

Trust and Numbers

Dr. AnnJanette Rosga

Presented at the American Evaluation Association Annual Conference

Cleveland, OH | November 2, 2018

[Slide 1] Welcome! I am Anjie Rosga, a director at Informing Change [Slide 2], a strategic learning firm in Berkeley, CA. Like many evaluators, I've come to this profession circuitously, after years of being first an academic—a professor of sociology and anthropology—studying civil and human rights training for police, and later directing the UN office of a women, peace & security NGO. Most of my projects now involve evaluation and strategic learning for policy advocacy and other efforts to bring about complex systems change.

[Slide 3] My talk today, while titled “Trust and Numbers” will really circle around four key terms: **Trust, Power, Objectivity, and Truth**. I want to discuss some ways that numbers can function, first, [Slide 4] as **stand-ins for *trust***, second, as especially **powerful [Slide 5] ways to communicate evaluative findings** and, third, as a means of representing a kind of **disinterested, disembodied, god's-eye view of *objective* [Slide 6] *truth* [Slide 7]**. I'll end on a note about ***love***.

As I work my way through, I'd like you to keep four claims—or maxims—in mind. I'll return to these toward the end of my talk [Slides 8-11]:

- It is important to speak truth to power. [Slide 8]
- Neither truth, nor power, is singular. [Slide 9]
- But some things are truer than others. [Slide 10]
- To speak truth(s) to power(s) [in credible, persuasive ways], we must cultivate trust.

[Slide 11]

Before we dig into some of this more abstract territory, I want to begin with something more personal, and very much more embodied: a story about my brother Scott.

[Slide 12] Scott was born unexpectedly early, 6 weeks premature, and weighing only two pounds. This was back when advanced NICU's were, well, less advanced. It's a lot more common now for preemies to survive. But then? It was miraculous he lived. Unfortunately, his survival came at the cost of severe neurological damage.

Scott had cerebral palsy and hydrocephalus, a condition in which the fluid that normally protects the brain and spinal column, instead builds up inside the skull, generating painful and damaging pressure on the brain. To relieve this pressure, neurosurgeons installed a series of silicone shunts, or artificial valves, to move the fluid out of Scott's head and into his abdomen.

[Slide 13] Scott's brain damage meant he couldn't speak. He couldn't get himself into a sitting position, though he could eventually hold himself up seated. He spent his days lying on a big pink blanket surrounded by toys and the sheets of newspaper, which he used to love to crinkle up in front of his face, giving himself an adorably ink-stained nose. Inevitably, after a few months, each shunt would fail, leading to increasingly frequent and severe seizures. As the painful pressure in his head built up, he would roll himself around the floor seeking out furniture to bang his head against.

Our mother threw herself into his full-time care. She taught my sister and me that Scott's disabilities were just another form of human diversity. "Everyone has at least a little something that makes them 'disabled,'" she'd say. "Just look at all the people who need glasses to fix their vision."

[Slide 14] One day, my mom took my brother for an eye exam and came home with a story that for many years shaped my understanding of my brother's consciousness. "You'll never guess what happened," she said. "The eye doctor said Scott is legally blind. Just as the doctor *said* that, Scott reached out and pulled the doctor's glasses right off his face!" And with this apocryphal tale, I came to believe my brother, far from being the profoundly brain damaged child who could do almost nothing for himself, was a kind of idiot savant. My heart swelled with pride in this brother of mine. Not only is he smarter than the doctor, I thought, but he had deeply cloaked super powers. Scott pulling the glasses from this doctor's face seemed like the very definition of speaking non-verbal truth to power. Without uttering a word, my brother had not only proved the doctor wrong by showing that he could in fact see, but he had demonstrated the truth my mother spoke of: that disabilities are just a facet of human diversity.

At the time, no one in my family understood the distinction between blind-as-a-bat-blind, and "legally blind." The doctor calling my brother "legally blind" was clearly mistaken or, worse, he was just lying. Much later, I learned that legal blindness is defined not by a total lack of vision, but by a number: 20/200.

[Slide 15] If this is an eye chart as seen by someone with perfect 20/20 eyesight, then legal blindness actually makes the eye chart look like this [Slide 16].

What is the interpretive work that moves us from the numbers 20/200, to these images to, to the concept “legally blind”? That interpretive work is invisible.

Scott had his 13th [Slide 17] and final surgery at age four [Slide 18]; he lived another [Slide 19] three years after that. I was 12 years old when he died [Slide 20]. My sister was eight [Slide 21].

[Slide 22] These numbers are facts, yes? They can be documented. They are not in dispute. There is an agreed upon meaning for these numbers –they signify how many, how long. How many surgeries? How long a life? One source of the power of numbers is that they can mean the same thing to different people – regardless of language, geography, or culture. Their very abstractness makes numbers transferable. Numbers make the interpretation, discretion, and judgment behind them disappear: numbers are powerful in part because they render invisible the human choices that create them.

Numbers shield us from the perceived the illegitimacy of “mere anecdotes.” Yet, many of us still harbor doubts about the ability of numbers to represent the truth; hence this quote from Benjamin Disraeli, popularized by Mark Twain: “There are lies, damn lies, and statistics.”

I want to reassure those of us who’ve survived the tired quantitative vs. qualitative debates: this is not a screed against statistics. Rather this is a meditation on the role of trust and relationships in determining what gets to count as credible evidence in the field of evaluation. *What* gets to count as valid and reliable knowledge? *Who* gets to count as a credible purveyor of valid knowledge? And, *for whom* is evaluative knowledge valuable? In what ways?

[SLIDE 23] TRUST

To explore these questions, it helps to understand how the history of the scientific method has closely paralleled the history of demographic statistics, [Slide 24], or the way we measure and describe groups of people.

Demographic statistics, the numerical description of population groups, rose to prominence first in France, [Slide 25], when rulers began to control such large swaths of land that they could no longer personally account for all the people they ruled over. Thus, demography emerged alongside the rise of European nation states.

Historian of science Theodore Porter wrote in *Trust in Numbers*—a book whose title I’ve adapted for this talk—about the historical association between objectivity and quantification.

[Slide 26] Porter observed that “quantification is a technology of distance.”¹ He wrote, “*Since the rules for collecting and manipulating numbers are widely shared, they can easily be transported across oceans and continents and used to coordinate activities or settle disputes. Perhaps most crucially, reliance on numbers and quantitative manipulation minimizes the need for intimate knowledge and personal trust. Quantification is well suited for communication that goes beyond the boundaries of locality and community.*”²

Put another way, it was far less likely that numbers would generate controversy (or resistance to the decisions of rulers) than words would do. This is because the mathematical calculations that produce numbers so often appear to be independent of human judgment. This apparently disinterested quality of numbers, grants them power even today.

[Slide 27] As Porter noted, **the language of quantification proliferates in conditions of mistrust.**

POWER

[Slide 28] What makes the transportability, comparability, diversity-flattening, fact-ness of numbers so powerful? Is disinterestedness always a more valuable platform for truth? Why *do* numbers have this power?

It’s now time to distinguish between numbers—mere counting—and statistics, which involve more or less complex mathematical calculations and the theoretical construct of probability. If we want to know why *numbers* are powerful, there’s no one better to ask than political theorist Hannah Arendt. She wrote in 1969—at the height of political unrest in the US—that “the power of the government depends on numbers.”³ She contrasts this with tyranny, “the most *violent* and *least* powerful form of government. Indeed,” she says, “one of the most obvious distinctions between power and violence is that [Slide 29] **power always stands in need of**

¹ Porter, Theodore M. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*. Princeton, NJ: Princeton University Press, 1995. p. ix.

² *Ibid.*

³ Arendt, Hannah. *On Violence*. Orlando, FL: Harcourt, 1969. p. 41.

numbers, whereas violence, up to a point, can manage without them because it relies on implements [often weapons].”⁴

Arendt was arguing against what she saw at the time as “a consensus among political theorists from Left to Right...that violence is nothing more than the most flagrant manifestation of power. ‘All politics is a struggle for power; the ultimate kind of power is violence,’ said C. Wright Mills.”⁵ The phrase “speak truth to power,” in some ways echoes this notion. But if we listen to Arendt, we need to unpack the association between violence and power. She says, “*Power* corresponds to the human ability not just to act, but *to act in concert*. Power is *never* the property of an individual; it belongs to a group and remains in existence only so long as the group keeps together.”⁶ It relies on “*Authority*... [which] can be vested in persons ... or it can be vested in offices” like the presidency, or the senate. “To remain in authority requires respect for the person or the office. The greatest enemy of authority, therefore, is contempt, and the surest way to undermine it is laughter.”⁷

OBJECTIVITY

[Slide 30]: *Statistics* are powerful in part because of their historical association with objectivity. While demographic statistics facilitated the rise of European nation states, the Enlightenment idealized objectivity as the ultimate standard of scientific validity.

The importance of objectivity was championed by Robert Boyle, known as the “father of chemistry,” and even more importantly, as the humble patriarch of the experimental method.

[Slide 31]

Historians of science tell us that Boyle achieved the feat of objectivity through two innovations. First, he established conventions for the scientific method, such as mandating the elimination of all variables but the ones being tested, and requiring replication of results through repeated experiments. Second, he championed a way of validating experimental truth: through a witness. Witnesses to truth could only be European men of means, whose wealth enabled them

⁴ “A legally unrestricted majority rule, that is, a democracy without a constitution, can be very formidable in the suppression of the rights of minorities and very effective in the suffocation of dissent without any use of violence. But that does not mean that violence and power are the same.” Arendt, Hannah. *On Violence*. Orlando, FL: Harcourt, 1969. pp. 41–42.

⁵ Arendt, Hannah. *On Violence*. Orlando, FL: Harcourt, 1969. p. 35.

⁶ Arendt, Hannah. *On Violence*. Orlando, FL: Harcourt, 1969. p. 44.

⁷ Arendt, Hannah. *On Violence*. Orlando, FL: Harcourt, 1969. p. 45.

to resist bribery. These men were also considered objective witnesses because they were unencumbered by all things female: bodies, emotions, and ornamental flourishes.⁸

This painting, known by many as “The Experiment” depicts [Slide 32] Robert Boyle demonstrating the creation of a vacuum using his version of the scientific method. He has isolated his experimental subject, a dove, [Slide 33] in glass, to protect it from interfering variables. He then uses his famous air pump to extract the air from the glass until the dove suffocates, proving the existence of the vacuum. Note how the [Slide 34] woman on the right *cannot* clearly witness the experiment, as distress has caused her to cover her eyes and turn away, signaling her unreliability as an objective witness.

In his scientific method, Boyle represented the figure of the “Modest Witness.” Modest Witnesses spoke and wrote without flourishes; their descriptions of experiments communicated authoritative, impersonal, disembodied truths. In this painting, note the faces of the men. [Slide 35]

A heated argument with my best friend Sam gave me a more personal experience of these concepts. We went to graduate school together and briefly taught at the same college. He was teaching a course on masculinity that I had designed for a joint sociology and anthropology department. Not all of the syllabus was familiar to him, and some of it he found downright annoying. He called me one morning while he was preparing to teach a book called *Stone Butch Blues* by Leslie Feinberg.⁹

The book describes how Feinberg suffers violence at the hands of people who mistook her for male before realizing she was in fact female. My friend Sam—an economically privileged white guy—disputed the truth of the narrator’s account. He said he had *lived* in New York City [Slide 36] during that time and he *knew* there wasn’t this kind of rampant gender-based violence going on. I reminded him that I too had lived in New York City then and this kind of violence was plentiful enough for me to write my bachelor’s thesis on hate crime. I asked him, “What makes you think your memories of the city are the only ones that matter?” Why are you so confident that your perceptions are just authoritatively True?

⁸ See Shapin, Steven, and Simon Schaffer. *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life*. Princeton, NJ: Princeton University Press, 2017; and Haraway, Donna J. *Modest_Witness@Second_Millennium. FemaleMan_Meets_OncoMouse: Feminism and Technoscience*. 2nd ed. New York, NY: Routledge, 2018.

⁹ Feinberg, Leslie. *Stone Butch Blues*. Ann Arbor, MI: Firebrand Books, 1993.

My friend Sam was like The Modest Witness—unconscious of the particularity of his own experience. But this is all old-hat, now, right? We’ve had social movements that fundamentally challenge the idea that objectivity is a view from nowhere. We’ve had cultural relativism, feminism, and on and on. But sometimes those critiques end up simply flipping the script: instead of power and privilege speaking truth, we get into oppression derbies where the more oppressed or violated a person is, the more accurate their perspectives are—by definition. Even when the definition of power is flipped, we still end up reinforcing the idea that truth is singular.

The common sense version of objectivity that we’ve inherited from the Enlightenment [Slide 37] refers to a “view from nowhere” [Slide 38], “untainted by perspective” [Slide 39], “disinterested” [Slide 40], “irrefutable” [Slide 41], and “identical regardless of changes in viewpoint” [Slide 42]. If a view from nowhere is pure, like clear glass, then views from *somewhere*, from a particular person or type of person, are correspondingly tainted and delegitimized.

In resisting a view-from-nowhere objectivity, we sometimes err instead on the side of a view that comes from a *correct* somewhere, whether that somewhere is female, or disabled, of color, or working class. It is certainly the case that systemic experiences of discrimination often widens one’s perspective. You see not only from your own eyes, but you also can’t escape knowledge of how the world looks to those with more power than you. Conversely, when one occupies a position of privilege, one can sail through life unencumbered by knowledge of what it’s like to see the world from a less privileged place. Still, it’s dangerous to rely on any one perspective.¹⁰

I can now reflect on the ways that disembodied numbers fundamentally transformed how I viewed my brother. [Slide 43] Years after he died, I took a job working with young children on the autism spectrum. This job required me to learn how to complete these rubrics called “individualized education programs,” or IEPs, used to plan educational goals for children with cognitive and other disabilities. At the time, IEPs were (primarily) constructed of a series of quantifiable assessments: indicators and benchmarks. Ironically, these *individualized* educational plans only allowed for a fairly narrow range of variation among children. IEPs enabled us junior teachers to monitor and evaluate students’ progress toward intended

¹⁰ See Haraway, Donna J. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14, no. 3 (1988): 575-99. Accessed February 14, 2019. <http://www.jstor.org/stable/3178066>.

outcomes—often signifying distance from a neurotypical norm. We needed to help Benjamin practice holding eye contact. More seconds of eye contact? Benjamin’s improving! By redirecting Lissy when she was obsessively twiddling shoelaces, we were decreasing the amount of time she spent “perseverating.” With Jonathan, it was the number of “meltdowns” he had per day that positioned him on a bell curve of distress tolerance.

By design, our understanding of individual children’s growth morphed according to these indicators. What counted was what we were counting. In this context, I learned the special education definition of “profoundly retarded” – a phrase that had defined my brother’s educational needs for as long as he lived. He too had an IEP. Retrospectively comparing him to the children with autism with whom I worked, made him appear to be nearly inanimate, closer to a vegetable than a normal, healthy child – still less a child with secret super powers.

As someone who has personally grappled with the challenge of deriving the truth from multiple conflicting perspectives, I have thought deeply about what is at stake in our attempts to find and proclaim the truth, especially those truths that intimately affect other people’s lives.

If we want our research to be *useful*, we must provide [Slide 44] evidence that is credible to audiences that matter. The figure of the Modest Witness might be instructive to us as evaluators trying speak truth to power. But this history raises some really tough questions the field needs to grapple with--particularly around the acronym of the day: DEI (or diversity, equity and inclusion). Who gets to be read as “modest?”

Whose witnessing is credible to whom? [Slide 45] What kinds of evidence persuade? [Slide 46] We are navigating these questions in a moment of epistemological crisis over what counts as—and sometimes the very existence of—the truth. So given this incredibly fraught history, and this complex moment, where does that leave us as evaluators, who want to be as accurate as possible, who want to speak clearly and concisely, but also to capture an elusive sense of truth, one that reckons with power and multiple perspectives?

[SLIDE 47] TRUTH

To answer this question, I will return to the four maxims I opened with. Taken together, these statements have helped me navigate my relationship to the truth.

[Slide 48] First: it is important to speak truth to power.

[Slide 49] My mother was my first real example of political engagement and activism. She fought for my brother Scott's rights. She was his advocate in medical, educational, social and even familial settings. She taught me to imagine the world through his eyes, as well as seeing it through my own. I'm certain that's a big part of what led me to study cultural anthropology, and to activism of various kinds.

[Slide 50] The second maxim might seem contradictory but I don't believe it is: **neither truth nor power is singular.** They mean different things to different people under different circumstances. Truths can be contradictory— [Slide 51] even mutually incompatible—without rendering one another invalid. Power can be expressed in myriad ways—there can be rich and moving, compelling, and *accountable* ways to exercise power.¹¹ It's not by definition a bad thing. So while speaking truth to power is essential to any social change effort, it's equally vital to understand which truths matter at any given time, to which powers. Simply speaking "truth" to "power" isn't necessarily enough, for instance, to get us to diversity, equity and inclusion – never mind "justice."

It is true that my brother was profoundly retarded and legally blind. It's also true that I grew up believing in—and deeply learning from—his capacities to interact with me. The power of medicine and IEPs could *never*, alone, define who Scott was to me, nor what it meant to be his sister. My mother's relativism was more helpful to me as a child: Scott has disabilities. We all have disabilities. But that was far from truthful in ways I couldn't see at the time. His disabilities *were* profound. They were orders of magnitude worse than needing glasses to get 20/20 vision.

Growing up fiercely defending him against the taunts of kids in our neighborhood, gave me the confidence to believe and assert this third maxim that, multiple perspectives notwithstanding, [Slide 52] **some things are truer than others;** [Slide 53] **and there are such things as lies.** It would be a fabrication to say my brother could use words, or that he could walk. It is more true to say that Scott was legally blind than to suggest he purposefully grabbed the doctor's glasses in response to this diagnosis. If it happened at all, I don't think it was the symbolic gesture my mom made it out to be.

[Slide 54] Finally, **to speak truth to power in credible, persuasive ways, we must cultivate trust.** Only by building trust can we shift the numbers that are, as Arendt reminds us, the basis

¹¹ Remember Arendt: "power always stands in need of numbers."

of power. Pursuing a multifaceted truth also requires navigating multiple types of power. Deriving a credible truth about my brother involved navigating the power of medical authorities, IEPs, numerical benchmarks, *as well as* the narratives of family members. This navigation is possible for me *not* because I am objective—a “Modest Witness”—but because I can draw on the strength of a relationship. This strength of relationship, or trust, allows me to find and express a credible truth, even in the presence of power. Only by expressing credible truth can power be built and shifted.

Objectivity *is* power really... it is the convention we have come to trust most for conveying truth and, for this very reason, it *is* powerful. Power is a chicken and egg kind of thing. Objectivity is powerful because powerful people got to say what counted as objective, and therefore true. And statistics are powerful because they seem to embody the god’s-eye version of objectivity. Now we have internalized it so much that we have a tendency to distrust other forms of truth, other potential sources of objectivity.

Anthropologist Johannes Fabian formulates two theses about ethnographic objectivity, for instance. First, that it lies “...not in the givenness of data, but in the foundation of intersubjectivity.” Second, he argued, “Objectivity in anthropological investigations is attained by entering a context of communicative interaction through...” the medium of language.¹²

Quantitative measures may be a language of distance, but truth can also be found through intersubjectivity and communicative interaction – and because of my brother, I’d modify Fabian’s second thesis about language. One *can* have communicative interaction even in the absence of language. Touch, closeness, exchanging smiles – these are communicative interactions and I had them in spades with my brother.

Ultimately [Slide 55], with this talk, I want to argue for the importance of foregrounding and re-centering trust building in and with social research. [Slide 56] I want to look behind the façade of depersonalized surety that statistics purport to provide us. To be clear, I do not aim to minimize the utility of numbers, but rather to advocate for transparency around their creation and interpretation. Numbers represent credible evidence to some, but not all. As many people at this conference are saying this week, and as evaluators are uniquely positioned to remind us, evaluative findings are most credible when we communicate them in language that resonates

¹² Fabian, Johannes. "Ethnographic Objectivity: From Rigor to Vigor." In *Rethinking Objectivity*, edited by Allan Megill, 81-108. Durham, NC: Duke University Press, 1994.

with an evaluation's consumers. That is communicative interaction and it can achieve a more nuanced form of objectivity.

As Patton proclaimed years ago in *Utilization-focused Evaluation*,¹³ the first step in research design is to figure out who needs to use our evaluation findings and for what purposes. Truth is always contextual, meaning different things to different people. You need to figure out which people you want to convince and what forms of evidence they will find persuasive. We need to be prepared for situations in which our audience simply will not be swayed by numerical evidence.

I think this is important to talk about now because I see so many people responding to “alternative facts” with louder and more vitriolic adherence to a single truth that they claim stands above or outside of context. Meanwhile we surround ourselves with people who think like us, so we are not getting exposure to people who think differently unless it's filtered through people we agree with. I'm as guilty of this as anyone—I only know what Fox News is up to because I watch late night comedy.

I don't think there's an easy fix, but it feels lazy to me to say we just need to find the truth and then we'll all be fine. We're data people, right? And by now we should all be very well aware of how much data there is to demonstrate that “view from nowhere” facts don't change people's minds. I believe this crisis of truth cannot be solved with numbers alone, in a context where people ask first who you are, and then derive their confidence about what you say from what they *believe* about your identity categories. At times like these, it's the relationship, the trust, that must come first.

We are going to have moments of convergence and divergence of values. [Slide 57] Moments of trust and distrust, feelings of identification, recognition, alienation, and disappointment. Grappling with the incommensurability of conflicting truth claims is uncomfortable and messy. But it's the working back and forth across those oscillations, the trial-and-error communication, repeated over and over, that will help us jostle our way toward change.

Real creativity and change-making happens through messy encounters, where one person's thinking is different enough that it startles us into curiosity— [Slide 58] into wanting to hear more, into seeing things [Slide 59] from a different perspective. On my more optimistic days, I

¹³ Patton, Michael Quinn. *Utilization-Focused Evaluation*. 4th ed. Newbury Park, CA: SAGE Publications, 2008.

think we might just be in a moment of opportunity that helps us get ourselves past the binary of truth/not-truth, because that is seldom as helpful as asking, “What truths matter most in this context, to these audiences, for these purposes?”

[SLIDE 60] CLOSING: LOVE

To conclude, were I now to evaluate how our society grapples with people who have *profound* disabilities, I would be inclined to focus on profound incommensurabilities: between on the one hand, **[Slide 61] love based on the present tense, on co-existence, and** on the other hand, **[Slide 62] love that accrues from the expectation of a long and evolving future.** When I put all my maxims together, I can appreciate—and have hopefully conveyed—how it is true, both, that my brother's vision was limited and that he was profoundly retarded. But it's even more true—to me—that loving him, living in rich relationship to him, taught me an entirely different sense of the profound.

[Slide 63] Thank you.