THE LIVELY SCIENCE: REMODELING HUMAN SOCIAL RESEARCH

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Preface: Getting in a Book Mood

What's a nice reader like you doing in a book like this? I'm hoping that you're here because you're curious about a way to do "behavioral science" or "social science" that will help you figure out a problem you'd like to solve, or maybe you just wonder what those words mean because you're a curious type. Maybe you're a student, new or returning, embarking on a course with those names attached to it, or maybe a course in one of the many other areas that make use of them.

The point is, I'm writing for readers who are fresh to the concepts, not for colleagues. This book has a simple premise to get you started. The premise is, *research on humans in their social world by other humans is not a traditional science like the one created by Galileo and Newton*. It's not that the creators were wrong. Far from it. The ones who were wrong were the historical figures who tried to imitate the way the creators worked, neglecting the fact that learning how people make it through the day is different from dropping balls from the Leaning Tower of Pisa or getting hit on the head by falling apples. Galileo didn't have to communicate with the balls. Besides, he didn't have to worry that the balls might look down 185 feet and refuse to jump and throw him over the parapet instead.

All sciences make their case based on evidence according to the rules of some logic, and then they try and prove the case wrong in order to show that it might be right. But once a human makes other humans in their social world the scientific focus, all sorts of problems come up that didn't appear with material objects or with most non-human forms of life. True, the problems start to show up the closer the animal gets to Homo

sapiens. Chimpanzees, it turns out, are a lot harder to research than ants, and humans are even more complicated than chimps.

It's an old argument, a couple of centuries old now, that human social science is a different breed of scientific cat, but this is *not* a book with broad and deep coverage of that history. I'll use that long history as a conclusion, as the basis for a "lively science," not as a debate to be re-hashed yet again. This book will use a few key figures and a few key concepts to outline why a human social science is different and then take it from there. The fact that it's different does not mean it isn't a science. It does mean that it has to be done differently than an experiment in a chemistry lab.

The Lively Science is about how to form a question and think of ways to answer it in a different scientific way. The hundred-dollar word is *epistemology*. It's not a common word used around the house, as Groucho Marx used to say on his classic TV show, *You Bet Your Life*, but it is a straightforward word that means the nature of knowledge and how it is acquired. The problem the book zeroes in on is simply this: The behavioral and social sciences adopted the *wrong* epistemology. But then what does the *right* epistemology look like? That's the question I want to answer here.

Mostly this book is driven by experiences during the last 15 years or so, starting with the day I left the university to work on a variety of different projects in the so-called "real world," a place I have tried to locate for years without success. Several of those projects will be used as examples. Their variety, and the people I worked with, taught me to think and speak in a more general way about an alternative human social science. That alternative was why people sought me out, because the traditional way of doing human social science had cost them a lot of money and produced little in the way of useful

results. Thanks to them, I got better and better at describing the alternative, how it was different, and what it could and, even more importantly, could not do. This book is a summary of what I learned to say to them, together with a selective look back at history to find out that what I was learning had, as usual, already been said by many people a long time ago.

A note about notes before we start: The book rests on a few key references, many of which are mentioned in the text itself. Chapter notes at the end will give other citations and a few suggestions for additional reading should anyone want to dive into deeper waters. Those who would like to join the professional club have some investment of time and energy ahead of them, but anyone who makes it through this book should have a general sense of how "the lively science" works.

My thanks to the many colleagues and students over the decades, inside and outside the halls of academe, for the conversations and questions and answers that helped shape this book. Thanks also to the State of Maryland for the partial pension after 16 years of work as a professor and to the Social Security Administration for the monthly check. Between the two of them they provided enough money so I could carve out time from my current self-employed life to write this book. Most of my thanks go to Ellen Taylor, mi vieja, as they say with affection in New Mexico, who not only tolerated this project but also generously helped to shape it.

The mistakes, as the saying goes, are all mine, but I tried to make them interesting.

Chapter One: Behavioral/Social Science—An Oxymoron?

In late 2010 the American Anthropological Association considered revising their mission statement to eliminate the word "science." Earlier that same year, Republicans in the House of Representatives had introduced legislation to eliminate funding for "behavioral and social sciences" at the National Science Foundation because they are "often more controversial and less directly related to NSF's core mission." It might be the first time that the AAA and the Republican Party have ever agreed on anything. Anthropology is uncomfortable being called a "science," and the Republicans are uncomfortable including it or any of its behavioral and social science kin in a national "science" foundation.

What is the problem here with using "human," "social" and "science" in the same sentence?

It's not news, this problem. There are the old stories, like the one about President Harry Truman, who told the press he wanted a "one handed economist." When you asked them a question, he said, they always replied, "On the one hand this, on the other hand that." Economists, they say, are the most scientific of the human research lot, but then again, they're the ones that inspired Thomas Carlyle to add the adjective "dismal." The general sentiment was well expressed in the famous line from the poet W.H. Auden, "Thou shalt not sit with statisticians nor commit a social science." Then there are Mark Twain's three kinds of lies, the regular kind, but then "damn lies" and, worst of all, "statistics."

There are older stories still. Goethe wondered how Newton could claim that the spectrum said all there was to say about human perception of color, and Hegel wrote about history, about how time was a dimension of the human situation that the second law of thermodynamics couldn't handle. Some say we can even go further back, to Protagoras, famous for his saying that "man is the measure of all things." He is credited with being the first Sophist, a movement whose reputation only fed the conflict between the appreciation of human social situations, on the one hand, and the for-hire manipulation of words absent any commitment to truth on the other.

None of this inspires a great deal of confidence in human social science, neither in the accuracy of what it has learned, nor in its possible uses. And it all started out on such a positive note, too—literally a "positivistic" one. It began with the optimism born of Newton's discoveries. As Alexander Pope's epitaph for his tomb in Westminster Abbey concluded, "God said let Newton be, and all was light." If all the light was in classical physics, who but a disreputable sleaze would hang out in the dark? The rush was on to make human social science as Newton-like as possible.

August Comte, whom many would consider the founder of sociology in the early 19th century, called his work "social physics" to honor the master. His "positivism" was a sociology that included the preceding tradition of physical science—empirical, quantitative, guided by hypothesis-testing experiments. Positivism, he argued, would solve the social problems of post-revolutionary France. That didn't work out so well either.

Human social science has always been a problem child. In the eyes of those outside the profession, the famous—and often inaccurate—quote sometimes comes to

mind, that human social science is "the painful elaboration of the obvious." Worse is the phrase of those who shift their gaze from some new technological marvel from Silicon Valley to the results of a social survey, that the whole enterprise is "pseudo-science." And within the professional human social research world, a clear caste system ranks its members. Experimental methods and mathematical equations are at the top; the words and actions of people in their everyday lives are at the bottom.

This ranking is a two hundred-year-old mistake. That is the first premise of this book. The second premise is that the mistake occurred because human social science tried to be the wrong kind of science. The third premise is that a different kind of science has been waiting in the wings for a couple of centuries, and it's high time to move it from the margins to the center, because it grounds human social science in what it is supposed to be about – us, in our everyday lives, for better or for worse, 'til death do us part. And the fourth and final premise: None of this excludes traditional science; it includes it as one character, though not the author, in a much larger story of how humans describe and explain other humans in a scientific mode.

"Data" for a science is a construction born of an interaction between scientist and world. This is 20th Century physics, not some tagline from an obsolete postmodern theory. The problem for human social science is that it usually tries to construct data in a way that imitates as closely as possible a traditional science laboratory. What that boils down to is a simplified situation isolated from real life that usually doesn't resemble it at all, designed and controlled by a scientist. The problem is that, most of the time, those kinds of situations are *not* the phenomena that the science, in the end, wants to describe or explain.

Our lives are seldom like the experimental frameworks that the scientists shoehorn

us into. We can't be described and explained absent some sense of our beliefs, feelings, desires, and purposes. Outside the research setting, we live in social webs that influence what we think and do, as in the famous "theorem" (a bad metaphor if ever there was one) of W.I. Thomas in 1928, that if people define a social situation as real, it is real in its consequences.

There are other ways to get the science job done with all the critical steps, namely, *evidence organized by logic to reach a conclusion that is then tested by trying to prove it wrong*. The historical problem is, those other ways look chaotic if not psychotic from a traditional point of view. They are not. The problem, the one this book will try to solve, is how to make an alternative way of doing science clear so that an interested reader can get a sense of how it works and how to evaluate its results.

A recent historical wave aimed to do exactly that, a wave usually called *qualitative research*. There is in fact a link between the two hundred year old history of an alternative human social science—the foundation on which this book rests—and the more recent qualitative story. But the exponential explosion of the "qualitative" field and the promiscuous use of the term have muddied it considerably. Comte-like positivists use propositional data and call their research "qualitative" now. Some "qualitative" researchers do projects that have nothing in common with the concept of "science" used in this book.

The only clear meaning of "qualitative" versus "quantitative" at this point is data consisting of "propositions" as opposed to data consisting of "numbers." But an alternative to Comte isn't about what data a researcher *should* use. It is about research that assumes a researcher will use numbers, propositions, and any other kind of information

she can find that will help learn more about a particular human social world. It's not numbers versus propositions. It's how both of them, and other kinds of information as well, are gathered and put together in a different way. It's about epistemology.

Human Social Science?

"Human social science" is an odd-looking phrase that is one of three that will occur so often in this book that it would be good to talk about them now. The reason for "human" and "social" is this: *The two terms label different levels of organization—person and group*. You can see the split in most traditional disciplines—micro- and macro-economics for example, or in the academic labels that signal both levels at the same time, like psychological anthropology or social psychology.

I'll deal with this two-level problem later. For the moment, this book will worry about any kind of science where both researcher and "object" of study are human "subjects," whether with a focus on the individual or on the group or on both. They will all be lumped together as *human social science*.

There is yet another level, the biological, and another set of terms that blur the levels, like "sociobiology" and "biocultural" and "cognitive neuroscience." Here and there in the book that lower organizational level will come into play. By and large, though, the focus here will be on *individual* humans in their *social* world, *as they experience it and act in it*. And the argument in this book will be that those levels are where the descriptions and explanations of a human social science must originate and return to at the end of the day.

The next two phrases will be used so frequently that I am going to turn them into acronyms. First, some background. The mainstream tradition that came out of the Newtonian era is often called the "received view." It is called that because it is like a caught pass in football with nothing left to do but to run for the goal. The core premise of the received view is that any science, whatever its focus, is at base the same. So what is science? Here is what my New Oxford American computer dictionary says it means:

> …the intellectual and practical activity encompassing the systematic study of the structure and behavior of the physical and natural world through observation and experiment.

Notice there's not a lot of human and social in there. But never mind. Let's take that definition and see what it turned into in human social science.

This received view is often called "behavioral and social science." The phrase is a common one. It has been around for decades. I'll give it an acronym for ease of reference in the rest of this book. Let's call it *BSS* for short.

Don't look at me. I didn't invent the phrase that "BSS" is based on. In fact, at the University of Maryland they called the administrative unit that includes the human and social sciences "BSOS." You can imagine the irreverent comments from my colleagues in the so-called "hard" sciences—to use the usual phallic metaphor—not to mention others in business and engineering. The "OS" was sometimes interpreted as "out of sight," and, with time, as "operating system." The "BS" part you can guess.

BSS, in an oversimplified nutshell, is Enlightenment science carried forward into

human social realms. It marches to the tune of the "experimental method," as outlined by John Stuart Mill in *A System of Logic* in 1843. I'm going to talk about him at length in the next chapter. So prestigious is this method in the world of science, so often is it held up as the Holy Grail, that research centers like the National Institutes of Health call it "the gold standard," as do many other places. They still do, in spite of the fact that President Nixon abandoned the real gold standard in 1971. If not a dead metaphor, it's at least deep-frozen.

Here's a stripped-down version of how science converts human social behavior into scientific gold. Real examples are of course more complicated than this sketch, but I think most mavens would agree that what is to come catches the heart of it, or at least some of its vital organs.

First, imagine a statement that you want to test scientifically. Where does the statement come from? It is deduced from a theory, a generalization about how things are. In human social science, the theory is usually in ordinary language. The statement is called a *hypothesis*. A hypothesis must be true, or at least not wrong, if the theory is true.

A scientist wants to try and *falsify* the hypothesis, in other words, prove it wrong, just like the philosopher Karl Popper said science must try and do. If it isn't falsified, then the theory still stands. Notice that a hypothesis, and therefore a theory, is never *proven* in any simple way, not according to Popper. They just keep surviving test after test, or not, as the case may be. This version of "proof" is hotly debated these days, but that is more than we need to deal with right now.

How do you try and prove it wrong? This is where the founders of science revolutionized history. "Proof" in the Middle Ages meant, check it against the papal authorities in Rome or the Aristotelian scholars in the university. No more, said the new

scientists. Let's take a first-hand look at what the world is actually doing instead of looking it up in Aristotle or the Bible to see if what we say is true corresponds to what is already believed. This new revolutionary plan for testing ideas was called *empirical*, or "verifiable by observation or experience."

So began a conflict between those who look to the world for information and those who preach how the world must be because they think it is so in the privacy of their own minds. The conflict is as current as today's headlines. An early famous case was Galileo, who said that, given all the observations that had been made, the sun, not the earth, had to be at the center of the universe. After his trial by the Inquisition he spent the rest of his life under house arrest, the advantage there being that he got a lot of writing done.

Science has to be *empirical* and *falsifiable*. All science, human/social or any other. In this sense, all science *is* the same.

But is that enough? What if you don't have a theory or a hypothesis? What if you just want to explore how the world works? When they asked Einstein how he came up with the theory of relativity, he said he imagined what it would be like to ride around on a beam of light. Was that a hypothesis? He sounds like a Grateful Dead fan. And he was just dealing with particles. What if the particles had their own ideas of what they were doing and he had to first learn and later explain that? He'd have to get to know them and their true inner feelings. Would that have been a hypothesis? The notion of real science as just testing a hypothesis doesn't describe its most creative moments. BSS tends to leave that creative part of the story out of its final reports.

After the hypothesis has been concocted, a researcher has to figure out a way to *measure* the *variables*, the variables being the things that vary in the hypothesis.

Measurement means figuring out a way to assign a number to the variables that represents their magnitude. One of the variables is called "dependent." It is the one to be explained by the other variable, which is called "independent."

Real science has to be based on numbers. The law of gravity wasn't a song or a punch line to a joke; it was an equation. As Galileo said:

> Philosophy is written in this grand book — I mean the universe — which stands continually open to our gaze, but it cannot be understood unless one first learns to comprehend the language and interpret the characters in which it is written. It is written in the language of mathematics, and its characters are triangles, circles, and other geometrical figures, without which it is humanly impossible to understand a single word of it; without these, one is wandering around in a dark labyrinth.

Never mind that Galileo speaks of mathematics and geometry, not measurement and statistics. Never mind another famous Einstein quote, that not everything that counts can be counted and that not everything that can be counted counts. Sometimes numbers are, in fact, the right language. But the rule that numbers are the *only* possible language for science is nonsense. My friend and colleague, Steve Banks, was a mathematics Ph.D. He used to give me a hard time. He'd say, "You tell people they either deal with numbers or propositions? I wrote a math dissertation that didn't have much of either of those two things in it. So what am I, chopped liver?"

BSS bought into this number-centric epistemology and ran with it. To get the kind of controlled quantitative data that the laboratory fantasy required, it simplified and

controlled and reduced, usually into something that resembled nothing that research subjects would ordinarily do. Subject worlds were only allowed into the research as permitted by a narrow design of the scientist's own making. What happened in BSS research and what happened in life usually didn't have much to do with each other.

BSS results are usually boring to everyone but colleagues who are disciplinary insiders. It had better be interesting to them, because they are the ones who—through "peer review"—control access to grants, journals and promotion and tenure in the traditional academic world. Their version of science makes BSS look more like a laboratory, but less like the human social world it claims to be about. That is the fundamental flaw in this epistemological story that needs to be fixed —not by abolishing BSS, but by reducing it from a gold standard to just another currency for use in the market of those who strive to learn how the human social world does and does not work in a scientific way.

The Fork in the Road

When the received view of science expanded into the human and the social, it turned "human social science" into BSS and little else. BSS grew into the statistical test of quantitative hypotheses derived from prior theory. Data for the test relied on "instruments" or experimental "manipulations," or to available aggregate databases, with little if any question about the way a phenomenon of interest actually took shape in the lives of research subjects, or whether the phenomenon had any correspondence to anything in those lives at all. The research results might have made the hearts of

colleagues soar like an eagle. But I always imagine the subjects, or those research consumers who were interested in learning more about them, wondering what the researchers had smoked for breakfast.

"Received view" human social science became a rule that the *only* way a scientist could do research would be to strap a project into a BSS straitjacket. It was like telling someone that the only tool they could use to build a house was a caulking gun. It's a useful tool, but extremely limited in what it can do, and a poor choice for most of what needs to be done besides caulking, especially if you forgot to bring the tube of caulk.

I need one more acronym in addition to BSS before I start the book, one that can refer to an alternative kind of human social science, the "lively science" as I call it here. It has had many names, not all of them suitable for a family book of this type. Dilthey, discussed in Chapter Three, called it "Geisteswissenschaft," but that's hard for English speakers to dance to. I'll call it, simply enough, "human social research," and I'll refer to it with the acronym *HSR*.

So there's behavioral social science or BSS, and human social research or HSR, both of which are kinds of human social science. I'm going to set BSS and HSR up as separate but unequal ways to do human social science in the first part of the book. As the story moves along, they will start to talk with each other. The book will evolve to show that HSR is the more general framework that can include BSS. But without HSR we can't know why a question is important or whether its answer explains anything. At the end of the book, I'm going to challenge the "separate but unequal" argument with one of the most famous BSS studies of all times, one I admire— Stanley Milgram's experiments where ordinary people jolted each other with doses of electricity because a guy in a white

coat in a science lab told them to. Milgram was a genius, but by the end of the book it will be obvious that his "experiment" was actually a BSS moment in a broad and deep HSR context.

To begin the book, though, I'll start by foregrounding the differences. I'll start with a few 19th century thinkers. They argued over whether or not one human researching some other humans was a different kind of science, and they left a treasure trove of ideas for how to develop an alternative. Their ideas didn't die. On the contrary, they survived on marginal academic and practical islands right up until the present.

Some BSS types use the obsolete word "postmodern" for any criticism of their traditional monopoly. That is not what is in play here. Some HSR types, in turn, call BSS the perfect example of "scientism," with all the connotations of racism, sexism, and classism lumbering along in the semantic background. Not in this book. But the argument that human social science isn't your grandfather's chemistry set makes perfect sense, and that is the starting point for now.

A Trailer for the Movie

As a preview of the book, consider some of the ways that HSR will be different from BSS, given the sketch of how traditional science works.

1. With BSS, a hypothesis is framed *before* the research starts and it can't change. In HSR a hypothesis changes as more is learned during a project, and new ones will appear and be considered well *after* the project starts.

2. A BSS hypothesis is made up of "independent" and "dependent" variables. In HSR there aren't any independent variables. There are, however, patterns that link variables together in many different ways, including feedback loops that undermine many statistical techniques.

3. Where does a BSS hypothesis come from? Usually from a single academic theory. HSR will probably use several theories to formulate research questions and then make up a few more as the case requires and as more is learned during a project. BSS is theory testing; HSR is also theory-generating.

4. BSS is empirical, maybe observational, like the earlier definition of "science" requires, but only within the limits of an interview or experiment or aggregate dataset designed and controlled by a researcher. HSR is open to information from any source, researcher designed or not.

5. The BSS model requires assumptions like *standardization*—every subject sees the interview/experiment in exactly the same way—and *ceteris parabus*— nothing varies *systematically* except the variables in the hypothesis. HSR, in contrast, accepts that neither assumption is ever true in any human social world.

6. To convert a human moment into a number, BSS assumes the number means something that it doesn't necessarily mean to research subjects. HSR focuses more on discovering patterns that mean something to subjects rather than numerical measurements of variables.

7. Both BSS and HSR worry about sampling, but BSS designs a sample before a project starts and HSR modifies it during a project as more is learned

about variation among subjects that matter given a particular research question.

8. Most statistics include prior assumptions about the variables, the samples and the population that BSS usually doesn't investigate. In fact, popular statistical software, last time I looked, didn't make it easy to examine a raw distribution of data. Worse, some statistics assume a normal distribution when in fact the variable of interest may well be distributed in many other ways. In HSR a frequent non-normal distribution is that a few patterns occur a lot and a few others are rare, something popularized recently as the "black swan" effect, also called by the unflattering name of "fat tails."

9. In BSS, assumptions about research subjects are often made to fit a theory's premises. Consider the classic economics assumption, that an economic actor is a rational agent free of social influence making decisions on the basis of perfect information. Imagine an obsessively greedy Spock-like figure checking the Dow on the Enterprise computer. HSR modifies assumptions about subjects and their worlds based on what is learned from them. HSR subjects are more complicated and life-like in research reports than BSS subjects are.

10. BSS aspires to a goal of *objectivity*, the notion that the researcher and his or her biographical and historical context have no influence on the research. HSR rejects this goal as delusional when humans research other humans. HSR science is, at its base, *intersubjective*, neither "objective" nor "subjective" in any simple way.

As I said, this is only meant as a preview, and, hopefully, it raises a lot of interesting questions for the reader. Notice how most everything on the HSR side of the comparison describes characteristics that the BSS received view would describe as "unscientific." The argument in this book is that these characteristics are not unscientific; they are signals that a *different* kind of science is in motion, a science that adapts to the realities of a research done by a human that is about humans, but one that retains characteristics of science like falsification, evidence based on empirical data, logic, and systematic presentation of results.

HSR Ascendant in the Real World

As I write this, in 2012, I make a living in part by working on projects driven by a popular interest in more, rather than less, HSR type science. Where does this "real world" interest come from?

The harsh and arguable answer is, BSS just hasn't helped much when it comes to understanding and acting on problems in actual human social worlds. Yet many human social scientists, from the founders described in the next two chapters to the present, have announced the noble goal of doing exactly that. All of that positive Enlightenment promise, now viewed through the rearview mirror—all that positivism with which Comte jump-started sociology to make post-revolutionary France age like smooth Bordeaux. Was it all just smoke and mirrors?

This collapse of Enlightenment optimism in human social science left us with President Truman's joke and Auden's line of poetry mentioned at the start of this chapter.

But then comes what feels like a new era, things pick up again, not heading for a happy ending like a Hollywood movie, but an ending that shows the "arc of character." The protagonists learn from the crisis and become more comfortable with their limits, getting on with life in a less naïve but more accepting way.

I think this is what's happening today with human social science. I've seen the change in my own lifetime, now into what I learned to call "the third age" in Spanish, namely, when you get past sixty. I started out, in the "first age" as a cultural anthropology major in the 1960s. The Vietnam War landed me in a hospital for the treatment of heroin addicts – as a researcher, not as an addict. The most polite question from other researchers and practitioners and administrators at the time was, "How is what you do different from journalism?" They meant, "What you do obviously isn't *science*, so what in the hell is it?" And "journalism" was often prefaced with the qualifier "mere." The irony, at the time, was that the same skeptics were cheering on Woodward and Bernstein as they uncovered the Nixon-era Watergate Scandal.

Times have changed. Now I hear from groups who start by telling me, "We tried science and science didn't work." (They mean BSS.) "We need a better way of figuring out the human social part of the problem we're interested in."

Here's a recent example. An outpatient chemotherapy clinic cares about their patients and wants to reduce the average amount of time they have to spend in the waiting room. They try statistical analysis of records, surveys, time and motion studies, computer models, god knows what else. The results? They could only shave a few minutes off of several hours of waiting time.

They ask me for help. I hang around, listen to patients and front line staff, read a

lot of things, and do the kind of "unscientific" looking human social research that this book will be about. It turns out that maybe reducing waiting time is impossible. But patients have different ways of looking at waiting time with a common thread. The thread is *uncertainty*—how much better things go if you know *why* you are waiting, both in terms of what's going on with the clinic and what's going on with your disease. So we plan a system to address that.

Even though not much can be done about the number of minutes, a lot can be done about reducing the uncertainty of those minutes. Even if it's bad news, which it usually isn't on a day-to-day basis, it's better to know one way or the other rather than to assume your cancer just jumped a stage when the real explanation is that a subway delay or another patient's morning test results messed up scheduling. The big chiefs and the patients like the plan. It's almost a happy ending, given that stories about cancer tend not to have one, but then the chiefs shift their priorities to hospital-borne diseases, so the plan goes on the shelf. But still, the case makes the point.

The point is that human social science is more accurate and useful if we stop pretending that it can only occur along the guidelines of a laboratory science. No more pretending that you control all the variables when you're not sure what the most important ones might be. No more talking to someone and ignoring the fact that they hear something different from what you intended and vice-versa. The most important thing learned in human social science is probably going to be a pattern rather than a number, a pattern that a researcher didn't know existed until he was well into a project. The best way to show an audience what was learned will probably be a metaphor rather than an equation. And, most important of all, the way a researcher learns will be in fits and starts,

the learning filled with surprises and new concepts that appear in unplanned ways well after the research begins, such that the research itself has to be adjusted and modified as needed.

This HSR alternative, at the end of the day, will still be systematic, guided by evidence, logic and falsification, just like any science. But it will *never* resemble a carefully scripted step-by-step laboratory experiment. HSR will be more about getting the job done rather than how to do it in micro-managed detail.

Human social research, HSR, is a *different kind of science*. Good human social science of any kind can include numbers, surveys, and indicators. And during the purest HSR study, moments will come that call on the purest of BSS experimental logic, as we'll see in the next chapter. Human social science can, and often must, include these things, but in the end it has to grow from and then re-connect with a more comprehensive investigation of the human social world. Otherwise, what is the science about?

Read a report of traditional human social science and nine times out of ten the most interesting part will be in the "discussion" or "interpretation" section, a section at the end based on the imagination of the researcher. At times it is well done and rings true and makes sense out of a mind-numbing sequence of tables and charts. The material in that section, the material that can make sense out of the research in terms of how the human social world actually works, is the part that needs to be at the center of human social science, not a creative writing task tacked on at the end.

It drives me crazy, even though I've done it myself, when a group of people involved in decision-making cite all kinds of BSS data, but then the pivotal moment that tips the decision one way or another centers on a story about what the neighbor said

yesterday or a documentary viewed in the hotel room the night before or a theory the taxi driver presented on the way in from the airport. No disrespect to taxi-drivers. This is terrible human social science used in dangerously important ways. There's no excuse for not doing it right.

"Data" linked to real human social worlds is where human social science, whatever else it does, has to start and has to finish, as long as it wants to claim that in the end human social worlds are what the science is about. The way to fix BSS tunnel vision is, step one, realize that there is a different kind of science, and, step two, make it clear how it works. That's what this book, *The Lively Science,* is all about.

Where Book Titles Come From

The kind of human social science I want to describe here is best understood as a *way of learning, specifically designed for a human interested in figuring out how some others live their lives, followed by a systematic presentation of the results that can be evaluated and challenged*.

The main title of this book is *The Lively Science*. It's a play on the opposite of the "dismal science," as Carlyle called economics back in the 19th century, a century I'm going to dive into for the next two chapters. Supposedly he was inspired to call it "dismal" after reading Malthus' cheery forecast that population growth would outstrip food production and we'd all starve. A different phrase in those days was "the gay science," "die fröhliche Wissenschaft" in the German title of Nietzsche's 1882 book. Another translation into English was "the joyous wisdom." In 2012 "gay" is most frequently used

to mean a sexual orientation and "joyous" sounds like a Christmas card, so "lively" seems like a better wording, since the point of this book is that human social science has neglected its phenomenon of interest, namely, human lives in their ordinary social context.

The subtitle of this book, "Remodeling Human Social Research," is written with tongue firmly epoxied in cheek. But the subtitle does convey two serious messages. Here is the first. Many – many – have written about HSR in one form or another over the decades. I'm neglecting a thorough review of that work for the most part and trying to write an accessible and freestanding overview of a way of thinking about human social science. I hope what I've added here is a clearer description of *why* HSR makes sense with a discussion of the epistemology that describes a general view of the *how*. I owe my ability to write this to the many projects I've worked on and workshops I've given for people who asked me about what I do and how they can evaluate the results. Those conversations taught me how to describe HSR in succinct ways. I'm grateful to all those project colleagues over the years who asked sharp questions and demanded clear answers.

The second serious message in the subtitle: This is an informally written book, like a group of independent contractors remodeling a house, with music playing and story-telling and the occasional politically incorrect joke. In my old age I tell people that, because of how I grew up, I think of myself as a craftsman, only I work with ideas rather than materials. The book is written more as a conversation with a reader while working on a job rather than as a piece of scholarly writing. There are contractions and jokes and popular culture references and personal experiences. Some of them are dated, like the author. As you can see in the chapter notes at the end, the book is lightly referenced, in part because some mentions are well-known and easily found, in part because the focus is

on a few key representative figures rather than an exhaustive exploration of all who have ever mentioned a topic. Not a style for all readers, I know, but a style that I hope makes a long history of complicated thinking accessible, useful and interesting to those who are curious about a different way to do human social science.

So *The Lively Science: Remodeling Human Social Research* it is. In the next two chapters, I'd like to start out by looking a little more closely at three of the 19th century founders. The first, John Stuart Mill, actually lays the groundwork for BSS, but in a way that aims at HSR as well. The second, Franz Brentano, hangs onto BSS but muddies things up by including the minds of subjects. Then the third, Wilhelm Dilthey, breaks with BSS completely and argues, as does this book, that HSR is a different kind of science.

Any one of these three alone could fill a lifetime of scholarship. Books and articles about all of them litter the academic landscape. And these three are not the only possible choices for an HSR type like me to look at for historical roots. I think if I were starting life over again I'd study them all for years. In my day in graduate school we heard their names mostly as footnotes, if at all.

After dealing with the foundational figures, a second part of the book will ask: Given that the science has to be different, how can we think about evidence, logic and falsification in a way that fits the study of human beings better but is still "scientific?" A third part will then look at a major issue that BSS hides with its delusional notions of "objectivity." Human social science involves human funders, human researchers, human subjects and human audiences communicating with each other across the boundaries of their different worlds. How do we come to terms with these multiple and intersecting worlds as evidence is gathered and logic applied? Finally, at the end of the book, the

broader context of human social science will be explored with the classic BSS research of Milgram, as already promised, showing the HSR threads that weave through it, along with some final consideration of the many interests at play in the field of human social research.

The next chapter is the most difficult in the book. It's probably a poor choice of writing strategy to start that way. But John Stuart Mill lays the groundwork for mainstream human social science and at the same time foreshadows the problems that HSR will address. His work represents the foundations, the problems, and an introduction to the way solutions will start to take shape. If it gets to be too much skip ahead to Chapter Three and read on for awhile and then go back.

As they say in Spanish slang when it's time to get going, dále gas, which means "give it gas." My colleague from University of Houston days, Max Martinez, San Antonio pandillero turned professor of creative writing, used to say that all the time when he wanted departmental debates to get to the point. Given the nature of those debates, Max said it a lot.

Just for fun, right after I wrote those lines, thinking of Max, I looked on the Internet. There is a song called "Dále Gas," done by several groups. This one is from a version by the Dikers. Here is how it starts:

> Olvidar todo lo que queda atrás, si estuvo bien o fue fatal, nunca me resulta fácil.
> Esperar siempre se me dió muy mal, mientras los fantasmas ríen a mi espalda.

In my bad idiomatic translation:

> Forgetting the past, whether it was good or awful, it's never easy for me. Just waiting and hoping all the time bums me out, while ghosts laugh behind my back.

Then comes the refrain, dále gas, dále gas … That's more or less the attitude behind this book.