I've got this. This is what I did for the last Information Age." It's the same questions. People are worried about the same things and asking the same questions about the internet that they asked about the novel, which was the most popular form of information dissemination to everybody.

Brian: In her book, Cathy outlines several ideas about how we might change universities, colleges, and institutions for the future. One of the ideas, though, is quite elegant, and it has to do simply with how we work with our students.

Cathy: I like to start with the simplest thing, which is to have faculty actually change how they run their classrooms. I think you don't have full substantive change until you feel like you can be a change-maker. I use a lot of inventory methods that are just simple methods to have every student speak in every class, and this is by asking the students—sometimes I hand out index cards and pencils and have the students write down something quickly and then read it to their classmates. It's just so every student can have an idea themselves and express it in a classroom. I think that both takes away the professor as the center of all knowledge and allows students to interact with

each other. It gives every student a voice. We have studies that show 20% of students graduate from college saying unless they were called on, they never once spoke in a class. That, to me, is criminal. One thing you need to learn how to do in college, and it might be the most important thing, is have your own voice—figure out what that voice is and how you can articulate yourself in the world.

I ended the book with 10 tips that any professor can do not tomorrow, but today, in their classrooms—to structure equality in their classrooms, and to make their classrooms participatory, engaged activists.

It's called radical pedagogy; I learned it from a second-grade teacher. It's not radical—it's about everybody being able to contribute. It's what you learn in kindergarten about how to play well with others.

I also end with 10 tips that any student today can use to turn around their university—it can be the dorkiest university in the world, and it's about how they can turn it into something meaningful that will help them for the rest of their lives. It means taking active control of their own lives.

I rarely get asked about what I can do today. Most people say, "How can my institution change? How can my discipline change?" Why I do that at the end is because it's the same method of inventory method. I want people to know that if you're serious about this, if you like this book, here are 10 things you can start doing yourself tomorrow. If you're a teacher, you can do it in your classroom. If you're a student, you can find things around your university that will help you tomorrow, and you can be conscious of that and do that. I give 10 different things you can do. It's interesting to me—rarely do people go to the "I," and I think that's because we've inherited a world where you go to the authority. Even when it's there, and even when I say, "This is what you can do," rarely do I get that question, "What can I do?"

Brian: Ultimately, Cathy's critique of higher education is a critique, and it'd be easy to assume that she has a negative outlook on the world. An important aspect of Cathy's voice, though, is the drumbeat of optimism that's clear, if you sit and listen to her.

Cathy: My great inspiration intellectually is the famous now-deceased Jamaican-British cultural studies hero, Stuart Hall. His hero was Gramsci. Gramsci was imprisoned by the fascists, and while in prison, he wrote some of his greatest work. When asked how he could do that, he said he had great pessimism of the intellect, but optimism of the will. Stuart Hall would always

say that he also had pessimism of the intellect but optimism of the will. What that means is you can't look at our world—I think now as much as any time—without being aware of all the terrible things that are happening. As we're speaking, you have fires, earthquakes, floods, catastrophes, a resurgence of white supremacy, and people lying. The people who should be our role models are lying every day and using mass media to lie every day. Improvable documentable lies. I don't know how you have a child anymore now and say, "Look up to our leaders."

"I shall not tell a lie," said George Washington, in a fable of American democracy. Now, every day, we have a body count of how many lies we're being told. That's pretty shocking. You have to be pessimistic about that.

At the same time, everywhere I look, I see people who are surviving against those odds. Now that I teach at City University of New York, where 80% of our students have incomes of less than $30,000 a year in New York, I have to believe in optimism of the will. Everywhere around me are people whose will is allowing them to thrive in ways that just make me feel so humble. Against obstacles that are almost unimaginable, people are thriving, doing good things, and helping one another—and helping themselves as well. You have to be optimistic.

If that's the paradigm for education, we're doing well—in other words, if we can tell our students, to help them understand that, no, realistically, the world is not perfect. Even if you live in the velvet tunnel of the cushiest, fanciest, wealthiest, most affluent institution, there's a world out there that's in trouble, and you are a part of that world. You're not separate from that world. The velvet tunnel is a myth. This is your world too. It will impact you, whether it's the hurricane that suddenly takes away everything you own, or a hacker who cleans out your bank account, or a nuclear war. There are many ways we're all vulnerable. You have to be pessimistic and realistic. It's part of being a moral human being.

At the same time, you have to appreciate your own will to do things against odds, and even more, against people who have much greater odds than you to survive and thrive—we're all part of that community together.

Brian: That's our show for this week. I want to thank Cathy Davidson for sitting down with us during her visit from New York. She's been a tremendous contributor to higher education and society, and it was an honor to have her on the show.

Implications for Researchers

- Researchers studying higher education institutions should be careful to avoid taking the shape and tendencies of those institutions for granted. Educational institutions have not always looked exactly the same in the United States or other countries in the world, and they do not need to remain the same in the future necessarily. By including a historical lens in consideration of future policy discussion, researchers and commentators can avoid myopia. Recognizing the changes and similarities that characterize educational institutions over time can sensitize us to possibilities for changes, and perhaps even institutional improvements, in the future.

Suggested Reading

Davidson, C. (2017). *The new education: How to revolutionize the university to prepare students for a world in flux.* Basic Books.

Media and Society

Satire, Humor, and Politics (2016)

You might be tempted to dismiss humor as a candidate for serious social science research but a dimension of humor, that involving satire and irony, has garnered attention from scholars in part because of uncertainty as to how audiences are affected by it. News headlines have noted the prevalence of misinformation as a potential force affecting public opinion. Dannagal Young of the University of Delaware shares her research on satire in this episode. The discussion also reveals what an improvisational comedienne can contribute to social science research.

Brian Southwell: I'd like to start our discussion with a challenge to the whole premise that our episode today is even appropriate. A few years ago, you wrote what I thought was a quite compelling piece for the Columbia Journalism Review, in which you recounted your own 1990s cynicism about politics and news coverage of politics growing up in New Hampshire.

Your argument, if you'll allow me to paraphrase, is that several different factors—newsroom constraints and other factors—have all led us to let the fun drain out of the political arena. One of the solutions, and one that's partly embodied by the rise of phenomena today like *The Daily Show with Jon Stewart*, was to let the fun back in.

From your perspective, satire and entertaining political content provide "a state of play where the audience can engage with public officials, political issues, or events and not feel judged or inadequate in their ability to understand what's going on." This line of thinking has been widely cited and offers important insight, but at the same time, we also live in a world of dire situations and rising threats. What do you say, Danna, to the critic who says, "Frankly, this isn't fun and games, Dr. Young, and your emphasis on the fun is actually a damaging distraction"?

Dannagal Young: Well, I'd say that person is probably not that fun, first of all [laughter].

Dannagal: No, but second, I would say the argument that I'm making is not that we need to make politics fun and games. It is about allowing emotions and play to come back in and allowing people to connect to politics in a way that perhaps is more intuitive and allows them to feel slightly more empowered.

The real issue for me is that even when issues are dire, even when news is scary, and even when policy topics are complex and burdensome, that is when we need to make sure that the most citizens are still paying attention and feeling like they are a part of the process. The danger in my mind is the notion that citizens will feel so overwhelmed by the complexity of the political space. They'll feel so overwhelmed by the terminology and the infighting. With the kind of vernacular that typical pundits might use on news programs, the citizens might feel that they are not a part of that. They don't speak that language because that's not how they relate to the world.

What we see when we look at people who consume political humor programming, is we see this profound level of political efficacy, which is a fancy term for two things. One, there's internal efficacy—how confident am I in my own ability to understand politics and participate in my political world and external political efficacy, which is how confident am I that my voice is going to be heard, and that people in politics are going to respond to me.

What we see is that for people who consume political humor and political satire, they have higher levels of efficacy. It's not that politics needs to be fun and games—it's that we need to make sure that we allow the framing of political discourse in ways that connect to regular people's lives.

Brian: That's great. You offer a really very compelling case for how and why we ought to consider humor as a strategy for public engagement. I also want to talk about satire specifically. I think there may be a fine line here in terms of the ethics of satire. From a theoretical perspective, wouldn't satire essentially act as misinformation for audiences?

Dannagal: This is something that, as you know, I have very strong opinions about. I'll just say, first, let's be clear what we're talking about, because satire as a kind of text should be read in the moment. Satire as a text, political satire, is something that is done in a state of play, and is designed to elicit laughter, but conveys a kind of judgment—an implicit judgment either against political officials or political institutions or political policies or social practices, more broadly defined. Satire as a kind of text has a very particular delineation. The purpose of a satirical text is to offer some criticism or judgment.

Now, one of the most useful vehicles for satire is often irony. Irony is what gets us into trouble; irony is something that is cognitively complex because generally speaking, it's the stating of the opposite of what you mean.

Brian: Right.

Dannagal: The classic example of irony is the character that Stephen Colbert played on *The Colbert Report*, where he is playing the role of a conservative pundit, but we know what is underlying is that he actually is advancing a liberal perspective. Those are some mental gymnastics you have to do to unpack that—understand his intended needs.

Taking that definition of satire and irony, and taking that to your question about misinformation, my concern about this is that if someone happens to be on the internet and they come across a satirical story—like something offered by the site The Onion—and it is an ironic story that is saying the opposite of what is true, and the reader reads it as true, does that constitute misinformation?

In my judgment, the answer is no if that piece of satire is actually designed to be read ironically, to issue some judgment or aggression on the part of the audience so that they start to make these political or social critiques. If the audience reads it incorrectly and they read it as a literal expression, it's no longer serving as satire. You get what I'm saying?

Brian: Yes.

Dannagal: They're mutually exclusive.

Brian: Yes. You're really, then, going to put a lot of importance on the intention of the text, and also to suggest that we can't always account for all the ways that audiences may engage with and interpret information.

Dannagal: This is exactly right. I'll just give you one example: I've had conversations with the editor of what some people call a fake news site, and some call it a satire site. Some people call it a hoax site. It depends on who you talk to. The editor says it is a political satire site called *The Daily Currant.*

There's a story that got a lot of play there, that had a headline of something along the lines of, *Eating Grits Linked to Homosexuality.* When you talk to the editor of this site, who creates this content—if we are to take him at his word, he intended it to be read ironically and satirically. Like, macho men down south, who eat grits are ironically, are going to become homosexual through their consumption of grits. Now, is that great satire? Not.

Brian: [laughs] Right.

Dannagal: Right? He'll say that if you read it literally, and if people read that literally and say, "oh, interesting, eating grits is going to turn me gay," that is actually not serving his purpose anymore as a satirist. His goal is to somehow shed light on something and get people to think of things in a different way or challenge something.

Brian: It does open the opportunity for there to be more discussion about the intent…

Dannagal: Correct.

Brian: …or indicators. Even after posting material, there's some indication of then going somewhere with that to suggest that this was the intent of that argument they just laid out with that example. Point well taken. I think that's a useful distinction as we look here moving ahead.

Well, let's talk actually. You raise several examples like this in the classroom, and it would be a lot of fun to sit in your class, I'm sure. Let's talk about teaching for a minute. Do you find that students generally approach this topic with deep scholarly interest, or are they often drawn by the promise of watching clips of *The Daily Show* in class, or are those two things not mutually exclusive?

Dannagal: Of course, I'm going to tell you, Brian, that they want to come to class to have their minds enlightened by all of the profound things I have to say. When you have a class that's entitled Entertainment and Politics and in the course description, it has Jon Stewart, John Oliver, and *House of Cards*, I am sure that there are other things driving their enrollment in my class.

However, what becomes clear very quickly on day one—because I have to go through a bit of a winnowing process—is when they see the reading list, and they start to understand the extent to which we will be discussing theory, cognitive psychology, and the processing of narrative and irony and how the brain operates; then, people tend to drop out. I'll put it that way. The students who are on the waitlist waiting for a spot generally get into my class because during that first week, many people do leave.

Brian: The syllabus is no joke at the end of the day. They come in and they realize that it's going to be a serious endeavor.

Dannagal: That's especially true in my Entertainment and Politics class. I actually have them read a lot of original research articles. This is for seniors

and a handful of graduate students. They're reading original research, often media effects research studies, and they have to do some reading critiques. There that's some heavy-duty stuff.

Brian: Absolutely. Well, we're moving toward a break here, but I want to ask you a question. There are so many examples that we could draw from, and thinking about both teaching these ideas and doing your own research, what are some of your own favorite illustrations over time of how humor appears to have affected politics in the United States? I'll give you a chance to answer that, and then we'll head to break.

Dannagal: Great. A few—there are so many wonderful examples. For my purposes, even though it didn't have a strictly political outcome, it definitely had a performative outcome. When Jon Stewart and Stephen Colbert hosted the Rally to Restore Sanity and/or Fear on the Washington Mall, they hosted this event and invited everyone to come. They had a quarter-million human beings occupying this space just to be together and to rally against this media circus fear machine—I'm not sure what it was, and many people have criticized it as a result.

In my mind, what that suggested was that there are a lot of people who are being spoken to by this genre of information. They are looking to be moved, and they're looking to have their physical bodies moved into a political space. Now, I don't know whether that event necessarily moved them with political purpose, but it definitely demonstrated that something big is going on here. That's one.

Another I would say is that when Stephen Colbert created his own super PAC, this was like performance art on steroids. He created a super PAC and then he ran for president of the United States of South Carolina. He encouraged other citizens to create their own super PAC. He explored the limits of the super PAC and realized that there were not very many.

He hired a former attorney, Trevor Potter, to figure out what could he do with his super PAC and realized that he could almost use it for purposes of money laundering. That was such a brilliant way of exploring with the audience something that is so complicated and dull to report on. He did it in a way that demonstrably affected how much the audience understood about super PACs and how much they supported them.

Brian: That's great. Those are both really compelling examples that really highlight just the role that humor does seem to have come to play, particularly recently.

Today we're talking about humor and satire and political life in the United States. With us to guide our understanding of this timely topic is Dr. Dannagal Young, faculty member at the University of Delaware. Now, Danna, I asked the easy questions before the break. Now it's time for a really tough one. Here's a theoretical question for you. Why do people laugh? What purpose does humor seem to serve for us as human beings?

Dannagal: This is probably more outside my wheelhouse, because I see laughter as something that is biological and physiological. We all know that laughter comes outside of the context of humor. That's the reason why I say it's outside my wheelhouse, because I study humor. Laughter can happen when you're tickled. Tickling isn't humor, right? Laughter can happen at a funeral, and it's nervous laughter. What we understand about laughter is really that it comes from a violation of expectations. That is often why there is that nervous laughter that arises sometimes, or I have a five-year-old daughter, and all I have to do is poke her under the armpit, and there's just a giggle fit.

It's that anticipation and then the breaking of expectations. Humor is its own beast because it doesn't necessarily result in laughter. That's one of the things that's quite challenging. A lot of very sophisticated political satire pieces don't make people laugh. You might go, "Ha ha, that's a really laugh." You might even say, "Ha." That's not laughter. Yet, does that mean that they're not funny? I see them as—and this is me dodging, Brian—two distinct things.

Brian: I notice that you're an expert at it, though. It's actually very, very insightful, in terms of the distinction. Also, I think even in your profession of not having an answer, there's a lot in that. Think about before the break, how you talked about, in your examples, the basic human connection that seems to be brought about through the experience of humor and laughter as well. I think that there's some element of bonding and connection that seems to be bound up with all this. Then you think about the roots of irony and satire in terms of expectations and violation of those. There's still a lot more for us to sort out. That's part of what makes this area so fascinating to think about.

Dannagal: Absolutely.

Brian: Well, let's talk about rooms where there is lots of laughter. That's something that I want to turn our attention to. In my introduction, I noted that you spend a fair amount of time on stage aside from your teaching and

lecturing. What our listeners might not know is that you've been yourself an active improvisational comedienne for years now. In fact, visitors to the Philadelphia area might have even seen you on stage and laughed at your performance. How did you ever get started with that?

Dannagal: Right when you said that, I realized, "Oh, my gosh, it has been a long time." I've been doing improv for 20 years, Brian.

Brian: Well, we're both getting old [laughs].

Dannagal: It is so weird because I'm 23. How is that even possible? I have performed with improv through ComedySportz Philly since 1999 when I moved to Philadelphia to attend graduate school at UPenn. Before that, as an undergrad at the University of New Hampshire, I was involved in an improv group called Theater Sportz. For me, it was just play. It was just fun. It was a way of making things up, getting attention, and making people laugh. It really is a way of entering a world of make-believe. It is a way of just using your imagination and playing house for the rest of your life, and it's delicious.

I don't think that I understood when I started the extent to which the philosophies of improv would be so useful in so many other realms of life. Listeners might be familiar with standup comedy, but maybe less so with improv. Improvisational humor is really making something out of nothing on stage, usually with the same partner or partners. You're given a suggestion by the audience and then you just create something. The ComedySportz format is short form, and so we do it within the game context. It's very similar to a show that was on TV called *Whose Line Is It Anyway?*

One of the things that's amazing about it is that you're creating something from nothing. You're doing it with a partner. You have to listen, and you have to accept the offer that your partner gives you and build upon it moving forward without moving too far. It's always being attentive to the emotional cues of the person that you're on stage with so that you're not denying their point of view, making your emotional point of view clear. It's a wonderful art form. We offer classes—a lot of people take our classes, and they find it really powerful experience just for life. I love it.

Brian: Again, there's this theme of communication, and a reference to shared material and connection that's necessary to be a good improv performer. I've always been curious about this. How do your fellow performers think about sharing the stage with a lofty academic researcher? Do they ever accuse you of taking notes for a paper of yours during rehearsals?

Dannagal: I guarantee you that no one in ComedySportz Philadelphia thinks of me as a lofty academic ever. There is no way. I think that some of them actually think that my PhD is a lie because the thing is, it's a play space. One of the things that has been most useful for me is recognizing that the construction of this art form is so antithetical to analysis of that art form. The only way that I am able to really perform in ComedySportz is when I take off my professor hat altogether. I'm just a goofball.

We're in there. We're having a good time. We're connecting with each other. There are moments when things that have been on my mind would come out on stage just because they're salient in my mind. That's always interesting. I often make references to politics and media because that's what I teach, but outside of that, it is recess. It is a liminal state of play that is very antithetical to any analytical reasoning.

Brian: Let's talk about this notion of seriousness, then, because we're shifting gears and talking about your life as a satire and humor researcher. In thinking about political science and political communication, have you found it difficult for journal editors and reviewers to take your work seriously? What's been your experience in that regard, in terms of perhaps biased critique or misperception about the level of rigor given the topic? What's been your experience?

Dannagal: I love that you asked this, because very few people ask this question. There are two different experiences. One is when I present live and in person at a conference, and the other is in the face of my work that is being peer reviewed. First of all, increasingly over time, this has been recognized by communication scholars, and political communication scholars, as something that needs to be studied.

When I first started studying it around 2000 or 2001, I presented early research at the American Political Science Association to a room full of mostly older, white, gentlemen, and I was met with such resistance. What I was doing was applying a theory called priming, which is usually done in the context of traditional news.

The theory simply states that the more that you are exposed to news programming that talks about particular issues, the more you're going to evaluate your political leaders based on their performance on those issues. What I did was I took that theory outside of the news context and applied it in the context of late-night comedy jokes. I found the more that people were

exposed to late-night humor, the more likely they were to evaluate politicians based on the caricature traits that were being locked in the jokes. It's the same cognitive framework. It's the same theoretical framework, but people just didn't like it.

I was told that I wasn't allowed to measure priming that way, even though it was the same way that these stars had done it—Iyengar and Kinder had done it back in 1987. I was told that I couldn't study late-night comedy like that—it was an uphill battle [laughs].

It's not like that anymore. However, I will say for the most part, when my pieces are being peer reviewed, increasingly over time, there's more of an appetite for this research. However, sometimes there are people who will simply say that this is not something that we need to be looking at. They'll make it clear, in how they evaluate it, that they don't even believe that it's worthwhile to study, because it couldn't possibly have effects. Therefore, why would we examine its effects?

Brian: It was just a minute ago, you talked about its enormous power moving bodies around and connecting people, so clearly there's a counterargument there.

Dannagal: That's right. In fact, I have to tell you, I was thinking about this, and I saved a rejection letter I received because maybe because I'm bitter? I don't know. I saved a rejection letter that I received on what is now my most cited manuscript to date, and my letter said, "Talk all about the so-what of this." Even though my paper talked about the illustrated effects of exposure to late-night jokes on public opinion, the reviewer said the audience of these shows is already familiar with the basic facts of late-night jokes, so there's little room for any additional learning from the jokes.

This is not a good database for testing any kind of learning, particularly from entertainment fair. Regardless of what I said, it was like, "Well, you shouldn't have found that, so I don't want it."

Brian: Good. I'm glad you're able to hold on to that and to laugh about it. Okay. We're just about out of time. I'm just curious, looking ahead to the future, Danna, if there are any major questions you think are next for you or other researchers to address, and then we'll probably need to wrap up.

Dannagal: I am currently with a graduate student of mine, Morgan Pfister, and with my current undergraduate, Shannon Poulsen. I have been looking

increasingly at John Oliver and the satire of John Oliver. He is offering something that's really wonderful to this genre, which is investigative satire — just long-form satire, which he can do on HBO because he doesn't have commercial breaks. He does a lot of critiques through analogy.

The powerful use of analogy as a humorous tool that can reframe issues and debate—I'm fascinated by that. I'm also really interested in just the role of emotion in politics and whether it's always good, it's always bad, or if it really is contingent on the context.

Brian: We might just have to have you back to talk about that, Danna. It sounds like a really important next direction to go in. As I knew was going to be the case, time is going to just fly by here. We are just about out of time, but it's been an honor to have a chance to share your perspective with our audience. Thank you so much for calling in today.

Dannagal: Thank you so much, Brian.

Implications for Researchers

- Researchers often have to ask questions about what counts before they can conduct useful research, and in doing so, they can ask questions about the boundaries of concepts. Researchers interested in concepts such as misinformation could learn from literature on satire.

- Understanding the psychology of humor—a notion rooted in understanding expectations and the breaking of expectations—also can help us comprehend why satire sometimes achieves the effect intended by its author and sometimes does not.

Suggested Reading

Brewer, P. B., Young, D. G., Lambe, J. L., Hoffman, L. H., & Collier, J. (2018). 'Seize your moment, my lovely trolls': News, satire, and public opinion about net neutrality. *International Journal of Communications*, *12*, 1408–1430.

Young, D. G. (2019). *Irony and outrage: The polarized landscape of rage, fear, and laughter in the U.S.* Oxford University Press.

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Social Media as News Media (2020)

Social media have emerged in the twenty-first century as a source of information, connection, and entertainment for many people. How should we consider such platforms in thinking about communication regulation? Duke University's Philip Napoli joined The Measure of Everyday Life *in this episode to discuss his book,* Social Media and the Public Interest: Media Regulation in the Disinformation Age.

Brian Southwell: We're talking today in a place that many people would unmistakably label as a mass media outlet—At an interview studio in a public radio station that broadcasts over the air to a geographically defined audience. WNCU also streams our signal over the internet, though, and releases episodes of our show online after the show broadcasts. Even this classic public radio station is intertwined with the internet, and increasingly, the internet is not something that's separate from conventional news media organizations.

We need to think about the internet even when we're talking about mass media. The internet also hosts all kinds of relatively new forms of packaging information. We might, under that heading, put in social media platforms as an example of this innovation—a lot of folks are obviously going to be very familiar with social media and yet may not understand exactly how these platforms operate. Can you help us understand the architecture and the engineering of these platforms? How do they function?

Phil Napoli: Sure. You can almost think about social media platforms as a distribution system for all the content that's on the internet. They provide an attention funnel of source for folks. When you're looking at your news feed on a social media platform, what has happened is all the data that the platform has about you—and your prior behaviors, preferences, and demographic characteristics—is being processed, along with data about the characteristics of all the content options that are being posted to social media that might be relevant to you.

Those two sets of data get paired up, and that news feed represents a rank ordering of the content that the platform believes will engage you the most. It's acting like a programmer for you. It's acting like a gatekeeper for you.

Brian: This is a really important aspect, because as people think about social media platforms, they might be thinking just about ways to connect to friends, to connect to other folks. At the end of the day, there are numerous

people that you're connected to, with lots of information that's flowing through, and out of all that, you've got a limited space in that feed. That's really where that point of intersection is, and that's where I think a lot of the concern has started to arise.

There's a concept wrapped up in that notion of a feed that some listeners might have heard about, but they may not be able to define it themselves. It's this notion of an algorithm. You already started to allude to that idea. For listeners who are really interested and might be curious about that idea, how can we think about what an algorithm is? Why is that crucial to how social media functions? How is that something that might feed into how we would think about even regulation in this area?

Phil: An algorithm, at its most basic level, is essentially a set of instructions for how to complete a task. You can think of a recipe to bake a cake as an algorithm. Within the context of social media, essentially, it is a set of instructions about how to process all those various types of data that I mentioned before—what criteria to prioritize, what criteria to deprioritize. It's a recipe, if you will, for determining which content options—among the many that could be put in front of you—to put in front of you.

Brian: Constantly, it's the case, then, the choices are being made, whether they're visible or apparent. That's partly what we're putting a spotlight on. I want to talk about the implications of all that in just a minute. You've been studying media institutions and media policy for a long time. Now we're in this context of thinking about what people are doing online.

I'm curious, from your own professional vantage point, can you remember back the moment when you realized that, for example, Twitter or Facebook were about to become important parts of your research agenda—maybe as important as thinking about newspapers or radio?

Phil: Was it a decade ago? Maybe even a little longer. I cannot remember who the pundit was, but it was a phrase that caught on for quite some time—and actually people are still doing research on it. The first time I heard the phrase "if the news is important, it will find me," that really struck a chord with me and got me thinking about the dynamics of how our news environment might be changing.

The dynamics of how we approach informing ourselves might be changing. I was just struck by the passivity in it. I was struck by the degree of delegation of authority that it was putting elsewhere—this idea that the mechanisms for delivering news to me will get the job done.

Brian: It sounds like, then, there's partly some worry and concern on your part that there's a sentiment that maybe is inappropriate. That may be, or at least it signals assumptions that people are making that might mislead them. Is that fair?

Phil: Yes, because like I said, it's the amount of authority that's being delegated elsewhere. It essentially puts an incredible amount of faith in these news feed algorithms to put in front of you what's most relevant. That issue of relevance is a contested space. It might be what's most relevant to you personally, and that's really what it's designed to do.

There's a distinct possibility that what's most relevant to you personally is maybe not what is most relevant to you from the standpoint of being an informed citizen or being an effective participant in the democratic process. It's a particular set of priorities that really guides what news reaches you.

Brian: We probably need to be paying more attention to that. Just for a second, I asked you about your own personal history in thinking about this. I want to stretch even further back in terms of history here to raise what I think maybe is a problematic analog, but I'm just curious what you think about this. In terms of trying to pull social media into a landscape where we might think about this as an equivalent outlet to—well, not necessarily equivalent, but certainly in the same ballpark as other mass media outlets. At the same time, you're talking about connections between individual people. If you think back over the last century or century and a half, during all of that time, you often have had people who are individually out and protesting in the street, or people who might be spreading rumors at the bus stop.

Yet, we've tended to think that the regulation, oversight, and ethics of news media as focused on something different than a person gossiping over a coffee or at the bus stop. How are these manifest social connections online now different, in your mind, than the offline and personal interactions that we've tended to worry less about when it comes to some of these considerations?

Phil: I think the most important thing to recognize there is that we have all now developed the capacity, to some extent, to be a broadcaster. Our distribution potential and our reach are more individually than they were within these contexts that you're describing. One of the things I love to do with my students today is ask them, even just to get them to compare now to a decade ago, "How many of you have your own home page, your own web page?"

None of them do. Years back, all my students did. I ask them, "Why is that?" They say, "Well, what would be the point? No one will come to it." I say, "That's the key difference you have to recognize now. Social media has given you, as an individual, the opportunity to reach audiences to a degree that the internet on its own did not have."

Brian: What's interesting about that is there's a bit of a paradox, almost. In the earlier example of the self-constructed web page, there might be a conscious effort on that part to broadcast, if you will, but in many cases, people were realizing it wasn't happening. Nobody was coming, whereas now, you've got active participation in these platforms without necessarily as much. I don't know, but I'm curious what your sense is, about whether people are as conscious of how many people and how many eyeballs are necessarily on that content, or the extent to which they are actually swimming in this area where it's much more about if I tweet something at you.

Unless it's a direct message, it's something that's more visible—it's affecting many other people in positive ways, maybe, or in ways that would be problematic. I'm curious, as you talk with students and others, whether you think there's that consciousness and awareness of the public nature of some of this activity, and if that's something that's also problematic to you.

Phil: I think at this point, especially with younger people, that is recognized and absorbed. I think generationally, we see a different level of awareness, willingness, acceptance, and even desire to live one's life publicly. With older generations, I think maybe you still see some disconnect when they don't necessarily realize.

When we talk about some of the issues related to social media today, I think a lot of them increasingly are focused on even the elderly folks who are adopting social media fairly late in life, and that's a challenging transition to recognize all the ways in which that platform is different from the type of platforms they are used to using.

Brian: As you talk about distinctions, we might think—maybe not necessarily formally, but at least informally—about thresholds and instances where situations, once they become of a certain sort, are something that we ought to think about in terms of our oversight. It seems like at least one dimension of that, for you, is consideration of audience.

That, in a one-to-one conversation, is maybe something different from if you have something closer or more akin to a mass. First of all, is that true that

consideration is really a major criterion for you? Then, what are some of the other circumstantial dimensions that we might start to think about once we start moving this closer toward real policy level discussion about oversight?

Phil: I think what's interesting about this—and in some ways, it's ironic—is that on the one hand, yes, individuals and organizations now have this increased capacity to reach larger audiences, and the term we hear used a lot these days is, of course, microtargeting. At the same time, each of us individually can be delivered, customized, tailored versions of content and messages that reflect all of our distinctive characteristics that have been processed through the data trails that we leave.

We used to talk about broadcasting versus narrowcasting. That's how we used to talk about broadcast television versus cable. It was a "one or the other" type of scenario. Now, though, when we talk about this idea of microtargeting, we're essentially combining the capacity to broadcast and narrowcast in a way that was never possible before. It's this ability to reach large audiences, but to reach them each individually with different messages.

Brian: Both of those are things that you might start to worry about, then. Institutionally, and socially, this capacity for reaching many we might worry about, but then there's also thinking about what it means to reach folks almost individually and to not have others be aware of what you're doing. That is also something you might worry about there. You've sensitized us to a new way of thinking about all this. There's a lot more we can discuss about your new book, and also about the implications of that for different types of institutions.

Brian: Phil, in the first half hour of our show, you outlined some really important considerations in just how we ought to think about social media. There's a lot there to unpack. I'm also interested in how some of this conversation is resonating, or not, with folks working in different professional areas.

I'm wondering about some of the ideas you've raised about how we really ought to be thinking about social media—perhaps in a more serious light than we are sometimes—and how that resonates with how conventional media professionals talk about the new landscape. Do you think that journalists, for example, tend to reflect the kind of thinking you outlined in your new book? Or do you think there's a lot of room, for lack of a better word, for improvement there? What's your sense of the kind of professional discussions that are happening?

Phil: Sure. There's been this interesting progression with the relationship to journalism. I actually see it as pretty analogous to what we saw happen in the '90s, when the worldwide web began to diffuse very rapidly, and you saw news organizations quickly—and without really a lot of thought—put their content online and make it available for free. People who researched that actually went back and asked people, "What was the main reason you did that?" The most common answer was because it was what everybody else was doing.

I think that history has repeated itself as social media has diffused. Once again, news organizations have said, "Well, we have to be there. Everyone else is doing it." Only in retrospect, in both cases, there was the realization of, "You know what? That might've been the wrong decision, or we might've perhaps needed to go about it somewhat differently." Now the pendulum has swung, and in fact, a lot of data indicates that news organizations in particular are actually pulling back from the degree of reliance they found themselves having on social media to reach their audience.

They've learned, for example, that people who engage with their content through social media tend not to convert to subscribers. They've learned a lot more about the metrics and the pathways to news that matter. By the same token, the platforms themselves—Facebook being a prime example—have actually altered their algorithms, in some cases, in ways that reduce the extent to which they will deliver audiences to these news organizations.

A lot of changes have taken place, and perhaps five years from now, we'll be talking about social media as a much less significant part of the news ecosystem than it is now. At the same time, there's an interesting question, which is, if they all vacate this space in a significant way, does that open it up for disinformation purveyors masquerading as news organizations, to gain an even stronger foothold than they do now?

Brian: There's really a lot in that. There's this potential for maybe a bit of disentangling the journalism realm from this space, but that might be itself problematic. Your point suggests a couple of different dimensions about what that disengagement might mean. One, there's less reliance on trying to bring people into the conventional content that way, but I also think it's the case that you've perhaps got greater journalistic awareness of, or maybe reduced reliance on, social media as a source, even. At least that's part of the consideration.

Do you have a sense of growing—I mean, it's really algorithm awareness, I suppose, but on the part of journalists, is there a sense that perhaps there ought to be more reticence or hesitancy with turning to Twitter as a source?

Phil: Actually, I think if anything, that may become more pronounced, because when we think about the resource drain that's happening in journalism, and how strapped they are too, in terms of being able to do reporting in the more traditional shoe leather ways, social media represents this incredible—the old term used to be "information subsidy" for journalists.

There's a whole business of news aggregation out there, and essentially, and literally, sociologists have studied this. They basically will go into a news organization and realize this reporter's job is essentially to monitor various social media platforms all day—waiting for something newsworthy to arise—and then essentially cobble together a story from other sources that are reporting on it. Again, the way of learning about that oftentimes is relying on social media. It facilitates a kind of journalism that is much more about repackaging and repurposing existing journalism than it is about producing original journalism. Again, that's a function to some extent of the economic crisis that journalism is in. This really represents almost an irresistible means of tackling that challenge.

Brian: And it's actually a long-standing concern. Oscar Gandy, decades ago, was writing and worried about this information subsidy notion. Now, it really may be exacerbated by the convenience that's offered in this moment of crisis. I want to turn our attention to some other institutions that are also important as we think about information in society. I'm curious what your take on some of these institutions might be—to what extent, for example, our schools or our libraries are important.

Thinking about these algorithm-based platforms in a productive way, I can imagine thinking about them as an information broadcaster, gathering tools for students or others, or they're thinking about offering workshops or awareness of some of the problems, or none of the above. What's your sense of the level of engagement on the parts of educational institutions—the information institutions like schools and libraries—when it comes to the realm that you're most focused on in the book of social media?

Phil: Sure. That's a great question. I think the key concept to focus on in relation to this is the idea of media literacy. It's something that's been around forever—the idea that we want to teach students to be savvy and well-informed consumers of news. The old model of media literacy was really focused on things like how to detect bias in reporting and things of that sort. It never really caught on, because within the educational environment it was, "Oh, that sounds a little fluffy. That sounds a little light."

Now, as the news and information environment has grown so much more complex, and the consequences of being an uneducated user of this environment become more pronounced, we're seeing multiple states around the country that have introduced legislation to actually mandate media literacy curricula in schools. For someone who's in a public policy school, it's very interesting for me to watch the issue of media literacy essentially become an education policy issue.

I think that's something very important going forward, and there we are looking to, and hopefully borrowing from, places like Finland, where in fact media literacy is taught from grade school on. There are models out there for us to potentially follow, and apparently, they've had tremendous success in producing a citizenry that is quite savvy at identifying disinformation and quite resistant to the effects of disinformation. We really need to think about it generationally as well. Again, we see evidence of this as we start to see media literacy legislation get introduced in several states.

Brian: Well, there's an interesting aspect of that, too, though—that actually goes directly all the way back to some of the technical and conceptual ideas that you raised in the first part of our discussion. Media literacy in 2020 has the opportunity to consider things about algorithms on social media platforms, as opposed to maybe what might've seemed like the softer observation of, "Well, there are moments when decisions get made as to what goes into a headline, and all of that."

There is a technology and a science underneath this, akin to some of the technical knowledge that one might need to understand medicine and health as we think about health literacy. It's a complex arena, and maybe that also gives a lot more fodder for some of these programs. I'm curious, looking ahead, down the line here, what we'd be thinking about next? If we were to advance and look ahead 15 years relative to where we were 15 years ago, it may or may not be social media platforms in the same form.

What are the other communication phenomena that seem to be on the edges, or on the frontier, that might also be problematic in terms of our conceptual awareness that you might be turning your attention to next? What phenomenon seem to be next for you?

Phil: This is more immediate term than longer term, but one of the things we're turning our attention to is this intersection of the crisis with local journalism and the susceptibility of social media platforms to disinformation.

We just saw it happen over these past couple of weeks here in North Carolina. There was a site called North Carolina Breaking News that actually generated a fair bit of reporting.

It was a flagrant disinformation site masquerading as a new site, operating just as a page on Facebook. It amassed 50,000 followers within a month, and it was producing content that was sometimes actually taken from actual reporting done by The News and Observer, but then it was being rewritten and repackaged with falsities baked in—changing the location, changing details. Facebook actually took that page down a few days ago.

That really represents how this perfect storm of the declines affecting local news organizations, as these news outlets go away, creates a bit of a vacuum that this thing can fill. We're actually finding that some of these outlets that are emerging are taking on the name of newspapers that went out of business. Then again, they're masquerading as traditional news organizations, oftentimes with a very clear political agenda.

Again, there's one thing—there's partisan news, and then there's disinformation. They are two different things. We're seeing the degree of falsity that we're seeing in some of these sites, and that's a real cause for concern.

Brian: Well, partly what's key there, though, is the actual underlying platform for delivery. You talk about a page on Facebook that's constructed. This might sound like an outlandish idea, but is there a possibility in the local landscape of some kind of return to a world where you had a printed newsletter or a printed paper, almost as a protection against some of this interference?

Is that something that you could see gaining traction at some point, or is that just impractical, either environmentally or from a sustainability standpoint?

Phil: I think user behaviors are what make it very unlikely, but really what it gets at is figuring out how to reconstruct some barriers to entry, to use an economic term. The other extreme of that would be, as people would say, "Freedom of the press applies to everyone that owns one." And that was a very limited group of people.

The pendulum has swung completely in the opposite direction, and that's made us a bit nostalgic for the days where there were at least some barriers to entry to be both producer and distributor of content. The important thing to recognize now is that both of those things are well in the grasp of a much wider array of individuals and institutions.

Brian: What's fascinating about your point is that in the early days of the internet, a lot of the discussion was around the possibilities for democratizing content for lowering those barriers to entry, and because of what people are worried about in terms of that concentration, things have changed. Now the problem is different for different reasons—perhaps the doors are too wide open there. We've got to wrap up here in just a minute, Phil.

I wonder, do you have any last thoughts in terms of unanswered questions that you'd love to be inviting people to be turning to, or other research that you hope to get to one day that we really ought to be focusing on next?

Phil: Well, I think there are a couple of things. One is this question of all the ways we can produce a populace that is more self-reliant, more self-sufficient, less susceptible, and more vigilant in navigating their news and information environment. The other is, how do we navigate the lesser of two evils? There's the question that we face in the regulation and governance space, which is, do we want government stepping in here, or do we want the platforms to exert more autonomy and more authority?

Both of those have plenty of reasons why they're not appealing. A lot of what I'm grappling with these days is trying to figure out what mix has the potential to be valuable?

Brian: At the very least, you're helping us get a better understanding of what the questions and problems are. We really appreciate that, Phil, because it's a valuable service. Thank you so much for joining us today and talking about all this.

Phil: Sure. Thank you.

Implications for Researchers

- Social scientists interested in civic interaction should consider the historical circumstances of their work. Changes in what communication technologies make possible or encourage at different points in time can suggest different ways of understanding human decision-making and public opinion.

- Patterns of information engagement can offer important evidence for policymakers to consider. Knowing how people tend to engage with news, and their expressed perceptions of how to find—or be found by—important information, can suggest potentially dysfunctional aspects of a current information environment that might not be immediately obvious without considering audience behaviors and perceptions.

Suggested Reading

Napoli, P. (2019). *Social media and the public interest: Media regulation in the Disinformation Age*. Columbia University Press.

Media and Social Movements (2017)

Media outlets report on social movements, but what roles do media outlets and platforms play in shaping and constraining media outlets? This episode featured an academic researcher, Sarah Jackson of Northeastern University at the time of the discussion; Soledad O'Brien, a television journalist, documentary filmmaker, and CEO of Starfish Media Group at the time of the discussion; and Shanelle Matthews of the Black Lives Matter Global Network at the time of the discussion.

Brian Southwell: In the United States, we live in a country of social movements. Throughout our history, our democracy has been characterized by cacophony. We've had lots of voices competing to advocate for different ideas. In fact, the notion of a social movement is, in a sense, in our DNA when you think back to the American Revolution, which in its own moment was a social movement.

Look ahead, recent history has been characterized by all kinds of references to social movements. Consider, for example, headlines about the Tea Party or the Labor Rights Movement, or civil rights. I had the opportunity to study with the late Julian Bond, who was a historian and an activist in his own right and certainly a prominent figure in the Civil Rights Movement. Here's Dr. Bond, as he narrates the famous documentary, *Eyes on the Prize*, and talks about the March on Washington in 1963

[music].

Julian Bond [audio from *Eyes on the Prize*]: The movement that had learned to mobilize communities now set about trying to mobilize a nation. Across the country, people made plans to attend the March on Washington, demonstrating for jobs and freedom. Among the thousands who traveled to Washington, they were Black and white activists, labor leaders, clergy, and Hollywood stars.

Brian: He was always careful to point out that social movements were as much as anything about timing and the unseen efforts of lots of people behind the scenes—not just one or two heroic figures. One of the factors that

mattered quite a bit in the twentieth century was mass media coverage and the spotlight that it provided. That spotlight matters and being on TV matters. The question, though, is exactly how and why.

That question about the relationship between social movements and mass media and new technologies is a question we're going to take up this week on *The Measure of Everyday Life.* We've assembled three interviews that provide three different views of this dynamic. First, we're going to talk with a prominent journalist, and then we're going talk with an activist and an academic—a professor who studies social movements and how they unfold.

First, we're going to talk with Soledad O'Brien. It would be difficult to do justice to her career with a short introduction. She's been an award-winning reporter and an anchor documentary filmmaker. She's been a philanthropist and a producer, and now she's CEO of Starfish Media Group. She had quite a bit to say about the role of mass media with regard to social change. We spoke about the 1960s when, all of a sudden, television cameras captured fire hoses being turned on civil rights protestors.

Soledad O'Brien: Then it became a good visual TV story. Every other thing became irrelevant, and it maybe picks its stars and elevates the people who they think are the good talkers. Don't be stunned when it looks like the movement is completely run and organized by men, because that's sort of who's there—look at the reporters. I noticed something really interesting the other day. I was doing a Facebook live show around the '92 riots in LA, in a really interesting documentary that was done called *LA 92.*

It was beautiful, and the guys did a remarkable job, but they cut to all these reporters, and you realize it's all white guys. Starting with the whites, with the Watts riots and even as early as '92, who are leading these really tricky conversation about race in America? Really, all white men at the anchor desk and all white male reporters.

Then, as the time goes on, you start seeing more diverse reporters enter the scene, and partly I'm sure it's because they thought, "Oh gosh, it's dangerous down there. We'll find Black people and send them in, who can go into the community." I'm sure that's how it worked. You end up having the media interpret for you. This is who they think the leaders are.

I used to always tell people that you have to remember the way we in the media can pick people at times is, do they know how to get to the station? Do they have their own transportation? Do they have their own earpiece they can plug in? Do we know basically what they're going to say? "I am outraged." Do we

need to prebook? Do we or don't we need to do the preinterview? It's literally things like knowing how to drive to the station and knowing how to get there—knowing there'll be good TV, because they've done this a hundred times, all those things ferret and winnow out who's going to get on and who's not.

Brian: Soledad, in a lot of ways, provides us almost a sociological insight on the newsroom. That resonated in many ways with what we heard from our second guest, Shanelle Matthews. She's the director of communications for the Black Lives Matter Global Network.

Shanelle Matthews: Once you start seeing headlines that are related to a movement, to some extent, it's already lost in terms of what they're conveying or trying to pass off to the public. It's already lost some of its "oomph." That's because movements start from the grassroots and from the people who are most impacted by the particular issue, and there's such a widening chasm between those people who are impacted and those people who are reporting on that movement or that experience—we lose some of the power, and I think the vigilance, in the reporting.

I'm a journalist by training, so I do know how some of the newsrooms work. The extent that you're trying to please readership over trying to necessarily report exactly accurately what's happening in the movement is, I think, a precautious place for journalists. We can debate about that all day long, and I'm sure that there are some journalists who would disagree. To them, I would say, "I welcome your debate."

Brian: All of this begs the question, then, as to where the initial impetus for social movements really arises. This was something that we thought Shanelle Matthews could weigh in on.

Shanelle: Movement comes from a deep desire for a change and also a deep experience of despair from a particular group of people. Oftentimes, they start with a vision for change. What people are really looking for is the material conditions under which they live to change and for us all—to be able to make the best decisions for ourselves, our families, and our communities.

Oftentimes, I think that the indicators for movement might seem very tangible, like more newspaper headlines, or perhaps a bigger push on social media protests, or something that oftentimes lingers for a long time in broadcast news. Certainly, those are indicators of a swelling movement moment, but it doesn't necessarily mean that there's going to be an uprising or a sustainable movement.

Sustained movement often doesn't ask if the vision that we're thinking about can necessarily be implemented. Sometimes those questions aren't even necessarily considered, because the tools that we have access to aren't necessarily the tools that we're going to be able to use to build the movement that we want to see. Instead, to see real systemic and foundational change, we need to imagine a world that doesn't yet exist.

Brian: All of our guests mentioned social media when we talked with them. Now, the idea that Twitter, Facebook, or a different social media platform could affect social change might have seemed outlandish just a few years ago, but the technology now offers a forum that we at least have to consider. That offers us the chance to bring Dr. Sarah Jackson into the conversation. She studies new technologies, media technologies, and the way that they relate to social change. She's the coauthor of a new book called *#HashtagActivism*.

Sarah Jackson: Yes and no is the answer to the question of if social media is transformative or not. Yes, because certainly, it's new technology, and one of the things we—and I'm a counter-public sphere theorist—is that digital spaces like Twitter, and other social media spaces enabled by technology, have absolutely opened up the public sphere in a way that has made it more democratic.

We all feel that there isn't any question about that—we are living in a moment in which more people, and more different types of people, are able to engage in political debate and dissent in ways that are public, get picked up by the mainstream, and garner mainstream attention than maybe at any other point in history.

We think that social media has become transformative for encouraging a diversity of voices in terms of democratic thought and debate in our country. The big caveat, of course, is that also means voices that aren't activist voices, that aren't social justice voices, and that aren't voices for equality also have been enabled through this technology. The technology itself isn't inherently democratic. The technology is only a tool that can be used democratically or not.

Soledad: I think social media has changed that conversation a lot. For example, Ferguson, I would look to where, if I'm not mistaken, there were things unfolding at the same time that the White House Correspondents' Dinner was happening. I remember following both on social media and thinking about how all these journalists are in tuxes and gowns over here, but

there's a story unfolding that all of them would be going to if they weren't at this fancy dinner. What you find is that social media has gotten much better at ferreting out social movements because that's how people are communicating with each other, and journalists get on social media to actually follow where the conversation is going.

You can really do this literally. for example, when I wake up in the morning and I check my Twitter feed, I can tell if there's been a small earthquake say in LA because you can just see the ripple happen in your feed. Someone says, "Hey, did everybody else feel that?" All of a sudden, everyone starts weighing in, and then you get the feedback. People start retweeting what the folks who track earthquakes said, et cetera, et cetera.

What starts as a movement of just regular people then starts looping in those official voices that confirm or deny the conversation that's happening among those regular people. I think that's actually a good example of how social movements go as well, because what happens is someone will say, "Did you see this video?" That video gets a certain virality to it.

At that point, the media often will pick it up and start creating a conversation around something that's actually already been a conversation. They bring it to more people—maybe people who aren't on social media as much age-wise—who can make a difference. Then they start working in tandem; you start seeing who's talking about what.

There was an artist in Chicago who'd taken a picture of Michelle Obama. He didn't quite say he'd taken a picture that was done, but that he created a mural.

If you read what he wrote about it, it was a beautiful mural. It was of Michelle Obama dressed as an African queen—really beautifully done, taking up a huge wall. On social media, you can find this with a very quick search. People started saying, "This is a picture that was taken from another artist."

Now, the person who posted it and painted it on a giant wall never said, "I found this online, and I was stunned by its beauty, so I recreated it, blah, blah, blah." He just took it. With this young female artist who had just done some drawings on her own and posted them to her Instagram page, I think it was, defenders of her were like, "Oh my goodness, this is a stolen picture."

Very quickly, there was this sort of online justice, and this well-known artist, who had raised funds for this picture, ended up apologizing first. "I apologize to…" I think her name online is East African Girl or something, and people would say, "That's not good enough. She has an actual name. You have done the unthinkable."

Think about that. How many times something like that has happened in the past—where someone just saw something they liked and because they were bigger, they just took it and stuck it on a wall? He completely claimed it was his, but if you read it, you would certainly have thought so.

It was a little bit of the sin of omission and eventually, very quickly—I'd say within three or four days—the entire cycle had come back around. I think that that has forced the hand of media generally, because there's just this other narrative, and all that other narrative needs is other people to pass it along.

Brian: We're talking with three different guests about social movements and mass media, new technologies, and how it is that movements evolve over time. When we talk about mass media, it's tempting to think about that as a monolithic force, and as one entity, but of course, mass media is plural, and we have to think about the different technologies that comprise mass media—when you think about radio and TV, and now there are different internet applications.

We can also think about history. As these different technologies have been introduced over time, they've brought different changes—different opportunities for activists, for journalists, and for the public to interact. One of the things that we did with our guests was to ask them to reflect on these different changes over time. Here's Soledad O'Brien talking about how it is that the current environment differs from previous moments in history. She recounted a story that nicely illustrates the differences between the 1990s and the current moment.

Soledad: A tornado had torn through, as they seem to always do, a trailer park. At some point, someone came to our live shot location, which was in the classic horribly disfigured, damaged area behind me. Someone said, "The people over at this other trailer park were also damaged, and they're mad that you guys aren't coming to them."

Literally, they physically walked to us from where they work. We recognized that actually, there was another story happening over there. We started sending cameras to go, and there are whole kinds of logistical reasons why you couldn't get a truck there, but they really felt like their story would not be told unless the media came and showed pictures of it.

I think that was a very 1990s or early 2000s way of how you covered stories. Now, of course, someone else would be shooting those pictures and

posting them, and media would say, "Oh my gosh, look at those pictures. There's clearly an amazing story over there. We need to go there too." I think that that's the little bit of a difference. I don't know that people stage events as much as have events and just hope someone will cover them. Now, I think there's a negative side, too—lots of negativity, lots of unpleasantness, lots of pranking, and lots of horribleness as well.

Brian: The reliance of social movements on mass media as tools comes with some important trade-offs. We live in an information environment with a quickened pace relative to previous moments in history.

Shanelle: What tends to happen is, we know that the media has their own biases. Individual reporters have their own biases, and also, we're contending for a very small amount of brain space within the American news consumer because of an overconsumption of information at this point that we're experiencing. We're mindful of the ways in which perceptions and ideas of Blackness impact people's ability to engage with Black people on an interpersonal level, at the ballot, and through the systems to which we're all bound.

Personally, I take very seriously deepening people's understanding, but also significantly reducing their bias toward Black people and Blackness generally—enough also to galvanize more support for the movement. I think oftentimes there's a lot of people having what sometimes feels like a superficial desire to make change. This isn't necessarily a criticism, but this is also a byproduct of how healthy people are these days.

They have a deep desire to make change, but they're also not investing the time into understanding what it really means to be Black in America, with the experiences of Black people, and how to support Black people in winning real improvements in our lives through legislation, organizing, or through giving their dollars and whatnot.

Brian: Our guests have lived professional lives where they've been able to experience and directly observe a lot of the dynamics that we're talking about this week. We also have the opportunity to hear Sarah Jackson talk about this from an academic perspective—how it is that you might actually study the relationship between the outcomes of social movements and mass media technologies and new technologies. There are some twists and turns that come along with the academic inquiry into this arena. There are some ethical choices, for example, that sometimes need to be made.

Sarah: For the forthcoming book on *#HashtagActivism* that we're writing—it's myself and my colleagues, Moya Bailey who's a digital humanist, and Brooke Foucault Welles who's a network scientist—what we decided was really important to us in terms of including and being reflexive about the communities that we're studying. We decided that we would ask one of the influential hashtaggers from each of the communities we study to actually write a little talkback to be an insert in the book.

We were able to actually secure, for every one of our chapters, an activist who played an important role in the hashtags that we were studying—or, in some particular chapters, who was writing a brief talkback and blurb for us about their hashtag and their experiences as an activist.

Brian: Dr. Jackson's approach to scholarship on social movements in a lot of ways illustrates the challenge of understanding social movements. It's the question, ultimately, of who gets to speak. Mass media provides a platform but not one without complications.

Sarah: I think the hardest thing is to listen to people. When we started doing our Black in America documentaries, we'd hold screenings and people would stand up and say, "We're Latino in America." I remember one guy stood up and he was like, "You did not include any Peruvian, Texans in this." I was like, "Yes, you're right. That's not how you do a doc."

Sometimes, I think I tried to be very blunt with people about, "Let me explain to you how it works and what good storytelling is. Some stories are really good stories and they're never going to make it on TV because that's not how it works. It has to be good visually. People have to be good talkers. Those things will disqualify someone from being a TV story."

We used to have to be very blunt—I think it worked out well, because I think people felt like they were heard, but I was also going to tell them how it worked. Certainly, when we did our first Black in America doc, we had divided the doc, which was three, two-hour pieces. The first part was a look back at the legacy of Dr. Martin Luther King. The second and third parts looked at the Black man and the Black woman. We literally divided it that way, just because we had to figure out the fact that it was two hours and two hours; how do we divide it?

Looking back, I never would have divided it that way. I never realized, at the time, how inappropriate that division was. A second thought is putting it too high on the list. It was just like, "Yes, divide it this way." Now, of course,

you realize that screams volumes of what you're trying to say about a community—things we were not trying to say, actually. I had a real problem if we felt like we were trying to say that, but we were not trying to say that.

People started asking me in screenings, "Why did you divide it that way?" I'm like, "You're right. That was a mistake. Given the chance, I wouldn't do it that way again but let me walk you through my mistake. Let me tell you what I was thinking about and how I did it wrong." I think there is a lot of room if you're authentic in telling people you screwed it up. I really do. I think that in some ways, social media has a lot of leeway for authenticity. What people will call you on is if you BS them and continue to BS them—it won't hold.

Shanelle: I take a "fail fast to learn fast" approach to my work and use design thinking a lot. We're taking a prototypical approach, so there's lots of failure, and then there's a lot of stuff. More or less what I believe in terms of organizing, but specifically around communications in this network, is that we have to try every single tool in our toolbox. What we're trying to accomplish here is no easy feat, and people for many years have been trying to pursue, I think, an environment here in America that's generally better for most people.

I probably would say that one of my biggest lessons and my biggest failures—initially when I entered specifically into the reproductive health, rights, and justice movement—was assuming that there was one way to do anything. You get this, and you don't go anywhere to learn strategic communications. I think now the universities offer maybe one-off classes and whatnot, but I was a journalist in school and cared deeply enough about the issues that I was organizing around to leave the newsroom and start working full time in public interest communications.

I think that I had, like many of my colleagues, an assessment that we would develop a five-year strategy, we would stick to it under all circumstances, we would please our funders, and we would get some work done. What I've learned about that is this is really about throwing spaghetti on the wall. Behavior change is such a challenging thing when it comes to people's emotionally resonant deeply held values.

What you're asking people to do is unfeed something in themselves, and that requires us to take a multitude of approaches, but also to just not be reductive in our strategic process, because ultimately, everybody comes to their belief systems in different ways. I'm feeling this is no easy task as you well know, Brian.

I think for us, assuming that there was one way to do anything really led to us wasting a good amount of time where we were trying not to put too much pressure on ourselves, but increasingly more people die—become disenfranchised. We take the mantle of trying to significantly reduce that—lots of lessons to learn here. I think that more or less what I strongly encourage people to do is to be okay with failure—to embrace it as a resilience strategy in an effort to continue pushing the needle forward on making some significant change in this country.

Brian: What can we learn then from our discussion? Pointing to a direct cause-and-effect relationship between mass media on the one hand and social movements on the other probably isn't wise. There seems to be a very important interaction at play. You can't have a movement without actors and activists, but we also have to consider time, technology, and other constraints. That brings us to the end of our exploration for this week.

I want to thank each of our three guests, Shanelle Matthews, Sarah Jackson, and Soledad O'Brien, not only for taking the time to talk with us, but also for very frank and candid conversation.

Implications for Researchers

- Many theorists argue that communication technology is not inherently democratic but rather is a tool that can be used in different ways. People may or may not have equal access to such a tool, and such a tool could be used to promote democracy, but it may not be. Assuming the internet inherently promotes democracy is likely a mistake, as evidence suggests both successful efforts to organize and highlight voices through internet applications and other examples of less democratization through internet applications.

- Researchers should not assume new communication technologies, such as social media platforms, only have a positive or negative effect, per se. We can point to ways in which people use social media to improve representation or well-being, and we also can point to ways in which media technologies have undermined representation and well-being.

Suggested Reading

Jackson, S. J., Bailey, M., & Welles, B. F. (2020). *#HashtagActivism: Networks of race and gender justice*. MIT Press.

O'Brien, S. (2009). *Latino in America*. Celebra.

Technology and Relationships (2020)

One common experience for many people around the world during the COVID-19 pandemic was the heightened role of communication technology during our everyday lives. Communication researchers investigated how technologies affect relationships long before the COVID-19 pandemic. This episode, taped during 2020 amid the pandemic in the United States, features Jeffery Hall of the University of Kansas. He has sought to use social science techniques to understand how we relate to each other through electronics and what can be done to improve those interactions.

Brian Southwell: What a strange time to be doing work on technology and relationships. Now, before we turn to your book, I actually want to talk for a minute about just how life's been at the University of Kansas during the pandemic, and as the world has shifted around, as it has for all of us. How's it been out there?

Jeffrey Hall: Lawrence is a little small city in the middle of Kansas, and we're located between the two metropolitan areas of the state. In March, when the pandemic came, the students were already off campus because they had gone to spring break. What was interesting was, within that week, the university's administration made a decision to have them basically not come back.

KU went from a place that had 26,000 undergraduates—and, of course, graduate students and so many other people—to just a ghost town within weeks; then, add that to the shelter and stay-at-home orders. I had never, even in the quietest weeks of summer, seen Lawrence look like what it looked like, and the campus looked like what it looked like—just a complete ghost town. I think the city particularly was very serious about the shelter and stay-at-home orders.

Lots of families, including my own with two elementary school children, stayed at home. Again, you had the process of figuring out how they're going to teach classes remotely, and in a week's time, and then also how to take care of their own kids' needs at the same time. I think that the entire community really rallied around the hope that they would be able to pull it off. I think we did all right.

It's been a really hard summer, as people have adjusted to changing circumstances. I think people were more optimistic back in early June and became more pessimistic as the numbers climbed across the country. We had outbreaks at places that you would expect, like bars when they reopened up.

We also had them among people who were getting together for intramural sports and things that I think people have the perception might be a little safer, because they're outside and athletic.

I think what's unfortunate is the feeling is that generally of weariness, which I think accompanies the entire country right now, and there's a whole lot of anticipation as KU prepares to bring students back to campus.

Brian: It's so much to think about. On some level, it's planning for and adjusting to the current moments. At the same time, it's also an opportunity to reflect on where we've been. That offers a segue to talk about your new book, which is called *Relating Through Technology*. You've taken a look at how we generally interact and the role that technology plays in that. What do we know about our usual patterns of interaction when we're not in the middle of a pandemic? It's something I think people might take for granted sometimes.

If we think about just typically in a place like the United States over the past decade, what does that look like in terms of, for example, face-to-face versus other modes of interacting? What do we generally know about the ways that people interact and how they do it?

Jeffrey: Yes, that's really the focus of the book. I realized by scanning the literature out there that you have a lot of research focused on technology, in the sense that with social media, particularly in the past 20 years, it's become such a critical part of the way people relate to each other technologically. These books really said they didn't care too much about what people were doing face-to-face and how that might influence your online interaction.

The other piece that was missing is people didn't do a lot of thoughtfulness about who's on the other end of that transmission. You'd have big data projects about things like how many tweets were sent out or otherwise. There wasn't really a whole lot of focus on the idea that there's a person on the other end of a lot of these transmissions and these communications, and that matters. What kind of messages we send, the frequency of the content of them, and the timing of it all matter for the type of relationship we're having.

The book was an attempt to consolidate a view that starts with the assumption that humans are social beings that have relationships, and not that many relationships that really matter—a couple of core relationships. Then, there are also people who live in the real world, but also overwhelmingly are seamlessly and actively integrating their mobile phone use and other technological means of communication into their day-to-day affairs.

To answer your first question about this, what we knew beforehand is about 60% of people's interactions, before the pandemic, were from people they were not really close to. These were people that you would see at work, in your community, or when you're walking out and about doing your regular thing. You only had roughly about 18–26 interactions during the course of the day, according to the best literature on this. That wouldn't include every email you sent, obviously, because I sent way more than that every day.

The idea is that interaction is a back-and-forth interchange between an individual or a small group of individuals that actually has a beginning and end point those people are participating in. Well, the pandemic came along and wiped that away. Essentially, all of those outside-your-home interactions that were face-to-face and out in the community were gone. A lot of them just shrunk down to whomever you happened to have in your home.

What was really interesting, in terms of a change in a real-world experiment or quasi-experimental design, was that people went from a point where the majority of their interactions were face-to-face—and the majority of them were with people they weren't terribly close to—to where all of them were gone. We were basically having to meaningfully and thoughtfully replace them through mediated contact, whether through Zoom, phone calls, more social media use, and all of those things.

The literature, while the pandemic was going on in March and April, really supported the idea that this just exploded. Zoom went up four times as much. Phone calls were double their peak rates in 2019, during every week of the pandemic in 2020 for that March and April period. Mobile phone use really increased across the board, and texting otherwise, but social media use also increased. What's interesting about all of this is that it really said what happens when you squeeze that balloon. All of those interactions had to go somewhere, and they got pushed through mediated means.

Brian: It's fascinating in terms of thinking about how something like this can really fundamentally shift those patterns. That said, it's not necessarily a perfect substitution—in fact, that's really central to part of what you argue, which is that these various modes of communication really are quite distinct in important ways. What's your sense, as you maybe share this with our listeners, as to how particular aspects of different technologies and different modalities can affect what's said and how we feel? That's, I think, really important for the moment we're living it.

Jeffrey: Definitely. One way to think about this is when we think from the social ecology perspective, which was the last time I was on your show. I talked about this idea of a social ecology in terms of our face-to-face interactions and what kinds of interactions we had. This approach really thinks from the perspective that we're navigating this network of interactions we have with people in a small group who really matter, and then a lot of other people who are part of our daily lives because of something that we have to do.

What this perspective really says, though, is that when people had the face-to-face communication as being their primary mechanism, people were really comfortable with that. In the book, I talk about the idea that face-to-face interaction is actually middling in terms of how much energy it takes from you when you interact. By contrast, video chats and phone calls tend to take a lot more energy, while text messaging takes very little, as you might think, and it takes even less when people are just kind of scrolling through Facebook, TikTok, or whatever.

So, energy is one big component of this, but the other one really has to do with what you reserve and what you talk about using those modalities. People across the board and across time have really seen phone calls as being a means of maintaining relationships over a distance with people who really matter to you. Video chat was going in that way as well. However, the research on video chat was so small before the pandemic, because people were not using it that much.

There were a handful of people who really liked it a lot. We had some examples of people who used it when they had long-distance romantic relationships, or international students who wanted to see their families or, grandparents seeing grandchildren. It was really not replacing a lot of other long-distance forms of communication. What's interesting is, with the research in my book, when I talked about these different modalities as they compare, video chat ended up being really exhausting as a means of communication, and it usually ended up with something surprising.

What I've found in other research I've done, subsequently, is that it makes people feel lonelier after having used it. I think that part of what's happening there—they're seeing the person with enough vibrance to understand that that person is more physically embodied, but they're also feeling lonelier because they realize they're not getting that kind of face-to-face interaction, which comes with a sense of touch, smell, and ease and calm.

Instead, it comes with this kind of intense looking at the screen, watching everything, paying attention to the glitches and the technology being interrupted, and feeling like when you run out of things to say, you just have to get off. It's a very, very different way of connecting, and it's less efficient in the sense of using more energy and less connecting, but it also has some heart. I think it makes people feel exhausted and lonely, too.

Brian: It's really important for us to think about some of what's happening and maybe being somewhat counterintuitive. I suspect that maybe part of what's happening too is, from an evolutionary standpoint, we are used to social interaction in person, so it's almost second nature for us, whereas some of this is so new, and so there's a novelty effect. I'm interested, here just in a of couple minutes we have before the break, if we look at the current situation here in the United States, we've got all of these shifts in terms of work interactions, classroom instruction, and other ways that are now planned to be online.

Have you been witnessing any mistakes that people or organizations seem to be making, or things that perhaps could be addressed in the future and done better? I know a lot of it was a rush. We had, in the case of schools and in some instances, 48 hours to develop something new, so it was understandable—but still, what are some of the missteps that you've seen based on your perspective, in terms of what we seem to be doing now?

Jeffrey: I'd say that a lot of it has good intentions gone awry. One thing to think about is when people thought, "Okay, we can just add everything on Zoom and it's going to be a good replacement," early on in the pandemic. I thought people from a long time ago said, "Hey, let's get our friends together," and we're all going to talk together and have happy hour on Zoom. Anecdotally, I'd say that that almost disappeared. It had an initial surge for people saying, "Oh, okay, this is going to be the thing to do." Then, people just didn't follow up. It wasn't really all that satisfying.

In terms of businesses and communities, I wonder whether this is going to be a reshuffling overall—whether businesses are going to expect individuals to go into any office or place whatsoever. I think it's going to save them a lot of money if they don't, so they might continue to have people work remotely. But I think, unfortunately, although that's certainly well-intentioned right now, in the long run, it might make people feel more disconnected in the sense that we're already coping with, and most industrialized countries in the world are coping with, a loneliness epidemic.

Add that to the pandemic, which enforces social distance, and you might also have a lot of people who work from home who are single without families or otherwise, really just finding themselves adrift. All they have is the connections they find through Zoom throughout the day or whomever they live with, and that's about the extent of it. I think that's going to create, unfortunately, patterns of communication where you don't get that kind of easy, simple, casual conversation you get when you walk into a workplace and ask somebody how their favorite NBA team is doing, or how bad the traffic was on that place that's getting construction, or what they think about a local school board ordinance.

From my point of view, all of those little interactions also add up to greater well-being in the long term.

Brian: It's interesting. We'll move to the break, but I think a lot of organizations are going to have to maybe even rethink what they're doing in terms of reconceptualizing benefits. I think you might see time and flexibility for taking care of kids becoming important, but also, are there ways people can offer social interaction as a mental health benefit—something that's organized, maybe? So, we'll have to see.

So, Jeff, there's a lot more that we can talk about in terms of technology and relationships and your new book.

Brian: We're talking with Jeff Hall of the University of Kansas about his new book relating to technology. Jeff, I want to talk with you about the title of your book [*Relating Through Technology*], because it strikes me that in a subtle way, the phrase that you've used really matters in explaining your approach. Your book is certainly about technology, but you put relating first, and I think that's really at the heart of your perspective on this. In a lot of ways, it strikes me that the book is a treatise on interaction as much as an argument about technology.

Is it fair to say that sometimes, in scholarship, on communication and social science work, we've over-emphasized technology or technology effects when we first need to consider relationships? What's your take on that?

Jeffrey: Yes, I think you said it extremely well there. There has been, for a very, very long time, this kind of hope that technology is going to save us from the bad things that we do, but also a fear that technology is going to ruin everything that's good. Dystopian and Utopian dialectics have always been part of technological things. What's fascinating is if you look at the '90s, you

had people worrying that the internet was going to ruin everything. They also thought internet was going to be the new change of everything. Everything was going to be better because of it.

Social media and some messaging, texting, and all of these new-ish technologies have gone through these same sorts of patterns. The idea here is that when people think about technology doing things to you, you tend to forget that there are human beings who are using technology in particular ways. The idea that human beings influence technologies, rather than technologies making us do things, is an approach that researchers often really have to work with and struggle against, because there's popular perception that it's just not the case.

I tell a story in the book that I was on a panel about raising kids in the climate of resilience and technologies. I just feel like I was the panelist on that group who wasn't promoting the doom and gloom of social media. There seemed to be just a pervasive fear among professionals—and also teachers and parents—that basically their kids are doomed because of technology, rather than any sort of acknowledgment that kids are actually overwhelmingly replacing their lack of opportunities to interact face-to-face through technologies. That's because they're having highly programmed lives that we as parents basically put on them.

What I'm getting at with all of this is that technology has the promise of being a huge mechanism for bringing us together, but overwhelmingly the question we ought to be asking is, do people actually use it for that purpose? And if they do use it in harmful ways, what is it about the technology that might actually exacerbate those harms or increase the benefits of it?

Brian: It's interesting and fascinating that you frame it that way. On some level and rhetorically, it's convenient if it's the technology. If we start thinking about agency, then all of a sudden, we need to think about what is it that people are demanding? What is it that people are trying to do? We've seen that even with very recent debates about different social media platforms. I think there's a tendency to look at some foreign invasion from either another country or another technology, rather than realizing that part of the issue we really need to consider is what is people are demanding—what is it they want in themselves?

I think similarly, it's another good reason to explain the phenomenal growth of some of these technologies. Maybe part of the reason why you've got teenagers texting is because in an overly scheduled life, there's a core need

to connect. They're going to find a way to do it one way or another, and this has been an outlet as opposed to something that is infecting brains, per se. I think there's room, certainly, and I agree with you—this one goes back to your earlier discussion in terms of thinking about the emphasis on mining tweets and looking at those as evidence of interactions.

Part of it is a matter of what researchers have access to in terms of data, and so it's harder to get into hearts and minds. It's harder to actually see a private interpersonal conversation. It's easier to track something online. Similarly, it's easier to look at the growth of cell phone sales and other things without necessarily monitoring what that means to people. Maybe that's part of the explanation too, because researchers want to publish papers, and they get their hands on data and run with it that way, but it may be in some instances a bit backward.

That's really helpful. I'm curious, now, as you're talking on panels and talking with other folks, are you finding it to continue to be the case that you're more of the lone voice on that, or has there been a lot of technology emphasis in some those discussions even amid the pandemic?

Jeffrey: Whether you know it or not, Brian, you actually just gave a fantastic claim about why the research of some people I also quote in the book needs to be done. You've done a fantastic job pointing out not only is it harder to figure out how to measure the value of a text, but what is the beginning and end of an interaction, what do we think about the content of that, and how we study those things? In the timing where that big data is the answer in research, this book is a call to researchers. It's really written to the research community as much as it's written to the public, as it's to say we need to do better.

We really need to not go to lazy explanations of these things by blaming technology or just simply saying, "let's count things and call it communication," but instead really get into the content of what's communicated, the modalities in which that has been done in the relationships between the people who are interacting. I think to also answer your question in a broader sense, where is this conversation going? Two of the chapters in my book are dedicated to questions about this, because I find they don't have to go away.

One chapter is dedicated to this idea of whether social media is bad for us. That chapter really comes to the research evidence as closely as possible to push back against arguments that social media is—if you listen to the broader media dialogue about this, it's overwhelmingly destroying us. It is ruining

our relationships, and it's making people lonely. My own research and that of many other great scholars really has said there's just not evidence to that. Instead, there is much better evidence that social media use, when it's harmful, can be seen as more of a symptom rather than the cause.

People who are lonely and disconnected turn to social media to try to make up for what's lost in their lives, so they have feelings of isolation or anguish. In the chapters where I deal with this, I actually talk about that—it's really a poor substitute for the kinds of things they need. It creates patterns of keeping going back to that media to try to solve the feelings that they can't solve through social media use.

Brian: It strikes me there that it could ultimately come to that, and this is always unfortunately very complicated to explain, but it often is reality. What we may really have in terms of causal direction, one way or the other, are more reciprocal relationships with a situation where yes, it's not as though social media, for example, is causing this underlying dismay—but in some instances, it's not helping and may be exacerbating the problem because it's a poor substitute. This is a vicious circle, right?

Jeffrey: That's exactly right. People who think of problematic internet use before the social media phenomenon also think of it as a vicious cycle. I'm wanting to think of that too, and in the book, I offer tips about how to think about it—you really want to take an approach to social media that's extractive rather than one that's immersive. Extractive use means you go in, you're very targeting, you look at what you look at, you comment and like, you observe whatever you want, and then you get off. You just end.

An immersive use basically allows you to stay in that ecosystem as long as the modality will let you. I think that people who engage in media use in a more immersive way also tend to find themselves lethargic and unhappy about that, because it's not getting their needs met, and certainly not their social needs.

Brian: In the pandemic, we were seeing some examples of that—so many people have turned to online ordering or to other instances where there are very functional needs they have to have met. In those instances, you know what it is that needs to get done. You're quickly clicking on an app to get a grocery order or to do X or Y. We may see some of that highlighted more, but yes, I think it's a really important view, because I don't think people are necessarily understanding that distinction when they're grouping together all the time online or in front of screens.

Jeffrey: Exactly. "All-time" is usually the way that people measure it. I think that's a really poor measurement for what we're doing online. One example I like to give, particularly to parents I talk to about this, is if I think of myself and my generation, when I was on the phone late at night talking to my girlfriend in high school, I did that because of the relationship with my girlfriend and I wanted to talk to her.

My parents were annoyed by it, partly just because I was tying up the phone line. But in some ways, like me talking to another person I was in a relationship with, isn't that something we ought to be promoting as parents? These days, when we see our kids using gaming, for example—and they have their headset on, talking to their friends from the community and playing some game together, or spending time sending silly videos and photos through Snapchat or whatever—we look at that with the same belief that, "It's such as a poor use of their time."

In some sense, I want to say, "Well, is it really?" They're spending time talking to other kids—usually ones they know well and also see at school—and they're having fun. We have to really contextualize these things in terms of the ultimate purpose of that act rather than the modality they're using, where we just look askance at it.

Brian: Yes, I know, and I wonder if part of the interesting situation now is that parents are seeing more of their kids' everyday life because it's at home, but they are overlooking the fact that at school, it's not entirely focused on academics?

Jeffrey: No way.

Brian: It's focused on what's happening in the hall or interacting with people over lunch. In the last couple of minutes here, Jeff, I know that in your book, you offer some practical recommendations that I think are useful regardless of the pandemic but also useful in this time when we are all in this global crisis together. You found, and I think have some ideas about, ways to use technology well but also how to nurture relationships in general. You've already started to touch on some of that, but I'm wondering if you can walk us through just a few of those recommendations here in the few minutes that we have left.

Jeffrey: Absolutely.

Brian: I think we truly appreciate that.

Jeffrey: I want to be really clear—this is absolutely relevant for the pandemic. We don't know how long this is going to stretch on, but I certainly think that these pieces of advice apply. There are basically three really quick ones that I think that they can be thought of. One is tighten the circle, the second is increase the signal, and the third is basically have more social cues. The first one, tightening up the circle, is because a lot of social media has us attending to more of our timing—more of our attention to people who we don't know very well.

The research generally says the best way to think about how to nurture our relationships is to try to spend more time communicating with people who matter to us more. I was approached by one journalist who said, "Hey, isn't this is a great time to catch up with your fifth-grade best friend that you've been out of touch with for 20 years?" I said, "No, it's a great time to connect with your closest friends that you wish you were talking to more often, because those relationships are going to matter to you over time."

The second one is choosing the modality in terms of it fitting its content— so, strengthen the circle or increase the signal. What I mean by that is that phone calls, for example, have a lot more signal strength, if you will, than do text messages, and text messages have more than social media. If you don't have time for a phone call, at least you can be texting with someone. The idea is, you want to try to focus those relationships toward people actually doing this in a way where they are more routinely choosing stronger modality ways of communicating.

That means some people have to get outside their comfort zone and learn how to use phone calls a little more comfortably. I think a lot of people find phone calls uncomfortable, but I think there are actually evidence points to them being a great way to keep in touch with people and more impactful. The last one is in terms of what we're doing with that time—the ways that we communicate matter.

Whether it's social media or whether it's a Zoom call, when you talk about things of substance, and when you take some time to catch up and joke around, it tends to have a lot more of an impact on people's sense of connection and well-being than does communication that tends to be about more mundane things with less substance. If we're going to make those phone calls and spend the time with people who really matter, it also matters to talk about things of substance, because meaningful conversations, joking around, and catching up still really make a difference in times like these.

Brian: Absolutely. What great advice overall, Jeff, and a good place to leave our conversation. I think you've given people a lot to think about in terms of connecting. We've appreciated the chance to reconnect with you. We're just about out of time, but Jeff, thanks so much for making the effort despite all this to call into the show today, and thanks for joining us.

Jeffrey: Brian, it's been a pleasure. I'd say to all those listeners out there, build those good routines, and keep in touch with people. It really matters when people are appreciated.

Implications for Researchers

- Communication researchers who are interested in how people use communication technologies have choices in how they measure online activities. Those choices are not mundane considerations, as they can influence the generation of evidence about online behavior. Only measuring overall time spent online, for example, is not the same as assessing the nature of one's interactions online.

- Communication technologies can connect people during societal emergencies. At the same time, such technologies also can be a source of alienation.

- With whom a person regularly communicates seems to matter, so paying attention to the nature of social networks—and not simply the number of interactions a person has—is worthwhile.

Suggested Reading

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Growing Up, Growing Older, and Looking Ahead

Resilience (2016)

Connecting academic research to the everyday lives of people was a founding aspiration for The Measure of Everyday Life. *On this episode, we talked with the documentary filmmaker Jamie Redford about his own effort to bring to light research on childhood adverse events—research he believed holds implication for how we can improve well-being. (Redford died in 2020, several years after this discussion.) Redford directed a documentary called* Resilience; *this episode aired shortly after the premiere of the film. As the episode explores, evidence suggests not only that childhood experiences can predict a whole range of outcomes in your adult life, but also that Americans have been facing a widespread and prevalent affliction related to childhood experiences that we often do not discuss. From this perspective, research can offer a voice to people whose experiences might otherwise be overlooked.*

Brian Southwell: Listeners know that each week on this show, we explore how social science researchers contribute to society. There are so many heroic and interesting journeys that people take in doing that research that it makes these discussions every week really a joy to have. Now, at the same time, just generally making social science compelling and exciting isn't always the easiest task. That's part of what's really so admirable with the work that you've done with *Resilience. Y*ou've done exactly that in terms of making this all exciting, and you tell something of a detective story, a mystery, and a drama all at once. Can you summarize for our listeners the big discovery that really drives the documentary?

James Redford: Sure. Well, it all started with a physician in San Diego who was running a weight loss clinic, and he noticed a strange pattern. That's when people radically reduced their weight—they got down to a point and they would drop out. It happened over and over again, and in exploring all of that, it led him down an interesting road in which he had reason to believe that there were psychological reasons people were embracing obesity, which

led him to a series of other questions that ultimately landed on a study called The Adverse Childhood Experiences Study.

It was 17,000 patients within the Kaiser Permanente health-care system—largely educated, largely Caucasian, and largely upper-middle class to upper class—and he decided to do two things: one, get access to their health history and their current health status, and two, ask them a series of questions about their childhood experiences. The 10 questions basically came down to questions around physical, emotional, and sexual abuse, emotional psychological neglect and abuse, and as exposure to violence.

That's what I call radical uncertainty in either your home or your neighborhood. When he took the answers to those questions among those 17,000 people, and he compared it with their health records, he saw a startling result, which is all kinds of elevated examples of autoimmune disease, cancer, cardiovascular disease, diabetes, respiratory illness—you name it. So, the more exposure that these patients had to adverse childhood experiences, the worse their health outcomes were as adults.

Mind you, these questions were all asked of people now well into their 30s, 40s, and 50s. That was a stunning piece of science. It was new, in the early '90s. It's been peer reviewed many times over. It's met all the gold standards now, and yet we really don't talk about it, do we?

Brian: No, and that's really what you're doing with this documentary, is putting a spotlight on this. A part of what's also noteworthy about the documentary is that you document this finding that's been there in the peer-reviewed literature, but you also emphasize hope. There seems to be some potential to overcome some of the effects of adverse childhood experiences, right?

James: Yes. I mean, well, that's the good news. When I saw this study, and Karen Pritzker, my partner sent it to me. She said, "My mind is blown. I think yours will be too." And it was, but initially, when I first saw it, I thought, "Well, this is just a scientific explanation or very bad news. How do you make a movie about this that isn't just one big depressing bummer? I just didn't want to do that. I mean, some people do. It's just a matter of what kind of filmmaker you are, but I'm not—I don't know.

I think of storytelling, I'm drawn to try to provide support and to be additive and solution-based in general. For me, the turning point really came when I read some studies out of Harvard, from their Center on the Developing Child. Those showed what happened with those kinds of

experiences, and with adults who had those experiences as children—if they had either one or a series of relationships with caring adults who were trustworthy, and who were there for them, and it didn't have to be mom and dad. It didn't even have to be relatives.

As long as there was a caring adult present in their lives like an anchor, a lot of these outcomes that you worry about with people's health were greatly reduced among people who had those experiences and yet were able to connect to a caring adult.

Brian: Oh, great.

James: That's when the light went off in my head, and that's when things started to rock and roll.

Brian: Absolutely. It's compelling and clear that you both found the original research fascinating, but this notion of hope and remedy is important as well. You spend a lot of time talking with academic researchers about their work, and you really bring to light a lot of their ideas very eloquently. Do you find it challenging to talk with academic researchers about their work? How was that experience for you overall?

James: Well, I think it is challenging, but I like a good challenge. Then that's the fun of what I do. The challenge is how do you take complicated science and often complex and somewhat inaccessible vocabulary—particularly when you get into certain medical terms, and there's often a lot of acronyms and all that—and how do you translate that to the masses in a way? Because most people just don't pick up the journal, the *JAMA* journal, and read it at night. There's so much important information out there. Researchers can't be tasked with researching and advocating. A lot of people try to put that burden on them, but I don't agree with that because you can't do everything. I can't do that research, but I can tell a story. I can try. For me, it's hard, yes, and I think sometimes, researchers tend to get buried in the weeds when they're talking to you about what you need to understand or know, but I enjoy it. I think it's a fascinating world to be in.

Brian: That's great. It's clear that you have been compelled by the whole experience. I wanted to ask a quick personal question. You talked a little bit about Karen passing along the original article, but I'm sure there are many other motivations and reasons that drew you to this story in particular. Have you, or friends or family members, overcome experiences that fed into what

you're telling in this story in any way? Talk a bit more about your motivations for bringing this particular story to light.

James: Well, I think, first of all, with the 10 questions, they're a start. I think they're really important, because they were the questions that were asked to people to compare their childhood experiences with their adult health. I think over time now, you're beginning to see it evolve into more subtle questions. There are things like if you had only one ace, meaning if you check the list and you say, "Well, the only thing I ever had was verbal abuse." But if you had that every day of your life growing up, that's one thing, versus something else that happened perhaps once and was a traumatic experience in an otherwise very comfortable childhood experience.

There are subtleties there that you wonder about. As far as I'm concerned, I think with most people who read the science, what it does is it gives you a chance to self-reflect. Not everybody has health issues. I suffered a really strange, somewhat inexplicable autoimmune disorder that wiped out my large intestine and my liver, and it set in when I was a kid. All through that time, I think in the back of my mind, I was always wondering if stress was a part of it. Growing up in the '70s with an internationally famous movie star has all kinds of unique things to it.

That's about as far as I'm going to take it [chuckles], but I could definitely tell you that there were some things, certainly having nothing to do with my parents or my family as people, but dealing with the experience of being in that position and that world, and the kinds of things I saw, heard, and bore witness to—the burdens that come with that attention and celebrity. I often wondered because I do think it was stressful.

I'll never know for sure, but certainly I have that curiosity. Sometimes, for me, I think with a lot of people, it's not just the health thing—it's also the way it shapes how you process the world and how you see things. I think for the most part, if people understand that when they've had a really rough childhood, it can help them understand themselves more, then somewhere you can forgive yourself a little bit.

Brian: Absolutely. Really, another just wonderful and remarkable aspect of the whole documentary is that you've given many people different aspects of this to reflect on and to think about because this is certainly an issue that affects all of us in different ways, and we're all part of the same larger community.

Now, Jamie, some critics of this research suggest that emphasizing the potential for resilience actually may end up putting too much responsibility on children to overcome their circumstances rather than calling for structural changes that would help alleviate the stress that's leading to all this in the first place. What do you say to those critics?

James: Well, I just say the following—call me cynical or uninspiring, but I don't think crimes from poverty are going to go away anytime really soon. Should we be working as hard as we can to reduce and eliminate? Sure, but at the same time, think about the [chuckles] Bible—what does it start with? It starts with an act of violence, practically speaking, and this idea that it's in our world, it's in our history, our nature, our nations, our cities, our communities, and our lives—that darkness is there.

If you want to wait around to try and change that before you give people tools to cope with it, be my guest, but that's not my trip [chuckles]. My feeling is that we don't necessarily have to be either or about this. I think people reducing poverty are heroes, and people trying to provide a more equitable societal construct are heroes, but in the meantime, this is triaged, man. We got to help people.

Brian: That's an excellent point.

James: For me, providing people tools to be more resilient in an imperfect world is just being practical and actually more empathetic and caring.

Brian: It's a very compelling response to that. I wasn't anticipating in our discussion today that anybody would bring up the Bible…

[laughter]

Brian: …but you've done it in a way that makes a lot of sense, and I think [chuckles] if you think about the longer perspective…

You're absolutely right. It's an observation about our human nature. Now, I've also been really struck by the translational mission that you've pursued with this project. There's a body of research that you think people need to hear about, and you've attempted to bring this research to their attention and translate that for general audiences.

Now, some people would argue that popularizing scientific research risks losing some of the nuance and detail. Were there any findings or ideas that you found difficult to translate to a documentary?

James: Yes, yes. Try and explain epigenetics. Try and explain what's actually happening at the DNA level, and the interplay between experience and gene expression, and it gets really tough. Basically, being the arbiter of what the average person can and will take in is the role of a documentary filmmaker in a lot of ways, particularly one who's in advocacy, as I am. I try to be very careful, and I always work with support from the scientific community to make sure I'm getting it right.

I also feel my job is to draw a line between where it's just too much for the average person. That was very difficult, to understand and even explain things in a way that I think would be meaningful to people. Yet, you don't want to lose the powerful story, because you can't translate the minutia of the science. In a lot of ways, what I'm doing is think, if you think of a microscope, I'm backing out. I'm backing out to the point where things can make sense to most people.

Brian: That's a nice metaphor and really gives us a sense of what you mean. Obviously, it would make sense that you'd think about things visually [chuckles] in that regard too, but that perspective is one that you have pulled back to a point of really offering, I think, enough to get people really compelled by this. I want to talk a little bit more about that translational opportunity that's there.

You're a filmmaker, and I'm a social scientist in my day job. I think there's a tremendous amount that people in your line of work and that I can do to collaborate for the betterment of society, frankly, but it often doesn't happen. Why do you think that more filmmakers and academic researchers don't collaborate? What can we do to change that?

James: Well, I think ultimately, what you're talking about is, what is the role of the documentary filmmaker historically, and where are we now? I feel like we are just approaching the golden age of socially leaning documentaries, where there's a relationship between issues and transformational change and important information that can help society continue to evolve forward.

It's really the onset of the digital era that's bringing the ease and accessibility with "film content." You're seeing the audio or visual language evolve, and we're now leaning on it more and more. We're very early on, and I predict that you're going to see more and more young filmmakers want to sit in this space between social change and storytelling. In some ways, I pride myself on being one of the forerunners in this regard, but I'm going to have a lot of company over the next 10 years.

Brian: Oh, that's exciting to see that all coming, and you can start to see people being inspired by projects like yours and doing that work. Now, I want to talk a little bit more about a skill set that you bring that I think some social science researchers also have. One of the skills that many documentary filmmakers have in common, and that some social science researchers have in common, is interviewing. What have you found to be the most important considerations in asking people questions?

James: Well, I do a tremendous amount of research and preparation. I always put a long list of questions together, and I review them carefully. When it comes around to the interview, I always make sure I at least have some time with the person. Depending on what it is, sometimes it's a lot of time— sometimes you spend weeks getting to know characters before you have a conversation, particularly if you anticipate it's not going to be easy.

It's not in this exposé investigative way, but I'm just saying some of the topics I deal with are difficult, and you don't want to just jump into people's lives and rip the lid off. You want to get a feel for them and where their boundaries are. I tend to fall on the side of, "I'd rather get less with integrity than more with not." That's part of it, but ultimately, for me, when it comes down to the interview, I don't really interview.

I put my computer away, I put my notes away, and I just trust the conversation. I let my own curiosity guide me. I know that I have this backlog of information that I've stored up in my brain, and in some ways, I feel like if I'm not remembering it live in the moment, then it's probably not worthwhile [chuckles]. I've missed a few things now and then, but when you have a real dialogue with someone, and you just film that as a conversation, I just find that people are more comfortable.

They relax into the experience more, and it just tends to yield better results. Sometimes I'll go back afterward if I have a break and review to see if I've missed anything. It's not like I'm bragging. I'm not, but I'm always shocked. I go back and I look, and I realize, "Wow, I actually got almost everything in, and I didn't even really think about it."

Brian: Well, I don't think it's bragging at all. It suggests that you found a line of work that really resonates with your personality and is partly what you find interesting in terms of human interaction. It's clear in the work that you do.

James: I came up through Hollywood screenwriting. I spent two decades alone in an office with only about four people aware of what the heck I was

even doing. I kept on saying, "If I sell a script, maybe I'll be happy." Then I sold a script—not happy. So then, it was, "Maybe if it gets made, I'll be happy." It got made—still not happy. Then, it went to, "Maybe I should direct it, then I'll be happy." I did that—still not happy. Finally, I had to ask myself, "Am I in the wrong career?"

[laughter]

James: I'm just really lucky because this is my path.

Brian: Yes, absolutely. It's all for the betterment of everybody. It's a good thing you found that. Well, I want to talk a little bit more practically about the documentary. What plans do you and your team have, other than all the screenings that we talked about in the intro and distribution in the normal ways that we would think about? What plans do you have to offer the documentary for public forums and discussion, for use in schools, or in other ways you might be able to spark conversation?

James: Well, our approach is very much a trickle-down approach. A year ago, we started screenings with *Paper Tigers*, and we started with a 2,000-person screening in Topeka, Kansas, because Topeka wanted their entire school district to come to see it. We did events like that last summer—large stakeholder events that trickle down, and then people would go home and into their own districts.

In some cases, if it was a national gathering of pediatric or social workers, then they'd come home and go, "Hey, I just saw this great movie. We should have a screening." That process by now led to about 1,300 community screenings in all 50 states, as well as more than a half-dozen countries, and we're still just going strong. What we're doing is, we're watching to see where the grassroots are taking this film, and we're making sure we support the film getting where it needs to go.

We don't have a traditional marketing budget—our broadcasts are on Pivot. Pivot's a wonderful channel—it's like a part of Participant Media's campaign to bring change to the world through storytelling. We're honored to be a part of that. This is a self-distributing model and it's grassroots driven. It comes up to us, and we respond. Now we're on to educational material as well. We've had over 1,200 educational DVDs sold to various institutions.

We're doing what we can, and I think what I've come to feel about what it means to be trauma-informed in general is that it's something different for each community. You go to a city like Louisville, and they are bringing a

systemic approach to this. They are bringing everyone to the table, whether it's juvenile justice, social workers, pediatric workers, school administrators, or educators, and they're saying, "There's a version of this in every sector, so we want to be a trauma-informed community and city."

That's what we're starting to see—that's what we're supporting, and I think that's very exciting.

Brian: Absolutely. We do need to wrap up here. What a wide-ranging and great conversation.

Jamie, thanks so much. It's a pleasure to talk to you about all your work. Thanks so much for joining us today.

James: Thank you.

Implications for Researchers

- Translating science for general audiences requires that we consider questions audiences might have. Researchers should consider how we might tell stories that explain important concepts while not losing the gist of the empirical work that generated evidence.

- Telling stories about the process of scientific investigation can both explain how scientific inquiry works and introduce compelling questions about the world that can encourage enthusiasm for inquiry in everyday life.

Suggested Reading

Nelson, C. A., Scott, R. D., Bhutta, Z. A., Harris, N. B., Danese, A., & Samara, M. (2020). Adversity in childhood is linked to mental and physical health throughout life. *BMJ*, *371*, m3048. https://doi.org/10.1136/bmj.m3048

Redford, J. (Dir.). (2016). Resilience [Film]. *KPJR films*.

Autism and Family Life (2018)

Neurodiversity refers to the ranges of ways in which people's brains differ. This episode features an interview with Amelia Gibson of the University of North Carolina at Chapel Hill. Her work has shed light on the information needs and communication patterns of families that include a person with autism. This episode not only illuminates important dimensions of childhood and family life for some people, but it also highlights how personal experiences can inspire key research questions.

Brian Southwell: I'd like to start our discussion with something that might have just crossed people's minds a moment ago when I introduced you. What exactly, in the twenty-first century, is information and library science?

Amelia Gibson: I'll start with information science because it's the broader discipline here. As a field of study, information science looks at the ways that we create information—we store information, we seek information. To do that, we have to study the ways people do the things that generate information, and we have to talk to people.

Brian: I just want to stop you there, because in describing that, the word "people" is really important in a way that listeners might not have actually fully appreciated. It's something that's crucial for folks to understand about the work that information science scholars are now conducting. It's the extent to which you're looking not just at how to organize and store information, but also how to look for and understand information. In other words, your colleagues study people as much as you study the names of the organizational books, right?

Amelia: Yes. There's definitely a difference between information science today and I guess the way it used to be maybe 50 years ago. It used to be focused primarily on what we consider the best "ways to organize information" and the best ways to build systems. Today, we spend as much time studying people and the implications of information and data structures for the ways that people can live their lives.

Brian: Then it becomes a little bit clearer for folks, maybe, why a faculty member or a scholar in your arena might intersect with or start to think about autism and the spectrum. Let's talk a little bit further about that. As you're trying to understand generally what people need and want in terms of information, it makes sense that the lives of families with a member on the autism spectrum could be a compelling subject, but how did you end up turning your scholarly attention to autism and family life?

Amelia: My broader research agenda really focuses on information systems that deal with people, or that serve people who are traditionally marginalized in information systems. A lot of my studies deal with people of color or young women, and a lot of the work that I do also focuses on health information. It was my backdrop when I started my research as a young PhD student. Then I had my first child, and she had Down syndrome. I was introduced to this

whole other world of information that was parallel to what I knew about parent and family information needs at the time already. That is what propelled me into that specific area of study as a doctoral student.

Brian: How fascinating that must have been, though, for you to be in a situation like that—having studied and thought about all this in the abstract, and now you're in a moment that brought its own challenges, and that must have felt maybe a bit surreal at times.

Amelia: It also steered me away from a more institutional perspective. This is one thing that is fairly recent in our field. With even, say, public health programs or other types of programs that deal with information and health, we think about users in terms of ways to get them to do things in a lot of institutionally focused programs, whereas a lot of the more recent work that I've seen, including my own, deals with users as having a primary perspective.

Instead, when we talk about disability, we're talking about a disability studies perspective, which thinks about the person—not just families, not just parents, but also individuals themselves who are on the spectrum and their perspectives on how they want to seek information based on what's important to them. That's sometimes at odds with what medical institutions or other institutions want them to do.

Brian: Well, it really helps sensitize us to the fact that there are multiple perspectives out there. It's crucial to take that basic fact into account, but also then to try to address all the different needs that might be associated with those perspectives. When we're thinking about people living on the spectrum and thinking about their families, as we popularly conceive of this or you hear people talk about it in everyday discourse—what do you think we tend to miss in thinking about that? Are there certain things you like to point out that you think, I guess, we typically just don't tend to focus on?

Amelia: I would say this is something I've been guilty of in the past. In my current research, I'm trying to do a lot better with this—focusing on teens, young adults, and adults on the spectrum themselves and less on their family needs. I'm a parent of a child with a disability, and we have a very particular view on life. There's a tendency for parents to want their children to be "typical." Hearing from young adults who have grown up on the spectrum, they are finding a sense of community now, and especially with social media and the internet, they're finding a collective voice.

We're hearing that a lot of the things parents have been saying for a long time they wanted to accomplish as goals, even in terms of information, are not the same things young adults are saying they wanted. There's just a choice of language. It's the question of saying "a person with autism" as opposed to "an autistic person." There's this whole discussion about the difference between institutional but also parental perspectives and individual perspectives. Now that we have these generations of people who feel like they can find community, especially using social media, we're hearing a lot more of what they want. This is really exciting to me.

Brian: Yes, absolutely. Let's even just talk about that last point for a minute, in terms of sense of labels or identity. As we turn more toward dealing with adolescents, for example, what are some of the emergent preferences that you're hearing, in terms of your ways to talk about this, that might be useful for some of our listeners to recognize that there's maybe been a shift, or there's more of a sense of this or that as identity?

Amelia: I was always trained as a young professor, and as a young student, that you use "people-first" language. What I'm finding as I talk to a lot of young adults and adults with autism, or autistic adults and young adults, is that they prefer "identity-first" language. This is by no means across the board. Every person is different. I'm hearing more and more, "I'm not a person with autism. Autism is as much a part of me as anything else—my skin color, my gender." I'm hearing more and more from adults and younger adults that they prefer identity-first language: "Call me an autistic person."

Brian: That's interesting to bring that into different conversations we might have about other demographic labels. In a respectful way, I think it allows people the space to claim their own sense of identity, but that does run a little bit counter to some earlier worries about solely labeling somebody as such. There are some tensions there, but it's interesting, and what your work is doing is really helpfully bringing in the viewpoint of people as they evolve, and that language might continue to evolve over generations.

Amelia: I'm sure it will. What I try to do as I talk to people about their needs and their experiences—seeking and sharing information in their communities—is to reflect the language that they give me. I say, "Some people feel this way. Some people feel that way. I want to do what makes you feel comfortable. Let me know how I should refer to you."

Brian: Let's turn our attention to not just thinking about needs, but also what might be done to help. As neighbors in our community, and as members of this larger community that we're living in, how is it that we might help ourselves here in trying to meet some of those needs? What are some of the key information needs—specifically, then, maybe talk to our listeners a little bit about some of the ideas you have, in terms of intervening, assisting, or providing new systems or tools that offer a way for information science to really be helpful?

Amelia: If we're going to talk about families and parents, one of the biggest things that jumps out to me right now, in terms of my research, is inclusion overall—in education, but also in employment. I would say the first thing to think about is how frequently you see people on the spectrum in your workspaces, your learning spaces, and your children's learning spaces, and to recognize that there is a diversity to life—and part of that is neurodiversity. For parents who don't have kids on the spectrum, are you in a school where your kid is segregated?

This is a form of segregation from children who do have disabilities or who are neurodiverse. Another thing that we should think about is in shared public spaces, like libraries. One of the projects that I'm working on right now is a career grant that's funded by the Institute for Museum and Library Services on the ways that people on the spectrum and their families seek and exchange information in their local communities, and how public libraries as community anchors—and as spaces where people gather and find information—can support that kind of local community information sharing.

One of the things that comes up a lot is that people who are on the spectrum as young adults feel like there is an acceptable portrayal of autism in public. When they don't fit into what they feel is the acceptable face of autism, they either self-select out of those shared public spaces or are asked to remove themselves from those public spaces. You find someone who's considered unruly at a library or at a bus stop, and there's a concern—there's a fear that the police will be called.

People don't know how to manage it or deal with things or people that make them feel uncomfortable. We have a "see something, say something" standard for behavior, but that doesn't really make room for neurodiversity or any difference, really. Those kinds of differences, I think, should be even more widely acceptable.

Brian: So much of what you talked about just a minute ago was fascinating, but really two points are interesting for us to think about. One, you noted that there likely is benefit for everybody. You talked about how representation is actually limiting everybody—even the experiences for children or families who are not on the spectrum, per se—and that's a key point. Second, you also point out that within the community of people living on the spectrum, there's a need to recognize diversity between people and even time-to-time variants.

In today's world, there might be this type of behavior, but that's not necessarily always what you're going to see, and we have to recognize and leave space for that, because it's not always going to be a matter of what sort of fits societal expectations. The idea is, if we don't see that represented, one of the consequences is going to be people just opting out of those spaces we worked so hard to try to create. It seems like you have a vision of the library in a very contemporary way, as being a space that could provide for the community. That's not just doling out information or an archive or warehouse, per se, but that really is almost a civic space. Is that fair to say? Is that how you see it?

Amelia: Definitely. This is the way libraries build themselves today. It's this technology-filled space where people are meant to learn, share, and explore. It's a space where we focus on information literacy—all our questions about fake news and being able to identify good from bad information. These are the spaces that we sensibly create to teach people how to do that, but people with disabilities in general, and autistic people, specifically, are often excluded from those spaces. Either they don't feel like there's information that they need, or the formats aren't really designed for their use. There's so much in terms of technology and access that we're already doing in libraries that could really benefit them, if we would focus a little bit on people who are not the "standard."

Brian: Now, Amelia, in the first part of the show, we talked somewhat broadly about the situation of people on the autism spectrum. One of the recurring themes on our show, though, has been the disparate situations that people face, as a function of factors like geography and socioeconomic circumstances. What do we know about variations in the experiences of families and people living on the spectrum across different communities or in different circumstances?

Amelia: The first thing I'm going to say is that autism really is a spectrum. This is what parents and people on the spectrum tell me this all the time; I feel like I have to say, if you've met one person with autism, you've met one person with autism. This is the phrase, but, in terms of information systems, people do cluster in information access and information needs. People do cluster a little bit more than the pure individual perspective. We know that families that live in rural areas have a markedly higher need for information and services, and that those needs are not being met currently, for the most part.

I did a study in 2015—a survey of about 1,000 parents around the state of North Carolina, of people on the spectrum. One of the biggest things that came out of that study was that rural families didn't have what they need, pretty much across the board, in terms of education information, medical information, and just child parenting or child-rearing "information." That's the biggest thing. Another thing that we know is that not children but adults, who are either transitioning or past transitioning from high school into adulthood, have very few resources, so we do a lot better with children through grade 12.

A lot of the services—even in terms of libraries, but also in terms of health and medical care education—are just recreation, or "what does my child do all day" employment. We have a lot more services, but I'm not going to say we have a lot of services. We have a lot more services and information accessible for those families than we do once adults reach that cliff—we call it "the cliff."

Brian: Yes. It sounds like that's really a spot that we maybe ought to be concentrating on—providing opportunities, services, tools, and systems for people in their 20s.

Amelia: Right. We're at this point where you have medical care, therapy, and things that are getting people older when they just weren't living that long in the past. There is this real need for serving that population, this adult population, who a lot of the time has gone through school, has been included, and has the skills that they then can't take into workplaces because they aren't being hired. There's a really great need there.

Brian: You just talked about the past and changes, and another really important dimension of life is time and history. I wonder what we know about opportunities and challenges for people living on the autism spectrum

now, in comparison to past decades. There are so many different ways we can think about this, but for people facing sensory challenges, for example, on the one hand, there might be more services and opportunities, but I also wonder about something like the prevalence of electronic stimuli and whether that poses more of a problem? How would you say the circumstances have changed for better or worse, or how they have evolved, for people living on the spectrum and for their families?

Amelia: I've been talking to a lot of young adults on the spectrum, or autistic young adults, recently over the last year or two. I would expect this discussion about technology to be overwhelming or too pervasive, but what I'm getting from them is that technology gives them a sense of control that they often didn't have before. Even talking to children, maybe as young as age seven, I hear some kids talk to me about just wanting from the library, for example, iPad apps that will help them read to themselves and read the words to them, as opposed to having to go to a library and say, "I don't know how to read these words."

There's a sense of control and privacy that technology gives that maybe wasn't available before in systems that required face-to-face contact. There are learning curves, but one thing that we do often see in people on the spectrum is that they can have a strong memory—things like learning how to how to use an app or those kinds of things.

Brian: It might be easier in some ways, or not as challenging.

Amelia: It's not easier for them necessarily or harder for them as individuals, but it gives them a sense and ability to control stimuli that isn't there in many other cases—or also, for adults who are on the spectrum who might not be able to find a large personal community.

Brian: You talked a little bit before about popular culture depictions. How accurately do you think our popular culture—as far as there is one generally now—tends to depict people on the autism spectrum? Are there other examples of people doing a good job of accurately showing life with other instances that have left room for improvement? What's your sense of that as a communication scholar, thinking about how well we depict these conditions in these circumstances?

Amelia: I'm going to say that first of all, my perspective is just my perspective and I'm not a person on the spectrum. I want to start off by saying that I would put that…

Brian: …Respectfully.

Amelia: Yes, respectfully. I will relay what I've been told, from some of my participants/project partners who are self-advocates on the spectrum. There is a sense that there is a single-story going on with autism as very white and very male—people who are "savant at something." They are quirky, in very acceptable cute and funny ways, and they make up for it by being really good at one thing. That isn't everyone's story. That isn't everyone's case. I've heard concerns that this Hollywood or popular representation that presents a redeeming quality makes people feel like they have to prove their worth, almost, and they're like, "I can be autistic, but only as long as this is my good thing."

Brian: "What's your superpower?"

Amelia: Right. I've heard concern about that.

Brian: I could see that. The only way you make it into the public arena is if you have this particular story, and that doesn't respect the diversity of individuals that we're talking about here, so it almost does more damage. It's not as though there's complete visibility—there have been some prominent examples—but whether those are helpful in terms of depicting the full range and diversity is a really important point there. I appreciate you noting that. In the little bit of time that we have left, Amelia, I want to look toward the future. I am hoping that your work is going to be wildly successful and that you provide all kinds of real services for people.

I know you're working in Durham and Charlotte libraries here in North Carolina, for example. Let's assume that all unfolds and people get excited about and want to work on projects like that, but also, let's look at steps in this arena. What are some of the most important next questions that we need to face? What are some of the most important challenges, and how can people join you and start to do this work? What are some steps people could take now to try to help with where we need to go in the next 5 or 10 years in this arena that you've started to build?

Amelia: For me, some of the most important questions are about how we can use technology, information, and data to further include people into our society. That happens on a broad level with your social media and all those kinds of things, but also on a very local community level. How can we provide access to educational information, civil rights data, and that kind of

information? Also, there are questions of accessibility planning and programming that go beyond just giving bare access, but actually consider the needs of people—so, content needs. We need some programs that actually are of interest to people with autism, people on the spectrum, or autistic people, not just those that allow them to be present.

In terms of libraries, the big thing is sensory story time, but there's more to life than story time. In terms of social media, there's web accessibility, but there's more participation than just basic accessibility. That's the spectrum of information there. In terms of people joining me, at the UNC School of Information and Library Science, we have the Carolina Health Informatics Program. That's a program that blends health and information data sciences. Next semester, I'll be doing an open lecture series on disability and information. Then, there will be programs at libraries and in communities around the state over the next two years that'll be part of this project.

Brian: It sounds like a key part. You're working in Durham and Charlotte, for example. Based on what you just said, part of the next step is actually stepping off university campuses, into communities, and working to try to integrate this work with what's happening in communities, which is an evolving arena. That might be one of the most important things: to actually figure out how this might fit into what's happening in a local neighborhood and how it's part of a larger story. It's not just, "Check the box when we have sensory story time."

Amelia: Right. Actually, what I'm hoping is that people don't just say, "Oh, what is someone else already doing for us," but people also look around and say, "Hey, what am I not seeing?" If everyone's the same, and no one ever brings these questions up, can I ask, "What's available for people in my local library? What about this public park? What can I do in my local neighborhood?"

Brian: Part of it might be just curiosity and asking questions.

Amelia: Who's not here?

Brian: Right. It's about asking that question and being prepared for there to not necessarily be a great answer yet, but maybe the first step in trying to get that is just simply asking the questions.

Amelia: One thing that I hear a lot is we don't provide the service because no one needs it. Everyone who's here is happy with what we have.

Brian: They're missing why the people who aren't there aren't there.

Amelia: Exactly.

Brian: Well, that's great. Well, Amelia, thank you so much. There's a wide range of ideas that we talked about here today. I really appreciate you coming into the studio and talking about just this whole arena that some of our listeners may or may not have thought much about up to this point. I thank you so much both for the work you're doing and for visiting us today.

Amelia: Thank you.

Implications for Researchers

- Information science research has evolved over time from largely focusing on how information can be organized—in a catalog or in a database—to now including a focus on how people interact with information. That suggests a need to draw together human psychology research, computer science, design thinking, and a variety of disciplinary perspectives, as many information science researchers have done.

- People usually do not live in completely isolated circumstances but instead are situated in networks and often in families. Research on human engagement with information can address family dynamics that are affected by a person's information engagement and that affect such engagement. Studying educational outcomes, for example, could benefit from understanding social network factors that might affect an individual student. Studying such outcomes in isolation could both overlook important explanatory factors and mask important indirect outcomes of interventions on family members or on people connected to a student.

Suggested Reading

Gibson, A. N., & Martin III, J. D. (2019). Re-situating information poverty: Information marginalization and parents of individuals with disabilities. *Journal of the Association for Information Science and Technology*, *70*(5), 476–487. https://doi.org/10.1002/asi.24128

Gibson, A. N., Kaplan, S., & Vardell, E. (2017). A survey of information source preferences of parents of individuals with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, *47*(7), 2189–2204. https://doi.org/10.1007/s10803-017-3127-z

Happiness and Aging (2019)

Social science research sometimes can offer inspiration. In this episode, author Jonathan Rauch recounts experience as a person afflicted by challenges related to middle age who turned to empirical evidence to look for hope about his future prospects as he aged, and he found it.

Brian Southwell: It's a pleasure to have you here to talk about something that affects all of us in terms of thinking about aging. Many of our listeners are going to be very interested in this possibility of a conclusion that you came to, knowing how you came to the conclusion that there's happiness after age 50. I'd like to start our discussion focusing a bit more on the first half of life, or at least the first half of adulthood, if you will. The idea that happiness tends to decline throughout the first few decades of adulthood is not going to strike a lot of people listening to the show as news, per se, and yet part of what's so compelling about your book, and your approach, is your discernment of why that's the case.

I think that it helps to set the stage for your take on the life span overall. Help us understand a little bit more of what you've found. Getting older can bring physical decline, but there's really a lot more to it than that, right?

Jonathan Rauch: Yes. So, a bunch of economists, of all people, in the late '90s and then in the 2000s, started looking at these gigantic worldwide data sets about happiness. Then, because they were statisticians, they took out all the factors you can think of—like income, health, marriage, employment, and all that other stuff—and they expected to find nothing else, but this weird result kept popping up. It just pushed itself right at them, and that is that there's this U-shaped curve in life satisfaction—that's not your mood, and it's not whether you're cheerful, it's how satisfied are you with your life.

People around age 20 would start out with high life satisfaction, then it would tend to drop with age and bottom out in middle age, and then it would gradually rise. At first, no one knew what to make of this, but then it popped up in chimpanzees and orangutans. It started occurring to people that it seems like age itself—independent of your health, your income, and these other things—has this weird effect, and it tends to bottom out at midlife. Now, people are spending a lot of energy understanding what this means, and it's really, I think, transforming the way we think about aging and adult development—including, as you say, in the first half of life.

Brian: I think many of us in the middle chapter, if you will, can have experience with the decline in satisfaction over decades or some of those changes without necessarily being able to articulate the experience very well. Part of what's interesting and useful from a social science perspective is just your approach to us understanding what variables are on the table and how people are measuring this. You talked about data sets a minute ago, and you're careful to note that you're really talking about satisfaction here. What sorts of measures do social scientists tend to use when they're attempting to quantify the quality of life, if you will, or happiness or satisfaction?

Jonathan: There's a bunch of things they can do, and they do all of them. The big one that I was just talking about is survey data. There is, for example, a Gallup World Poll, which is in almost 150 countries—the countries cover 98% of the world's population—but there are lots of others. The questions on the form ask on a scale of 1–10, where 10 is the most satisfying life you can possibly imagine for yourself, how would you rate how satisfying your life is? Or, just more simply, are you very, somewhat, or not at all unsatisfied with your life? Stuff like that.

There are, of course, other things you can measure. Like, you can look at depression, you can look at prescriptions for stuff like antidepressants, or you can look at suicide. There are also a bunch of external indicators you can use. Of course, if you're a chimp, you can ask the keeper of the chimp, who tends to know a whole lot about how their charges are doing.

Brian: That's a fascinating set of different ways. There's a lot that I want to talk about in terms of your conclusions and implications, but thinking about the science of this is also, I think, quite interesting for a lot of listeners. Part of what you noted just a minute ago, I think, is going to be surprising for some people. That's the role economists have played. I suppose there's some irony there—with a discipline that's been associated with being dismal, being the one to point out what's happening here in terms of happiness, was that surprising to you at all?

What's your sense of the relative array of academic disciplines that are contributing in this area? Are they talking to each other? Is there something unique? Are economists especially positioned to be able to look at the type of data that really is helping us understand this? What's your take on all that from a journalistic perspective?

Jonathan: That's a great question. Part of my book is a scientific detective novel, because this finding, like so much science, it came in accidentally from left field. There's been a notion for years, going back to the '60s, of "midlife crisis" that this Freudian psychoanalyst came up with. Then psychologists went and tested it, and they couldn't find it, and they decided midlife crisis is a myth and that they were over it—then, they went away and lost interest. It's these economists who come in much later, with all this other data, who say, "Wait a minute, hang on, there's something going on in midlife, and it's not just one country or even one species."

Then, at first, the psychologists are really suspicious of that and saying, "Well, wait a minute, you have to look at real human beings and their lives. You can't run these huge data analyses and isolate variables," but then the psychologists have started getting interested. Now they're talking to the economists, and then neuroscientists enter the fray, and these are people who actually look at the way the brain works. The story that starts to emerge looks like a combination of things happens in the adult development process.

One is, when we're kids, or when we're in our 20s, we have unrealistic expectations of how happy or how satisfied we'll be if we get achievements like a National Magazine Award, so we achieve and achieve, and we hit all our goals. We're not as satisfied as we think. We get disappointed, which makes us even more unsatisfied, so we head on a downward spiral, and that tends to go on in your 40s. The second thing that happened is psychologists discovered as we get older and we start thinking more about mortality, our values change, and we start focusing more on the core relationships of life and the core activities that we care most about.

Well, it turns out those are much better things for human satisfaction than focusing on status and achievement—just far better, so we're shifting our values. Then the third thing that happens is in our brains. As we get older—and people don't believe this, but it's hugely confirmed now—our brains become more receptive to positive stimuli and less receptive to the negative. So, we actually get more positive in our outlook. When you look at all these things what comes out is this lifelong transition from ambition when we're young, to connection when we're old, with this transition in the middle, which is often really hard and grinding to get through.

We're still disappointed in the past, we don't have our new values yet, and that's what I went through.

Brian: Part of what's so fascinating about that, and the reason why perhaps the answers lay undetected for a while, is in the story you're telling,

actually—all the factors don't belong to one traditional discipline. You're thinking about the brain, but also there are aspects of society and other aspects of environment. There's really an interaction here between person and environment that seems to happen. I'm interested in contextualizing to what extent you've thought about whether the story you're telling is specific to a place and a time or not?

We could talk about that in a couple of different ways. One might be thinking about some of the publicity for this book right now and shows like this happening in the United States. This is going to resonate with lots of listeners because we're at a time and a place in which some of the pressures that you note are really absurdly high to some commentators, but yet you also refer to, and your book really outlines, patterns that are worldwide. To what extent is the story that we're seeing and these patterns—especially for the first few decades of adulthood—ones that that happen around the world in various countries? What's your sense of geographic diversity in that story?

Jonathan: We know that this pattern is found in countries all over the world, rich and poor. It's not all individuals all the time, which I'll come back to in a second, because that's really important to understand. It's not just one country, it's not just rich or poor, and we also know it's not just one species. Something pretty fundamental is going on here, but we also know it varies from country to country. Richer countries, like America, tend to have their happiness curves turned upward earlier in life. With poor countries, that tends to happen later.

We don't know why yet, but what this tells us is that this has to be both a combination of something that's probably deep and biological—we know our brains change because we can go in and look using fNIRS or fMRI[1]—, but we also know it's social and cultural because the way it manifests differs in different countries. That's why what you said a minute ago is so interesting and important. One reason this took so long to get discovered is that you don't see it just in any one discipline, or just in biology, or just in culture. It's like a jigsaw puzzle, and people had to put it together. It's very important to understand, I say throughout my book, "Your mileage may vary." I'm a textbook case—I bottomed out around age 50 and then began noticing a gradual improvement.

I felt less hounded by these terrible voices that would haunt me in my 40s, saying I was doing nothing worthwhile in life. There are lots of things that

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[1] Both fNIRs and fMRI are brain scanning technologies.

affect your happiness, not just your age. Unemployment, divorce, a Nobel Prize, and all of those things will factor in. It's complicated in individual cases. I tell people to just remember, other things being equal, it's harder to be grateful and satisfied in midlife than before or after, and to be prepared for that.

Brian: It's an important way to think about it. We're going to move here to the break in just a second. Jonathan, also in terms of context and condition, do you think this has really been pronounced in the twentieth and twenty-first centuries, or is this a story that seems to have been with us for a while?

Jonathan: I would guess it's been with us for a while, because my book is structured around paintings that tell the story by Thomas Cole, the American landscape painter. In a masterpiece called the *Voyage of Life*, he portrayed this very process very accurately in 1840. Dante's *Inferno* begins with the words—I won't quote this exactly, but it was something like, "Midway through the voyage of life, I found myself lost in the dark wood." There's been human knowledge about this pattern for a long time. What we're learning now is how fundamental it is and what's going on, and, importantly, for most people most of the time, it's not a crisis.

It's not disruptive. It's not alarming. It's not pathological. It's none of those things.

Brian: Great. There's so much more to get to. As we promised our listeners, we want to talk a little bit about moving beyond some of the struggles we've talked about up to this point—there's this surprising twist of the upward trajectory that might happen after 50.

Today we're talking with Jonathan Rauch of the Brookings Institution and *The Atlantic* about his compelling new book, *The Happiness Curve*. Jonathan, I promised our listeners that the story gets better after 50. You referred to that a little bit already in the first half of our discussion. What have you found and described about life after 50 in terms of satisfaction, happiness, and the prospects that we might face there?

Jonathan: Brian, there were two really big surprises for me in researching this book. The first that the midlife slump, or midlife crisis, or whatever you want to call it, is very often literally about nothing. It can be a self-speeding emotional spiral. It's not really caused by your life at all. The second thing, which almost no one believes at first when you tell them, is that on average, and for most people, the most rewarding and satisfying period of life is the

end, by which I mean the later decades of adulthood. For most people, the emotional peak of life is not until their 60s or 70s, or in some cases, even beyond.

The stereotype we have of kind of a lonely, cranky, and decrepit old age, and a time of emotional decline, is the opposite of the truth.

Brian: It's really fascinating. Here's a spot where I'm really intrigued by the kind of dinner conversations you have with people that maybe are a bit more cynical and that raise concerns or objections. There's just this simple tension between what you're talking about and the deeper concerns that might arise when you look at the simple decline in the amount of time you have left on Earth and what challenges that might bring for you philosophically. When those conversations turn dark like that, is it really more a matter of you turning to the empirical evidence, or how do you counter that popular culture sense that we share?

Has that been surprising for you too, in terms of when you investigated this to start out the book? Is that something you were intrigued to learn?

Jonathan: I was intrigued and surprised. I grew up with a father who dreaded getting old. I took for granted that aging is a process of decline and loss. Turns out, it's not true. Adult development and growth continue right up to the end of life. That's way I explain it to people or explain it to myself—my own breakthrough was when I understood. The trick is, as we age, our values change more quickly than our bodies. It is true that we experience physical decline, but we also experience cognitive change—it's not just decline.

We also experience changes in our values precisely because our time horizon is changing, where we focus more on the things that matter more—we focus more on people. It might be your grandchildren, or it might be your volunteer projects. You get less interested in climbing the greasy pole and checking off all the boxes and the goals that you might not have met. That reorientation turns out to be very fulfilling. I interviewed dozens of people for my book, and I surveyed hundreds. What I found was completely consistent with what everyone else has done.

People in their 60s, 70s, and even 80s are happier than people in their 20s, and they don't even want to go back.

Brian: I wonder if part of what's happened, or from a popular culture standpoint, is that—there's a couple things, I suppose, in terms of thinking about who the typical audiences are for content. Then, maybe that explains

some of this ignorance about this later stage, but maybe we've forgotten how to celebrate retirement. Maybe I'm wrong on this, but it seems like there's a time that wasn't too long ago when we would celebrate the pleasures of retirement. Or you look to some cultures around the world in which old age is this venerated time.

When you look at the way pop culture talks about this, has it always been the moment we're in, or do you have a sense that at times that's varied, and that we've done a better job of actually understanding the basic principles in your book? Whether it was based on empirical data or not, but at other points or in other cultures, what do you think about that?

Jonathan: What we're talking about today, Brian, is kind of new in the entire history of humanity. It's not altogether new, but kind of new, because, of course, until fairly recently, people tended to die younger. Even if you made it to age 20, you were probably still going to die in your 60s, and plus, you were not going to have the luxury of retirement. Retirement was a concept basically invented in the 1930s and '40s. The notion that came along much more recently, well, here's how it works—you're still not living all that long, but you probably won't have to work your whole life.

Then you're going to have 5 or 10 years of doing nothing. You're going to go out on the pasture, eat grass, and then drop dead—be marginalized in society. That became the notion of retirement, which we had for a few decades. It's already going away, because now people are living healthfully with a lot of vitality well into their 80s, and that's going to expand over time. We're talking now about 100-year life spans for many people, and most of that will be healthy time.

This is additional time in the most satisfying prosocial part of life. These are not folks who want to crawl under a rock and not contribute. These are folks who want to give back—they want to teach, mentor, volunteer, be with the grandkids, or be with young people. This is such good news for society. This is a huge untapped resource that we're developing now. I predict that with this notion of retirement, per se, in two generations, we'll have moved past it. We'll instead have what people now maybe call "encore adulthood"— second careers, repurposing.

Brian: You're actually opening up an interesting, different possibility that given an extra 5, 10, or 15 years of this realization and value shift, you actually might see a discernible impact on the collective decisions that people make—is that where you're headed, with maybe some of the conclusion here?

Jonathan: Yes, for sure. You're already seeing that. Actually, that's one of the things I wrote about with a support group called The Transition Network, where it's really a peer group, not an emotional health group. But it's for women in their 50s, 60s, and beyond, who are remodeling their lives. Their kids may have grown up, their careers may have shifted, or their values have shifted. We're already seeing institutions of higher learning that are putting more emphasis on people in midlife, retooling, and retraining going back to school. We're seeing talk about gap years for people in their 50s and 60s—there are just all kinds of ideas, and they're actually starting up out there.

The big obstacle, and you won't be surprised to hear this, is our government institutions are basically still stuck in the '30s and '40s; if you retire at age 50, you draw a pension, but in time, even that will change. What's already happening is, these social patterns and the institutional patterns of how we think about aging are starting to shift. And I think it's the greatest gift humanity has ever been offered—these additional years and the ability to help each other exploit them.

Brian: Well, speaking of gifts, you've also mentioned that there might be some effect that occurs, even just by virtue of people being aware of this. Just people talking about this possibility seems to provide a boost in some way. I'm interested in that—am I understanding that correctly?

Jonathan: Yes, you are. I mentioned the first real surprise for me about doing this book, which is that the midlife slump is often literally about nothing. Well, how can that be? That's what happened to me, actually. I felt disappointed in my late 30s—I'd achieved my goals, but they weren't as fulfilling as I expected. I started thinking about all the things I hadn't done. That made me feel ungrateful and unhappy, so then I started getting alarmed and thinking, "Oh, my God, am I depressed? Do I need psychiatric help? Am I going to be cranky for the rest of my life?"

That made me even more scared—the thing starts to feed on itself. When scientists do the math, they discover it's entirely possible, and probably very common, for people to talk themselves into this kind of slump. They make it worse cognitively by dwelling on this bad thing that seems to be happening to them. Just knowing what's going on provides a lot of relief because it says, "You know what, I'm totally normal. There's nothing wrong with me. This is a standard transition in life with a payoff at the end."

The second thing that's very helpful is not getting isolated. I was ashamed that I was doing so well in life, yet I was feeling so low about it, I didn't tell

anyone, I didn't even tell my husband. That makes it far worse: the isolation creates more loneliness and anxiety, and these things feed each other. Telling yourself and just knowing that this is normal is a big help, and being able to tell others and having support from society is even more helpful. We don't do that now. The way we deal with this now is we joke about it—we mock, "Oh, Brian must be having his midlife crisis, when are you going to get that sports car?"

We're talking about midlife crisis, and it's alarming—there's something wrong with you, you're going to lose your career, you're going to quit your marriage and leave your kids. All of that makes it much worse. What we need to be doing is helping each other through this transition—understanding it's normal and natural and part of life and treating it that way.

Brian: You raise, I think, what's a crucial example or observation about just how we understand life and the life span—you've written about this before, in a couple of places. It's the emergence and the whole phenomenon of adolescence as something that didn't really exist in all of our history—not that we invented it, but we discovered it, and now we should talk about that as a time and a stage in life. It seems like you're moving toward maybe advocating for us understanding this as a similar chapter. If we did in that way, we'd still probably joke about a little bit, but with much more of a sense of empathy. Is that fair to say?

Jonathan: Yes—a lot more sense of empathy, a sense of normalcy, and most importantly, a lot of social channels to help people through it. Think about all the things we do for adolescents who are going through a normal transition. For some people, it's absolutely great they have no problems. For other people, it can be very rough, but think about between the schools and the churches, and the scouts, parents, and community. Think about how much support and different channels we give adolescents to get through this and we tell them, "There's nothing wrong with you, we've been there ourselves."

Think about how much that helped you when you were a teenager. Now think about if we did something remotely like that for people in middle age—if we understood that middle age is not a time of maximum emotional mastery, but it's more likely to be a time of emotional vulnerability, and that that's nothing to be ashamed of. You don't have to be a master of the universe emotionally at age 45 just because you're the CEO of a company. Understanding that will mean we can give each other the support that we

need, and that makes it a lot better. Midlife should not be a DIY project, and unfortunately, right now, it pretty much is.

Brian: And if you think about it, we're able to provide that guidance to adolescents in saying, "Well, we've been there before." Now, there's an interesting twist here, and this new empowerment or generation of folks, as they get older, might be able to turn back to us and tell us that, partly because of this renewed sense of optimism. It seems like an optimistic new view you have of a path ahead, and that's a great gift to all of us, Jonathan. We're just about out of time, but I want to thank you so much for sharing some of your insights and your thoughts all about *The Happiness Curve*, a new book that's available now. Thank you so much for calling in.

Jonathan: Thank you.

Implications for Researchers

- Engrained cultural beliefs about the arc and trajectory of human life are not always consistent with empirical evidence.

- Looking at large-scale data sets can suggest patterns that run counter to some perceptions of how humans age, and that macrolevel perspective can offer hope to individual people.

Suggested Reading

Rauch, J. (2018). *The happiness curve: Why life gets better after 50.* Thomas Dunne Books.

End-of-Life Care (2015)

Realizing that life continues even beyond any one person's experience can be a deeply bewildering perspective. Humans spend a lot of their time trying to make sense of that. Along the way, our realization that our own lives eventually cease leads us to sometimes overlook the opportunity we might have to live well and also to die well. Using research to ensure dignity in the end of one's life passage is a theme in this episode, which features Laura Hanson of the University of North Carolina at Chapel Hill and Franzi Rokoske of RTI International.

Brian Southwell: This is really a crucially important topic, and we're honored to have two experts here to talk with us about it. Now, given this is an area

that many people can relate to, but it's also one that involves some degree of technical expertise, we often are striving on the show to demystify key phrases and words, and I think we've got an opportunity to do that here today, even upfront. Laura, could you explain for our listeners, for example, the main differences between hospice and palliative care? I know we can characterize the two somewhat in terms of place, but are there other important distinctions?

Laura Hanson: Sure, Brian. I do this every day in my daily work. We walk into a patient's hospital room, and our team introduces ourselves as the palliative care team. Right after that, we have to explain the term "palliative care," because we want to make sure that people don't misunderstand that term. Palliative care is one of the newest fields in American medicine, and it is the best supportive care for patients with serious illnesses and their families, focusing on symptom management and on helping people with complex treatment decisions. Hospice is a subset of palliative care, and hospice is community-based care for patients who want palliative care at the end of their lives.

Brian: That's a really important set of distinctions, and we'll come back to some of that. I think in some ways, the emergence of palliative care—as a field, as an area, and as an option—says something about how health care has evolved and changed, particularly in the United States; is that fair to say? How has end-of-life care itself changed in recent decades, Laura?

Laura: It has changed a lot, and even in my career, in medical practice, I've watched it change, but some of your older listeners, I think, will themselves really understand the change. If we kind of step back and think about where Americans have experienced the end of life in the last several decades, until the 1950s, almost everyone died at home. Beginning in around the 1950s or '60s, people started to migrate to hospitals for end-of-life care. That peaked in the '80s and '90s, when about 50% of Americans spent their final hours and final days in a hospital bed, with many of them in an intensive care unit (ICU) bed connected to a ventilator. There's been pushback, and palliative care is part of that pushback.

   People started to recognize that maybe that wasn't what everyone wanted. That has resulted in both shifts in medical care services, inclusive of the expansion of hospice and palliative care, and a grassroots movement with people saying, "I really want something different, either for myself or for my

mother who is seriously ill. She knows she is near the end of life and really wants to be at home, not in an ICU hooked up to a ventilator."

Now, only about a quarter of Americans experience that at the end of life, and probably the most important difference is that we have choices—what people say and what people talk about with their doctors will actually influence what that final phase of illness will look like.

Brian: That's an excellent point. In some ways, it seems as though the pendulum is kind of swinging back and forth a little bit. Something we've all collectively started to realize is that each chapter in life has a sanctity to it, and that we've long thought about birth and sort of the options around that. But now, maybe we're realizing that this is also similarly sacred, if you will, or a chapter that we ought to be paying more respect to.

With this description of how things have evolved in the United States, it begs the question of, thinking about the globe and international comparisons. Franzi, I'm curious about how the typical end of life in the United States compares with that around the world. What can you tell us about end of life around the globe?

Franzi Rokoske: Our project isn't particularly focused on the international end-of-life experience, and I'm not an expert in that particular arena, but there are some very important differences, some of which Laura just alluded to. The US hospice really does differ from hospice in the United Kingdom, Australia, and other Western European countries in several important ways. One of the things, of course, is the intensity of medical services that the US population tends to receive at the end of life, and it is far greater than care for similar kinds of patients in other countries.

The other thing is that the Dartmouth Atlas Project has shown a lot of variation in end-of-life care within the United States based on geography, for example. So, access to regional medical centers like Duke and UNC may predispose people to receiving care that people are not necessarily receiving in other countries, even developed countries. Then, another unique feature of US hospice is that here, the hospice care is offered as a benefit of Medicare. What this sets up is essentially a situation in which patients have to actively choose the Medicare benefit to receive hospice services, and this is not the case in other countries.

Brian: Okay. It's really helpful in terms of context. Now, in terms of an area that is squarely within your expertise, Franzi, there's the whole notion of

measurement and measuring quality of care. That's something we'd like to talk about here, and measurement is often a really difficult task. I wonder, is it the case that folks—professionals working in these settings—find it easy to report? What are some of the challenges you face? What are some lessons you've learned in trying to measure differences in the quality of end-of-life care that people receive?

Franzi: This is a really great topic, because, of course, I'm very interested in measurement and have actually been working on developing measures with Laura since 2007.

Laura: Right.

Franzi: We're kind of obsessed with this arena. I think one of the things that is interesting about this work is that the concept of measuring particularly quality of care is really difficult. I mean, there are things that are easier to measure, and then there are things that are harder to measure. I think that quality of care for hospice and palliative care patients is especially difficult because, as Laura already just mentioned before, hospice and palliative medicine services are directed at the patient and the family. So, first of all, the unit that you're measuring is a unit of two people or more.

That's different than if we're looking at, say, an infection measure for postsurgical patients—how many of them got some kind of infection after surgery. So, it's complicated both by the fact that the unit of measurement is complex and that the things we're actually concerned about with respect to quality of care—for patients who are dying or who have a life-limiting prognosis—are different from the things we're concerned about in other health-care settings. So, it sets up this very interesting, I think, conundrum and challenge for us, because hospice and palliative care provision is an art and a science. And focusing only on measuring the things that are easy to measure leads to a very lopsided representation of quality of care for hospice. The things that are important about hospice—and quality of care of hospice and palliative care, too—are things that are maybe more subjective and difficult to assign a score to.

Brian: What I love about that is that you remind us of the philosophical need for motivation for measurement in the first place—for us to make sure that we're tapping into or getting indicators of things that we care about. What a great vantage point to think about some of the ethical variability or just the considerations in this area.

Laura: Brian, if you don't mind, if I could add to that, what it calls to mind for me is one of the first projects I worked on in this area. I was talking with a statistician, and he was used to projects where survival rates and keeping people alive were the end-all and be-all of measurement. I said, "We're going to measure good death," and he looked at me cross-eyed and said, "What do you mean?" I said, "That's the challenge."

Brian: Well, that really is a challenge—just the fact that it hadn't even been thought about by folks. That also, I think, raises one quick point that we might touch on before we go to a break, which is just this notion that we may not have consistent measurement over time, because these decisions have evolved. It's probably the case that it makes it challenging for us to have a baseline, even to know what life was like in the '70s or '80s. Is that fair to say?

Laura: Yes, I think it is. I think we know that as well because what we're concerned about is giving people the type of care that matches their preferences and values—even the values that we hold as individuals or as a society shifts over time.

Brian: Today, we're talking about death—or, more importantly, about the end of life—as a distinct chapter through which we all pass. We're spending time with renowned physician Laura Hanson, and quality of health-care researcher Franzi Rokoske. In the first part of our show, we opened up and talked about the emergence of palliative care and hospice care. This is a landscape that, for a variety of reasons, has gotten kind of complicated, particularly in the United States.

We've seen, for example, the rise of for-profit hospice organizations. That landscape, I imagine, can be bewildering for patients and their families. *The Washington Post* set up a searchable consumer guide to hospices, for example. What else might we be able to do to provide more information to patients and their families? How can we be helping? Franzi, what do you think?

Franzi: It's a really crucial area, as people do start to become aware of options for care when they have a life-limiting disease, and especially as they approach the end of their lives. They have the ability to obtain information about services that can be accessed and how, and from what organizations, I think it's becoming more important. It's this particular need that *The Washington Post* has responded to by making some information available. Consumers now may be aware that you can look up hospitals. For example,

there's the Centers for Medicare & Medicaid Services website, Hospital Compare, and Nursing Home Compare.

What we're working on now are the underpinnings of what will eventually be Hospice Compare, allowing consumers to select hospices in their regions and compare them in terms of important characteristics of the organizations, as well as characteristics of the quality of the services they provide. The hard thing is that until we have enough actual data from all hospice providers nationwide, we can't create that searchable database, and that's what we're working on.

Brian: It all goes back to the importance of measurement.

Franzi: That's right.

Brian: That's great. Well, in the second half of the show, I'd like to ask each of you to also share some personal thoughts—professionally, the experiences you've had. In the introduction of the show, Laura, I mentioned your award-winning book. In it, you include an exercise for nursing home staff that I'd actually like you and Franzi to engage in, if you don't mind. I'm putting you on the spot here a little bit. For you and your coauthors, this is the exercise, and I'll set that up—connect with your heart and recall memories of a good death that you've witnessed and what made it so. I'd like to invite Laura first. Can you tell us about an instance or two that seem to qualify?

Laura: I want to be just a little contrarian, because every time I do that exercise with other people, a bad death comes to my mind. It is one of the sentinel events that got me started in this field. I was a medical student in Boston, and I witnessed the care of a woman with advanced cancer, who for religious reasons had avoided doctors for a very, very long time, until her husband in desperation brought her to our hospital. She was in our ICU for her final days, connected to a ventilator, in pain, and suffering.

The doctors and nurses were well aware they could not save her life. What really struck me was two things. One was, no one talked to her or her husband about that truth. The other thing was that her faith was what kept her out of the hospital. She and her husband had violated their religious values to come to our hospital, and no one was there to talk to them about their spiritual needs. That death makes me angry, and it's something I never want to see happen to anyone else. It motivates me to be part of this work.

Brian: You can definitely see that connection, and you're honoring her legacy with what you're doing. I appreciate you sharing that, Franzi. Maybe then, do you have a counterbalancing example to think about the good death?

Franzi: Yes, I actually do. I was a clinician, and I also was a physical therapist. One of the things that surprised me in my first job was that I would witness and even attend deaths. I had nothing in my curriculum and training to prepare me for that experience, but it was not very long into my first job that I had a patient in the ICU, who also had a lung transplant and cystic fibrosis, and that lung transplant was failing. It was clear that she was nearing the end of her life.

In contrast to what Laura just explained, with this family, we saw the best of communication between the physicians, the family, and the patient about, "We could try a second lung transplant, but the likelihood that you'll survive it is very, very slim." The decision, which was a very well-thought-out and emotional decision, was made. The patient ultimately died in the ICU but died what I would say was a very good death, because it was accepted and discussed and the patient and family preferences were definitely elicited and adhered to.

Brian: Those are both really compelling examples. You have my admiration for being able to do the work that you do alongside those powerful instances. I imagine some listeners, in hearing me even raise the notion of a "good" and "bad" death, are probably sitting there thinking, "Gosh, it's all relative." There probably are a lot of factors that go into that. I think an important lesson for all of us is that people vary in what they think about what's an ideal death. Culture varies, personality varies. This seems related. Laura, I'm wondering whether you can tell us about an example of dimensions that seem to vary dramatically, maybe from what we've heard already, or something that helps us show us the range, just to remind us of that?

Laura: Absolutely. In the United States, obviously, we're an incredibly diverse society, and we have to take that into account. In palliative care, our gold standard for a good death is matching the care a patient receives to their preferences and values. Obviously, that's individually determined, and it's culturally determined. A couple of patients immediately come to mind for me.

We see a lot of African American patients who do wish for more aggressive efforts to prolong life, who value struggle, and who are willing to face some

pretty extraordinary circumstances to fight for life. The good news is, on average in the United States, African Americans receive that more aggressive life-sustaining treatment, and that's the way it should be. It should be matched. With another patient who comes to mind, I remember how confounded we were.

We saw a gentleman from Iraq, from a traditional Middle Eastern culture, whose wife was always at the bedside. We repeatedly tried to engage her in decision-making about his care, and she repeatedly rebuffed us. It took us days to understand that the right decision-maker for him was his eldest son. That was culturally determined, but we were happy to honor it once we understood.

Brian: The people you work with are so lucky to have folks recognizing that. That's not always the case. So, that is extremely useful in just helping us define and even think about what counts as a good death. In light of everything we've discussed today, I also imagine listeners would agree there's a lot left to be done in terms of work and research. We talk about social science research on this show. What are the big unanswered questions for researchers specifically, and where can social science help us go next on this topic? Franzi, do you have a thought on that?

Franzi: Yes. There's a lot of work to do. Laura Hanson and I will probably spend the remainder of our lives working on this [laughs]. One of the things that Laura and I have both said several times today is that the best care is care that matches the patient and family preferences and meets the patient and family where they want to be with respect to their care.

I think that that's a really important piece, and there are some things that are changing in our health care now in terms of Medicare paying for those discussions and paying physicians. But one of the things that's foremost in both of our minds is, "What is the quality of some of those discussions?" I think that that's an important next step—for us to really be able to make sure those discussions elicit preferences, to be able to match care to preferences, and, therefore, to produce the highest quality of care. It's a crucial foundation.

Brian: And it's something we don't spend nearly enough time on. We think about discussion as kind of a means to an end, but it's really important to realize that itself is something that can vary in quality. It's not just something you check a box that "yes, we talked to them about this," but that itself can vary. Laura, any other last thoughts in that regard?

Laura: I completely agree with the emphasis on enhanced communication—it's clearly a big need. I think the other big need is innovative models of care for people with serious illnesses. The hospice component of palliative care is one model. It was really built around cancer care, with the idea that people would be actively dying for several weeks and then die quietly and peacefully at home.

But we now see lots of people with serious illness for whom that's not a great fit. I think we need new models of care for people with advanced dementia, advanced lung disease, or heart failure. We're actively trying to create those models, but it's going to be a while before they're really available to everyone.

Brian: That's interesting, because it suggests that with changing demographics in the country—but also just different changes in terms of burden of disease—what is killing us changes. So, we may need different models to kind of catch up with that. Is that fair to say?

Laura: I think that's absolutely right.

Brian: All right. On some level, you do have a lifetime of work ahead of you, just because that itself is going to change in coming decades, to keep you on top of that. Is it your sense that students working in these areas now are well-equipped for these questions? Are we doing enough to meet them and engage in that? Do you have thoughts about that?

Laura: I think we're beginning to catch up on some of the educational needs. At least I can speak to the health profession arena. There's tremendous demand. It's actually kind of exciting as a professor, who works in the areas of both geriatrics and palliative care, that we're really seeing an explosion of demand among learners. We as faculty are really working hard to keep up with that demand, but I think people realize that these are essential to the health care of the future.

Franzi: I think the thing that I would bring in here, too, is that we've been talking mostly about palliative and hospice care in the setting of a medical environment, but the emergence of also palliative and end-of-life care in community-based settings is another arena for the future.

Brian: That brings up different complications, I imagine too, in working with community groups, but it's going to be necessary to reflect on this move away from just hospital and health-care settings, if we really are going to allow

people to be in communities and in their homes—finding out how to work alongside them in those places. There's just tremendous work to be done in these areas. Well, this has really been a wonderful conversation, overall. There's so much we could talk about. I really appreciate you both opening up to talk about that. We're just about out of time today, but I just want to thank each of you. Laura, thank you so much for sharing part of your story with us here today.

Laura: Thank you.

Brian: Franzi, thank you as well. I really appreciate you spending time here. You had a very different perspective and allowed us to put a plug in for measurement. So, thank you for that. Thanks for being here.

Franzi: Thanks. It was my pleasure.

Implications for Researchers

- Social scientists might shy away from investigating end-of-life dynamics in favor of research that explores early-life factors or that traces whole-life trajectory. The last chapter of life offers a rich set of questions and considerations, however, which involve important questions about human dignity and agency, and which also hold implications for people connected to those who are in the process of dying.

- End-of-life research can help to increase and preserve dignity for people and their families, but to do so requires that we find ways to interview people during that chapter and creatively ask questions about what people understand and prefer during the last period of their lives.

Suggested Reading

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The Science of Hope (2021)

The last interview in our book highlights research related to hope. The episode features Christian Waugh, a psychology professor at Wake Forest University, who has explored the effects of anticipation and positive emotion on mental health outcomes. Reflecting on empirical research with human beings can offer a chance to consider philosophical questions, as this interview suggests. The process of research often draws on past insight to look ahead to new questions, and this discussion suggests that such looking ahead can be beneficial for all of us to do.

Brian Southwell: Christian, it hasn't been difficult to find explicit references to hope—either cause for it or lament about our lack of it—in news headlines recently. Today, though, I want to take a step back here, because to really understand how humans experience and maybe even use hope, it seems as though we need to consider how it is that people experience different phenomena, such as time and stress.

These are all things that you've had some time to think about and investigate. We often talk in terms of a past, present, and future, regardless of what physics researchers might say about that. What do we know about the ways in which people tend to experience time? What can we say about our capabilities of looking ahead to our future or understanding our past?

Christian Waugh: Absolutely. One way to think about time perception is long term versus short term. You can think about this in both directions from the present. Something happens to you today, and then you're thinking about it tomorrow—that's now a long-term memory, and those memories get encoded in our brains and then shipped off to a part of the brain that they're represented in. Maybe it's like a visual memory, thinking about a flower that you saw or whatever. And then there's more short-term memory—thinking maybe about a phone number that someone just gave you, although we don't really have to do that anymore with our smartphones. Those are two different forms of memory from the past, and that's our time perception, but it's

actually the same thing for the future. Our brains are prediction machines, meaning that we are always trying to predict what's going to happen next, with as close to accuracy as possible. Then, when that thing either happens or not, we adjust our estimates and go, "All right, am I surprised or not?" This is why one of the cool tasks you can do for people is if you're clapping, for example, in a steady stream, and then if you have a clap that's really much louder than the previous ones, people are a little bit surprised by it. It's because they've come to expect it, so they're very short-term predictions of what's happening in the future. Then, you have the long-term version, which is these simulations of what's going to happen in the much more distant future. What's really interesting is that these longer-term simulations and these short-term predictions can be at odds sometimes.

There is this popular thing researchers study, which is called temporal discounting. It's the idea that if I said, "would you rather have $10 right now or $50 in a year?" you have to do a little bit of math. You say, "What's the worth of the $10 now or the $50 in the future?" If you think of them as equally valuable, then you've discounted this thing that's happening in the distant future. Our ability to perceive time in both directions consists of these long-term and short-term components.

Brian: It's really helpful just to think about the ways our brains are set up to do this. It's really a part of our everyday existence. We exist in relationships in the sense of time. You and your coauthors have used a word here that has common everyday meaning, but I think it also matters in terms of the phenomenon that we're thinking about here—you've used the word "anticipate" in describing how much people might look ahead. We might think about this biologically or psychologically. What does it really mean for someone to anticipate something happening? You talked about that just a moment ago in terms of prediction, but maybe you could unpack that a little bit further.

Christian: Absolutely. When we're looking forward to something or anticipating something, essentially what we're doing is conjuring up a mental representation of that event, that person, that goal, or whatever it is. Then, we're simulating what we think it's going to be like. This simulation of what we think it's going to be like actually shares a lot of commonality with our memories of the past. In fact, if you look at neuroimaging studies, simulating an event in the future and thinking about an event in the past use a lot of the same brain regions, so prospection and retrospection also share a lot of the same brain regions.

That makes a lot of sense, right? When you think about what your future is going to be, you base it on what you currently know about. When we think about anticipation, it's essentially holding in mind this moment and a simulation of a possible future event, and that simulation can take lots of different forms. It can be a vivid visual or multimodal one, where you close your eyes and envision yourself finishing the race ahead of everybody else. It can be a little bit more semantic, like linguistics and where we think about ideas—like, in the future, I want to have kids or a dream job or whatever. So, they're different forms of anticipation.

Brian: At some level, we might almost think about this maybe overly simplistically, but we have this capacity for almost imagining memories. But there's this possibility we also have capacity for engaging in a real way in our minds with some sense of the future. It seems as though that capacity has implications for our health and well-being. This is something that you and your colleagues have started to look at. We often talk about the impacts of anxiety and worry, but you've also noted some positive aspects of anticipation. I want to talk a little bit about that. Can you explain to our listeners some of what you found in terms of anticipation of positive events and effects on stress, for example?

Christian: Absolutely. Our general idea was, we're looking at ways of how someone could recover from a stressor or adapt to a stressor strategically, because a lot of the previous research has shown that if you give somebody a positive stimulus or events right when they're done with the stressor, it helps them recover more quickly. But we got to thinking that's not how life works. You're not walking around with a pack of gum in your pocket, and just in case something happens, then you could pop the gum in and feel better. Maybe it's like that a little bit, but that's not generally how it works.

We're looking at something a little bit more useful. We're thinking one really cool thing about positive anticipation—or the anticipation of a future positive event—is that you can draw on that positive anticipation at any time. If I'm looking forward to playing golf this weekend, and if I'm having a particular stressful moment right now, I can draw on that positive anticipation—at least I'm playing golf this weekend, and I can think about that all the way up until the event itself. It's a cool long-lasting reservoir for potential positive emotion.

What's cool about anticipation, especially with humans, is that if we simulate these events well enough, really vividly, and really think about them

concretely, the simulations can give us those same emotions that we would expect that event to give us in the first place. This is why we get excited about a future date or about something that we're really looking forward to. We're thinking there are those positive emotions you can draw on. Can those help us recover from stress? We've shown that they can. In one particular study, for example, we had people sample some cartoons—some were funny, and some weren't. We said, "All right, in one group, you're going to see these funny cartoons later at the end of the experiment." So, it was giving them something positive to look forward to.

In the other group, they were going to see these ones that weren't funny. That's sort of like, "Meh, there's nothing really positive to look forward to." Then we gave all the participants a stressor: "We want you to give a speech on why you're a good friend and be authentic, and we're going to judge you"—really a stressor. Then afterward, it was, "All right, that's done." What we found was that people who were anticipating this positive event did get a little bit stressed while the stressor was happening, but as soon as the stressor was over, they recovered more quickly because they were able to reorient their attention to the future, and in that moment, that future thing looked positive.

Brian: That's incredible. It would suggest, then, actually, that there's some usefulness in allowing for vivid daydreaming or for people elaborating on and focusing on a positive event, rather than necessarily being wasteful or inefficient. Does that seem to be the case? The richer the sense of the future, or the more salient it is, the more impact you might see?

Christian: Absolutely. There are two caveats to that, which are really, really important. The first one is, it shouldn't really be at the expense of what's happening now, right? If I'm hurtling down the highway at 80 mph, and I'm so visually enraptured by this thought of what's going to happen tonight, then that can be problematic, right?

Brian: Right.

Christian: The other caveat is that sometimes—and this works with both good and bad anticipation, and positive and negative anticipation—when we anticipate something in the future, we tend to overly focus on just the parts of it that make it emotional, while ignoring everything else about it. This is called affective forecasting, and it's this interesting bias that we have. If I imagine this meal I'm going to have in two days, and I only think about the

yumminess of the food I'm going to eat, a lot of times my anticipation of it is more evocative than when I actually sit down to the meal.

Because when I sit down to the meal, there's all this other stuff happening. Maybe I had a tough time parking, or maybe the waiter or waitress is a little bit slower, or that kind of thing. We ignore that. Yes, get into it, visualize it, and let it become rich, but you also should sit back and understand that you need to be in the present moment sometimes, and also understand that sometimes, these anticipations can be a little bit more than what is actually going to happen. Now, I think that's not a big deal, to be perfectly honest with you, except for when it becomes unrealistic, and we base a lot of our well-being and goals on it.

Brian: Right. It's an interesting way to think about some of that potential for disappointment, though, too, because it may actually be that the positive signal you're hoping for from it is there, but there's a larger context you're ignoring, rather than it being that it didn't actually come true. There's just a quick minute here before the break. I'm just curious about your sense of whether there's a lot of human variability in this capacity for anticipation for the future? Are there lots of situations in which people's sense of a future itself has been inhibited?

Christian: Yes, there's absolutely variability. There's both normal and abnormal variability. A lot of what we're talking about is that these abilities are housed in the connectivity between the prefrontal cortex and the front part of our brain and some of these memory regions. If people have neurological damage, that can really upset this ability to tell time, and there are also individual differences in people's temporal distances, whether they're planning for tomorrow or whether they're able to plan for 5 or 10 years down the road. That can have a lot a lot of impact on how they're able to enact and follow through with long-term goals, as you can imagine.

Brian: Christian, in some ways we're talking about what we might think of as the science of hope. We've talked in general ways about the effects of anticipating positive events. I'm curious here—we talked a little bit before the break in terms of individual differences and experiences of time and being able to forecast.

I'm curious whether these effects of anticipation also might vary, or whether there might be some differences in which people don't experience these effects in the same ways. Are there situational circumstances where

some of this gets muted, or where the impact of positive anticipation is really just not what you might expect it to be?

Christian: Yes, going on the individual difference comment, as we finished within the last segment, people just have different timescales along which they think about the future. People who tend to be more impulsive tend to think in smaller timescales and people who are more conscientious think in a little bit longer time scales. As far as the situational constraints of this, it's really, really important. We talked about the importance of being present-minded, for example. One of the things that's really important is the balance, I would say, between the positive and the negative in what you're anticipating.

One really, really important part of resilience, for example, and adapting to stressors, is to be able to properly balance the positive and negative and not solely focus on one or the other. I might be positively anticipating a dinner tomorrow night. If I'm not able to balance the positive and negative, and if I start having a thought about "what if this and this happens, maybe they're not going to find me interesting," then that can go off the rails really, really quickly. And all of a sudden, this positive event turns into a potentially negative or anxiety-provoking event, which is not going to be good for having resilience.

On the other hand, if I'm positively anticipating something, and I just absolutely ignore all the negative aspects of it and say "this is going to be amazing, there's nothing bad that could possibly happen here," then I might not prepare for those things that would end up actually mitigating those negative aspects, if I'm not even thinking about it. Imagine having too much confidence about taking a test. I deal with students all the time. They say, "I'm going to crush it. There are absolutely no worries. It's going to be amazing." That can actually hamper their ability to prepare for the test and crush it for real.

It really is about that balance of positive and negative, and people are going to very much differ in the degree to which they allow that balance occur. That's really the height of resilience, I think, versus really focusing on one or the other.

Brian: I'm curious here, too, in terms of a life span perspective. A lot has been made of differences, for example, between adolescents and people at an older age. I'm just curious whether any of that manifests itself in the timescale, as you talk about. Is it the case that at certain stages in life, perhaps we are more

motivated, or there's a bigger impact of what's going to happen tomorrow or this weekend, as opposed to thinking about a year from now? Is there any evidence in that regard, or what do you think?

Christian: Yes, absolutely. There's one really cool finding in the life span literature that shows older adults tend to be more positive than younger adults. For a long time, they were trying to figure out why might this be the case. It's exactly what you described—it turns out that's the case because younger adults are just worried about more. Their whole lives are in front of them, so there's a lot of weight given to any decision they make. They think, "If I go to this school versus this school, that could drastically alter the next 70 years of my life." But those same concerns aren't really there for older adults. They've been through it. They have a temperate understanding of how things work out or not—that there's really not much left to necessarily really worry about. They tend to give over a little bit more to positivity and reflection and stuff like that.

Brian: That's helpful to hear that. We've talked on the show about aging before, and I think people have a tendency to assume it's all downhill, but actually at the end there seems to be a bit of an upward turn, and some of that has to do with exactly what you're talking about. I'm curious here, Christian, as you think about your own future as a researcher, what are some of the most important unanswered questions that we face about our experiences with time, emotion, anticipation, or how all this fits together? What don't we know yet that you'd like us to know more about?

Christian: Absolutely. Basically, you said it in your question, which is how it all fits together, because a lot of what we study tends to be in isolation when we're first trying to figure it out. You have these very controlled experiments, and you look at this one aspect of time in six different studies, or six different ways, and that's your experiment, but it's a really, really narrow construct.

Right now, we're really trying to get a better idea of how it all fits together—how does the past influence the future? One of the things that we're really interested in now is more actively making your future better, especially given current circumstances. One of the other things we're really interested in is emotion regulation—how people regulate their emotions and stressors. One of the ways people do it is by reframing events, maybe by saying, "I'm sure she didn't mean it that way, she was just angry because of this other thing," to make ourselves feel better.

What we think about now is that when people do this with regard to the future, it may be a particularly powerful way of regulating stress and being resilient. Things aren't good now, like in a pandemic, but in the future they will be. That's that connection that we're just talking about, just positive anticipation, but we're actually lassoing positive anticipation and using it actively as a strategy to make ourselves feel better about what's happening now.

Brian: I want to talk more about that specifically, in the context of the year that we've had in the United States. But before I get to that point, you noted something that I think is really quite compelling, and it's worth some more comment. In the twenty-first century, academic researchers have often had incentive to focus on a particular line of research in a narrow area, and it's important because you get deep expertise in a particular relationship between a couple of variables, but at the same time, you miss the opportunity to connect more broadly.

I'm just curious whether you've had ideas or thoughts about how we could encourage more global discussion to put it all together, if you will, or if you're seeing more of a move toward an allowance for that on campuses or at conferences—to really think in a more interdisciplinary way, not just to pay lip service to it, but to think about more theories of general well-being or that allow us to connect these different dots. What's your sense of that?

Christian: I think there is, because what ends up happening is, in any given field of science, you start off with all these separate observations of things. In physics, for example, 150 years ago, you had, "Light seems to do this interesting thing, and apples fall from trees in this way, and this and that." Then you have all these observations for years and years, and once those mature and people realize that they're probably pretty true that allows you to get these more holistic and integrative theories about what's happening.

I think in psychology and neuroscience, we are starting to get there, but we're still a little way off, because there's a lot of mystery about what the brain does. There are attempts to do that—the Human Connectome Project, for example, is bringing in research from all over the place to really look at the brain as a whole and how all the parts are connected to each other. But still, the issue is in publishing, people tend to really like specific, replicable results, so there's that little bit of tension there. I personally really love interdisciplinary work. In fact, last month I was part of an interdisciplinary

conference on flourishing for interdisciplinary integrative science of well-being. I do think it's really, really important.

Brian: It's probably a matter of needing and wanting researchers to be rooted and grounded in what they're specifically empirically contributing, but then also to be free and able to talk in a more conversational way about the theory development. Just a last piece here, then—we've all been living through this past year in terms of the pandemic, but there are also other really pressing concerns that have been with us for a long time in terms of social justice and related issues.

I'm just curious, from your own personal vantage point here, and this might be a matter of either personal strategy or advice that you've given to others: Do you have a sense of whether seeking out and thinking about positive possibilities has been a useful survival strategy? Is that something that you've been advocating for? Do you think we should be actively looking for more ways to highlight positive possibilities in the future as a way of passing through moments like this?

Christian: I agree 100%, and I can speak to this on several different levels—just on an academic level first and then on a personal level. On an academic level, we have data from early in the pandemic—this is back in April—that shows people who were throughout the day anticipating something positive coming up just showed much better well-being and more positive emotions. What's also really, really fascinating is that we asked them how willing or motivated they were to do something about the pandemic that they had to, if there were some issue that they had to try to address.

People who anticipated these positive events said, "Yes, now I'm more motivated to try to do the tough things." I think that's really, really important. That's something that also gets a little bit lost when we're talking about positive emotions and positive anticipation—people think it's all about going to these meadows and frolicking, but it's not. It's also about giving you the confidence, energy, and resolve to do the tough things.

On a personal level, what I've been telling people myself is that one of the biggest and toughest parts about this pandemic is just that it's seemingly endless—you don't know when it's going to end, if it's going to end, how it's going to end, or what's going to happen next. That future-oriented worry and negativity have to be combatted, I think, with future-oriented positivity, because past-oriented positivity is not going to get it done. Future-oriented positivity is going to be a little bit more powerful, because that's what's coming up next.

Present-oriented positivity is good, and I think that's really, really important too, but it still doesn't have the same juice. You have to be looking to the future. The issue, though, is when the far future is so uncertain. I've been telling people to reel it back a little bit and take it a week at a time. Don't worry about the cruise that may get canceled. Think about, like, what are you going to do this weekend? What's coming up next week? The little things—and that day-by-day, week-by-week type of positive anticipation—can be that salve that allows you to get through this thing.

Brian: That's great. What a great place to end on there, as we can all look ahead to the coming week. We're just about out of time, Christian. Thank you so much for joining us. I really enjoyed our conversation.

Christian: Absolutely. This has been super fun.

Implications for Researchers

- Social science has generated insights about our core human tendencies and needs. Those include our tendency to experience lessened stress when anticipating a positive future outcome, which suggests that anticipating positive experience itself can provide a benefit. Hope, in other words, can be useful in improving our everyday experience.

- If researchers could better understand the value and roles of positive emotions in human well-being they could suggest steps we could take to increase well-being.

Suggested Reading

Monfort, S. S., Stroup, H. E., & Waugh, C. E. (2015). The impact of anticipating positive events on responses to stress. *Journal of Experimental Social Psychology*, *58*, 11–22. https://doi.org/10.1016/j.jesp.2014.12.003

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About the Editors

Brian G. Southwell, PhD, directs the Science in the Public Sphere program in the Center for Communication Science at RTI International and holds faculty appointments at Duke University and at the University of North Carolina at Chapel Hill. He has been an active participant in efforts to address public understanding of science, including talks in venues such as the Aspen Ideas Festival and as an adviser for projects such as *NOVA Science Studio*. He also hosts *The Measure of Everyday Life*, the public radio show that inspired this book, on WNCU.

Karen Keaton Jackson, PhD, began her academic career at Hampton University in Virginia, earning a bachelor of science in English secondary education with summa cum laude distinction. She received her master's and PhD in English/composition studies from Wayne State University in Detroit, Michigan. While pursuing her PhD, she was awarded a predoctoral fellowship at Le Moyne College in Syracuse, New York, where she taught courses on multicultural literacy. In May 2015, she received a University of North Carolina Board of Governors Award for Excellence in Teaching. Her current research interests include the relevance of the Historically Black College and University context when considering literacy, race, and identity for African American students. She has served on the executive boards of the Southeastern Writing Center Association and the Council of Writing Program Administrators. Presently, she serves as a trustee on the NCTE Research Foundation Board and is a professor of English and director of the University Honors Program at North Carolina Central University.

Bridget Pittman-Blackwell is a May 2020 graduate of North Carolina Central University, where she currently continues her studies in a graduate master's-level psychology program. Her research background is in the areas of body esteem/image and psychological impacts associated with sickle cell disease. As a 2019–20 WomenNC scholar, Pittman-Blackwell researched the psychological impact of school dress codes on African American girls in Durham, North Carolina. She also has been a graduate assistant at NCCU's Office of Spiritual Development and Dialogue and has served as a counselor and mentor to young girls at her local community center.