



Longbranch Research Associates *presents:*

# So-Called Experts

*a book always in progress & free*

by Stephan Michelson

## Chapter 00

### Introduction

*as of December 29, 2016*

Only an expert can deal with the problem.

Laurie Anderson (2007)

on the album *Homeland* (2010)

In the old pioneer days, we are led to believe, everyone was his own expert. There was the village blacksmith, the local preacher and the town prostitute, but every citizen could make a horse shoe, pray, and, well, whatever.<sup>1</sup> In 1934, Jane Jacobs visited her aunt in poverty stricken Higgins, North Carolina.

In the early 1700s, as Jacobs noted in *Cities and the Wealth of Nations*, its founders, three English brothers named Higgins and their families, possessed a wide range of knowledge and skills:

spinning and weaving, loom construction, cabinetmaking, corn milling, house and water-mill construction, dairying, poultry and hog raising, gardening, whiskey distilling, hound breeding, molasses making from sorghum cane,<sup>2</sup> basket weaving, biscuit baking, music making with violins ...

When Jacobs visited, whiskey distilling was the only remaining skill. As production moved to separate places (factories, offices), and became organized into small parts, general knowledge no longer sufficed, and disappeared.

Specialization at first followed the Adam Smith sense: It is more efficient if one person makes nails, one person saws lumber, and someone else is a carpenter.

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1 1776, America didn't have a single textile mill. There were no spinning mules, no water-powered looms. . . . Nearly every American woman, except the wealthiest, knew how to spin her own yarn and weave her own cloth... Rivka Galchen, "Fruits of the Loom," *New York Times Magazine* January 10, 2014

2 Nathaniel Rich, "The Prophecies of Jane Jacobs," (reviewing four books), *The Atlantic*, November, 2016.

Smith did not so much claim that such specialization made each worker's product better (in Smith's world all products of a certain kind were more or less the same), but that it made each worker faster. The specialist did not necessarily know something someone else did not. He may have been a little more skilled, but more importantly he was in work position (the fire was already stoked) or had the capital (the saw was powered by a water wheel in the running river) by which specialization and trade made all parties better off. If one person extrudes a pin and puts a head on it to make it a nail, he has to put one tool down, and take the nail to another station where he uses a different tool. Two people can make more than twice as many nails in the same amount of time, each doing a single operation.<sup>3</sup>

That view of the efficiency of specialization lasted into the twentieth century. In professions, the ancillary effect (specialization made one better at what he did) dominated the primary effect (specialization made the system more efficient). When the eye doctor told my father, Morris, to bathe his eyes in boric acid every night, he did so. For years. For decades. Then it was determined that boric acid is not good for eyes. The same doctor now told him not to do it any more. He stopped. They were specialists, those eye doctors. Therefore, to Morris, they were experts.

In 2008, "experts" told us that the greatest health deficiency in the American diet was Vitamin D. I had been taking Vitamin C and E supplements for over 40 years, and believed they had done me some good. So I started adding Vitamin D. But then in November, 2010, that information was reversed:

The very high levels of vitamin D that are often recommended by doctors and testing laboratories — and can be achieved only by taking supplements — are unnecessary and could be harmful, an expert committee says.<sup>4</sup>

Unlike my father, I am skeptical. Who are these "experts?" Do they understand statistical analysis? Was there a control group of people who did not take these supplements, and a treatment group of those who did? Do we know that the "treatment" group, those given the extra vitamins, actually took them? Were the statistical controls for other ways in which these people differed adequate, so we really can attribute any difference in outcomes to this "treatment," the additional

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3 Adam Smith, *The Wealth Of Nations*, 1776, available free on the internet. Smith was also aware that with specialization of tasks, workers become ignorant of the larger context of their work. Becoming better cogs in the production machine, they became less developed human beings. See Adam Smith, *The Theory of Moral Sentiments* (1790, reprinted by BiblioBazaar, 2011).

4 Gina Kolata, "Report Questions Need for 2 Diet Supplements," *The New York Times*, November 30, 2010, at A1. The other supplement is calcium.

vitamins? Were these “experts” influenced by drug companies who do not want us to think that over-the-counter vitamins are as effective as prescriptions?

Actually, none of the above. This “study” gathered no new data. It was what has become known as a “meta-analysis,” a review of previous studies with an attempt to come to general conclusions. Although synthesizing past knowledge sounds reasonable, it is fraught with the danger of not understanding the differences among studies. It is implicitly assumed that the expertise behind all of the previous work is comparable, so that one need only average them. Some of these studies might have been better conceived or effectuated than others. An average finding could be misleading, even outright incorrect. This reporter seems clueless.

Some people tell us that vitamin supplements are useless, we do not need them, and we cannot absorb them orally. The Vitamin D Council (oh yes, there is one) tells us:

The two main ways to get vitamin D are by exposing your bare skin to sunlight and by taking vitamin D supplements. You can't get the right amount of vitamin D your body needs from food.<sup>5</sup>

They also say that one can get too much of this good thing, defining “large amounts” of it as 40,000 units or more, per day. Most people who take this supplement—I remain one of them—consume perhaps 2,000 units of Vitamin D3, supposedly the most absorbable variety. I think, despite the *New York Times* headline, that one is well advised to take this supplement in the quantity most people take it. People who tell you otherwise are not experts.

In 1988, Surgeon General Dr. C. Everett Koop, America's medical expert, told us that our eating habits were as bad for us as our smoking habits. Referring to his 1964 report on the health effects of smoking, he wrote about his report on diet:

The depth of the science base underlying its findings is even more impressive than that for tobacco and health in 1964.<sup>6</sup>

Writing a book review in the *New York Times*, John Tierney reports “That was a ludicrous statement, as Gary Taubes demonstrates in his new book meticulously debunking diet myths, *Good Calories, Bad Calories* (Knopf, 2007).” He continues:

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5 <http://www.vitamindcouncil.org/about-vitamin-d/how-do-i-get-the-vitamin-d-my-body-needs/>

6 Quoted in John Tierney, “Diet and Fat: A Severe Case of Mistaken Consensus,” *NY Times*, October 9, 2007.

Mr. Taubes argues that the low-fat recommendations, besides being unjustified, may well have harmed Americans by encouraging them to switch to carbohydrates, which he believes cause obesity and disease.

Once again, the so-called expert medical advice was not only wrong, it was perverse. That is, assuming that current “knowledge” is a) correct and b) correctly reported by Taubes. And that Taubes’ meaning is correctly distilled by the reporter, Tierney. How would we know?

Seven years later, revelations contradicting former “knowledge” keep coming.

Many of us have long been told that saturated fat, the type found in meat, butter and cheese, causes heart disease. But a large and exhaustive new analysis by a team of international scientists found no evidence that eating saturated fat increased heart attacks and other cardiac events.<sup>7</sup>

Another meta-analysis, telling us that what we thought we learned from each of 72 studies, is contradicted when one looks at all of them at once. Is knowledge really that fragile? Are “experts” really that wrong, that often?

Everyone knows that aspirin is good for you, isn’t that right? An aspirin a day keeps the heart attack away? Yes, it may cause upset stomach, but we all know that, too. Except that some people tell us we are being misled. [NaturalNews.com](http://www.naturalnews.com) tells us a daily dose of aspirin does more harm than good.<sup>8</sup> Are they more expert than the people telling me to take aspirin daily?

The reversal of opinion about boric acid came too late to affect the tenor of my father’s life. He seemed to have taken it as a unique incident, not a lesson. Morris was an expert in law, and assumed that others were experts in what they did. It did not occur to him that, as he won most of his cases, other attorneys—most other attorneys—were not as expert as he was.

Other lawyers *did* understand that Morris had an expertise they did not. They began asking for his help in difficult cases. Morris complained that he then had to split the fees (a percentage of the award), but he understood that the referring lawyer had done his job, which was finding the right expert attorney to win the case. In that closed community of Boston lawyers, who had what expertise could be easily

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7 Anahad O’Connor, “Study Questions Fat and Heart Disease Link,” *The New York Times*, March 17, 2014 at A3. See also Mark Bittman, “Butter Is Back,” *The New York Times*, March 25, 2014 at A23.

8 [http://www.naturalnews.com/0033866\\_aspirin\\_heart\\_attacks.html](http://www.naturalnews.com/0033866_aspirin_heart_attacks.html).

ascertained. In the worlds in which most of us live, especially if we move from one locale to another, finding someone who can really do the job we need done is difficult.

Morris' college friend Harry Savitz, who had become a doctor, lived down the street from us. Harry came when we needed him, and our whole family was healthy. He must have been an expert. Or lucky. Morris would not consider repairing, by himself, our coal-fired furnace or, after World War II, our new oil-fired heater. That is what furnace-repair people did. To put up wall paper, he hired a wall paper installer. For a leaky faucet he called a plumber. To have the house painted, he hired a painter, his father's specialty.

Indeed, my grandfather Benjamin was a skilled, expert house and office painter. Though this was before there were water-based paints, nothing Ben did was unintelligible to a twelve-year-old. I could not paint as well as he did, but if I had to, I could get a wall painted, and preserve the brush by suspending it in water. I grew up, unlike my father, thinking that other people's expertise was intelligible, and questionable. Where my father accepted all expert advice, I learned to challenge it, to require that its basis be explained, and justified.

I mean no disrespect for people who perform tasks for me. Sometimes I do my own tasks, sometimes not. Even though the housing inspector would prefer that I not sweat-solder my own copper pipes, or cap together my own wires (in a junction box, of course), I have never failed an inspection for having done some of that work myself. For the most part, I hire others to get things done for me on Adam Smith grounds: because that is what they do efficiently, not because that is what they do better.<sup>9</sup> My wine-cooler repairer seemed unable to install a fan that would continue to work. He was using an exact replacement of the original fan that had stopped working. Why would a new one do better? On the internet I found a fan of the same physical size that was more robust and more powerful, drawing only a little more current from the same voltage. That was over fifteen years ago. It still works.

In many cases hired help does better work than I could, even though I understand what they do and could see myself doing it. I can learn any software, but is it worth the effort? No, I call in the guy who has seen a "Windows installer failure" before. A good rule of thumb is that it is not worth the time and effort to learn how

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9 In *Walden* (1906), commenting on having built his own house, Henry David Thoreau disparaged the concept of division of labor. Surely one does take some pleasure in building his own things himself, but when we think of the finiteness of our existence, we might forego some of that pleasure for the efficiency that comes from letting others perform tasks for us. Especially if they are real experts.

to do something you will do only once, if you can easily find someone else to do it for you.

A rule of thumb is not always the rule to follow. After all, I have had to replace my wine cooler fan only once, because the so-called expert could not. The lesson I ultimately evolved: Many experts, better than me at some task, are not so much better to be worth their cost. My job is to determine how expert an “expert” is, not only because I do not want to engage a poseur, but because even engaging a real expert may not be cost-effective.

### The Non-expert Expert

Many “experts” are not very good at what they do. Although I should have realized that from my father’s experience with opposing counsel, I learned it from being a statistical analyst. I, too, was involved in litigation. I found that the opposing expert (as well as applicants for employment with me) had no idea how to go about asking, never mind answering, relevant statistical questions.<sup>10</sup> I also convinced some attorneys not to use experts, because they could do as well without them. Again: The appropriate question may not be is the expert good. It may be is he (she) worth it.

Anthony Grafton casts a skeptical eye on attempts to scan all printed material into gigantic, searchable libraries.<sup>11</sup> He thinks first that it is too difficult a task, and second that perhaps something is lost when resources appear in other than their original medium. In these days of computers, tablets and smart telephones, that second objection seems silly. Many people are more accustomed to a computer screen than a paper page. Furthermore, a computer *is* the original medium of almost all printed material. We can still ask, beyond the technological and legal hurdles, is making all written work easily accessible a good thing?

M. C. Lang, responding to Grafton, does not think so. He calls collecting all text on a subject

a retrograde procedure, a reversal of the process of discrimination, which has, over time, weighed, classified, and organized the vast body of unrefined data to distill a finite yet evolving body of knowledge.<sup>12</sup>

Opposing the view that reviews are not enough, that original sources often contain information not understood by the reviewers, Lang believes that the experts

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10 Laurie Anderson continues: “. . . half the problem is seeing the problem”—which should be “half the *solution* is seeing the problem” or “half the problem is *not* seeing the problem.”

11 Anthony Grafton, “Adventures In Wonderland,” *The New Yorker*, November 5, 2007.

12 M. C. Lang, “Re: Future Reading,” *The New Yorker*, December 10, 2007.

have whittled down all previous suggestions into “a relatively small number of texts that have survived scrutiny and earned distinction.” Whose scrutiny is this? Oh yes, the experts’, the people who know it all and write it down in this distilled form for neophytes to take in. Only “those few texts,” writes Lang, should be “taken up by people of intellect, weighed by them in context, and put by them in perspective.” Experts will distill the knowledge of mankind, and students—people of intellect, experts-in-training—will then weigh what they have learned along with other subjects, and choose those nuggets that, they think, deserve the next level of “distinction.” I find this view so absurd that I am forced to wonder: Was Lang writing in irony? Did I fail to get the joke?

In science, we think, the world works just the way Lang describes. Knowledge is distilled and filtered down to the next generation. However, writing about the human genome containing the remnants of viruses, Michael Specter describes path-breaking article after article rejected by science journals.<sup>13</sup> Those acknowledged as experts didn’t get it. The filters do not always work.

Perhaps they do in art. Experts seem to agree that the African art that inspired Picasso (some say that he copied, but who does not learn from others and, to some extent imitate them?) is better than Picasso’s derivative work. The market thinks otherwise. Only “experts” think the “music” of Arnold Schoenberg or John Cage, for example, deserves repeating. Or Steve Reich or Phillip Glass, for that matter. Does the word “boring” come to mind? Not to music “experts,” of which, apparently, I am not one. “Experts” at Leonard Cohen’s record company (Sony?) rejected *Hallelujah*, deleted it from his album. One of the greatest songs ever written!

How many collections of “the best” blues, or even limited to blues piano, would include Walter Davis, who surely (I think) belongs there? You have to go beyond the collections, to complete per-artist record re-issues, to find him. People we know as “blues musicians” really played a variety of music, including dance tunes and Tin Pan Alley compositions. It was the “experts,” the record producers, who developed the concept of “race” records, and told black artists to stick with “their own” music, having no idea what their own music was. Much to our loss today.

Two words, with different meanings, are used as synonyms: credentials and expertise. For example, Hillary Clinton, running for the U.S. Presidency in 2016, was often described as “highly qualified.” No, she was highly credentialed. Had she performed well enough to be considered an expert? I did not think so.

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13 Michael Specter, “Darwin’s Surprise” in *Annals of Science*, *The New Yorker*, December 3, 2007.

After the November, 2016 election, people wondered about Donald Trump's selections for appointments. Was he looking for experts? Or was this his view:

Experts—those who have committed themselves to specialism and learning, who have worked at length within a field, and are sensitive to its rules and quirks—are sneering elitists who brandish their qualifications with the unfettered arrogance of a dictator . . .<sup>14</sup>

We should *not* leave selection of “the best” to “experts.” In field after field, the so-called experts get it wrong because, albeit highly credentialed, they are not experts at all. I published a book in 2006 showing, among other things, that a statistical method developed in the 1950s was still not known by people who need it, “experts” in statistical analysis in litigation. That method is not described in the textbooks these “experts” have read. It is the mastery of those textbooks that gives these people their “expert” imprimatur, but still in 2017 those books do not contain that information. Apparently most statistical “experts” have no capacity to find it themselves.<sup>15</sup>

I admit that, in my youth, I did leave an alarm clock or two disassembled, but in general I successfully figured out how things work. Years later, I was surprised when one of my nieces suggested that she would take a course on bicycle maintenance. A course? Isn't this something you just learn? Or can read from a manual or “How To” book? Not that we could fabricate a replacement sprocket, before 3-D printing, but that does not mean we could not figure out what one is, and even how a person might design and make one. You will not find, at your local bicycle repair shop, any “expert” who got that way from formal education.

I am not against compressing accumulated knowledge into a focused transmission, the essence of workshops or courses. I have taken workshops on dyeing, for example, that told me succinctly, and with hands-on practice, exactly what I, a perpetual novice at the craft, wanted to know. There are many ways to come by knowledge, and learning what others think they know is certainly a start.

However, what they think they know may just be wrong.

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14 Phoebe Luckhurst, "The New World Order Rule Book," *The Evening Standard*, November 11, 2016.

15 Stephan Michelson, *The Expert: The Statistical Analyst In Litigation*, LRA Press, 2006. I call the method “multiple pools analysis.” It is relevant when, for example, applications for a job are taken continually, but hires are made occasionally. No applicant actually competes against all others. What is needed is an analysis that constructs pools of those applicants who did compete against each other, yet asks questions about the characteristics of winners and losers over all of the pools.

Vice President Dick Cheney invoked Mr. [Fouad] Ajami as predicting that Iraqis would greet liberation by the American military with joy.

Ajami was such a non-expert “expert” that even the *New York Times*, in its obituary, looked for a reason people might have thought otherwise. They note that

his distinctive beard and polished manner lent force to his authoritative-sounding opinions.<sup>16</sup>

Similarly, there are thousands of supposedly authoritative “how to” books on any topic. Some impart useful information. Many, despite their appearance, do not.

There are also topics that do not lend themselves to such abstract “expert” advice.<sup>17</sup> I think that we learn best that which we seek, not that which is presented to us. And we learn best by doing. Sonny and Cher used to hang around recording studios, doing any task that was asked of them, gaining the knowledge and experience that led to their becoming stars without, let’s face it, having much talent. When we leave it to the so-experts to decide what we should learn, we may end up intellectually impoverished.

Three residents of Tennessee filed suit to prevent the Islamic Center of Murfreesboro from building a mosque on land which it owned. It is no surprise to find that some citizens of middle-Tennessee are irrational racists, vandalizing the sign the Center proudly placed on its land, announcing its plans. We rely on courts to preserve democracy, that is, to preserve the principles of democracy (such as the freedom to practice religion) even when minorities exercise them in ways the majority does not like. It was surprising that the judge allowed Frank Gaffney to be a witness for the plaintiffs:

[Gaffney] runs a think-tank in Washington, DC, and speaks often about the dangers of sharia (for whatever that is worth: on the stand he admitted “I am not an expert on sharia, but I have talked a lot about it as a threat”).<sup>18</sup>

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16 This and the preceding quotation from Fouad Ajami’s obituary, “Fouad Ajami Is Dead at 68; Expert in Arab History,” *New York Times* June 22, 2014. Can a person who has continually been wrong be an expert? “Expert” becomes a title, like Viscount or Lord, bearing no relationship to the person who carries it. The *Times* cleverly used the title while revealing its inapplicability.

17 Richard Bausch, discussing learning to write from taking lessons, or from how-to books, concludes: My advice? Put the manuals and the how-to books away.

That is, find the true experts (in this case, good writers), and learn from them by doing what they did—reading and writing. Richard Bausch, “How To Write in 700 Easy Lessons,” *The Atlantic* (supplement): *Fiction* 2010 <http://www.theatlantic.com/magazine/archive/2010/08/how-to-write-in-700-easy-lessons/308043/>

18 “An Uncivil Action,” 397 *The Economist* 8709:39, November 20, 2010.

Bad enough that people who say they are expert, are not; but Gaffney does not even claim to be an expert, and still is accepted as one. In Tennessee. And apparently also, as a high level appointee, by Donald Trump.

## **Understanding Expertise**

As I started remodeling houses, this attitude that the specialists I hired were not doing mysterious tasks, but understandable tasks, proved valuable. I learned that most problems are solved for the benefit of the solver, and that these are often not the best solutions for the ultimate consumer. Most tradesmen—this is well known in construction—make the job as easy as possible for themselves, not as good as possible for the home-owner.

So, for example, the plumber ran hot and cold water copper pipes under a set of low joists. To finish the ceiling, the carpenter then added a 1½ inch wood strip, effectively lowering it by that much. Would I have paid the plumber to drill holes for his pipes through the joists? Yes, gladly. I was not there, while the “expert” plumber I hired was not expert at making my house better for me, only at making his job easier for him.

The best solution for the consumer, however, may not be best for the community. That is how we have constructed a petroleum-driven economy, deciding, one person at a time, to live in the suburb and commute to town. Each individual also calculated, correctly, that with the number of large cars on the road, a small car was unsafe. We know that we would not have accepted “regulation” of automobile size, but surely we also know that had we all purchased smaller cars, we would all be better off. “Expertise” alone may not help us.

This is why good management affects outcomes. Within a decision-unit, management is able to make the decision that a tradesman would not make. It would be a better world if individuals not only could, but did think about what they are doing in a larger context, in the context of the ultimate product. I have no doubt that most people, were the incentives focused on a larger sense of outcome quality than profit, would make pretty good decisions. But they work in institutions that encourage the opposite behavior. They follow the company’s instructions to do the job quickly, rather than well.

I now own a weaving mill. I have smart, skilled, and good-spirited workers. I interject as little management as possible, because I have selected and trained my staff not to need it. My current crew understands what “quality” is, and how to achieve it. Convinced that this is what I want, they make decisions towards that end.

Previous crews did not have the same picture that I have in my head, or they did not know how to effectuate that picture, or they did not care to. They made decisions for their own convenience. One asked “Will we ever get this loom to work?” “That’s Stephan’s problem” another was heard responding. A worker who cannot own the problem will never solve it. A worker who will not take on problems to solve them is a worker I do not need, no matter what “expertise” he claims to have.

Over the decades since demystifying my grandfather’s occupation, I have reconfirmed this understanding many times: Although some tradesmen (and women) may have some skills and some tools that one can appreciate, few are actually expert at doing the job as I, the customer, the person paying for it, would have it done. And even though I do not have the skill of the real experts, I can understand what they do, and therefore how well they do it.

Consider the concrete house pictured here, built in Maine out of components provided by a Missouri company. By having the bottom of the deep roof over-hang the first and only floor, a dimensionality is added, and the lower walls are shaded.



It would not look as interesting or be as efficient without the overhang. Unfortunately, though, as you can perhaps see by looking at the space above the car in the photo, no truck can get close to any door. Or it does damage to the overhang. Pretty, sensible in concept, but dis-functional.

The informed consumer—if he is willing to spend the time—can direct the expert to produce a better product. The owner of this house says he is *now* informed about the faulty design, but was not when he purchased it. He will not get to do this again, but the construction company will. Have they learned the lesson of the too-low overhang? Probably not. They would have to consult the real expert, the person who lives in the house.

I discussed every operation with the electricians, plumbers and metal workers who set up my weaving mill. The HVAC installers would have run heating ducts almost against a glass block wall, diminishing the light. The electricians would have put conduit across window openings, as others had done before I owned the building. You have to know what your expert is expert in. My plumber would not have suggested filtering the water that went to my yarn-splicing machine. As the expert on splicing yarn together, I insisted upon filters.

Besides directing others, there is, at times, a better solution: Do it yourself. Rachael Ray, on the Food Network, has developed a cooking pan set that has an excellent feature: insulators around the metal pot lid handles. So you don't burn yourself when you remove the pot's cover. If we believe she thought of that—and I do—this kind of practical insight, not cooking, is her real expertise. It is the kind of expertise I suggest that you have, and should exercise. (How many pot cover handles have burned you? How many times have you grumbled at having to retrieve a hot pot holder, from the other side of the kitchen, wondering why they just could not insulate the handle itself?) Indeed, Rachael correctly declines the title “chef,” which denotes an expertise she does not claim to have. I am more likely to watch “Iron Chef,” which often displays dazzling expertise; but I am more likely to learn useful things from Rachael Ray, who tells me to wash my greens when I get them home from the store, and place them in the refrigerator in a closed container between layers of paper towels. That, I can do, although I can only gape and marvel at Iron Chef Morimoto's creations.

I use tradespeople all the time. If I need concrete, I bring in a truckload—the whole nine cubic yards. If I need a rock wall built, I employ people who have built them before and, hopefully, will want more business from me. I also talk to them about what they are doing, to some extent in their language. Is the rock wall going to have drainage (“weep”) holes? Will it have “stand-backs,” sections perpendicular to the line of the wall, to help keep it upright? From these conversations, the design changes. You do not have to be able to build the wall, but you have to know how it should be built, or your “experts” will build it to satisfy their needs, not yours.

This book provides example after example of the expertise that you, the consumer, can and should have to select, control or substitute yourself for the “experts” who would charge you all too much to provide you with all too little. Along the way I acknowledge and applaud real expertise. There are people who not only do what we could do if we had the time, but do things we would not think to do or know how to. There is no great secret to cooking a steak (turn only once, don't press

down on it), or aging one before cooking. However, most of us do not have facilities with the right temperature and humidity to age meat, just as most of us know how to balance a tire, but do not own a tire stand with a balancing bubble.<sup>19</sup> Sometimes we employ experts (or eat at a steakhouse) just to get access to those facilities.

Eating aged steak is in the category of letting specialists do what we want done because they do it better. Sometimes we go to experts simply because they do what they do efficiently and well, Adam Smith's kind of expert. That is why my dentist referred me elsewhere for a root canal. That specialist did nothing I hadn't considered, or that my dentist could not have done in principle, but the specialist did it all the time, and on that account did it well.

My first two mill crews, experienced all, kept us lurching from crisis to crisis. Gary and Shannon, employed at another mill, moonlighted at my mill (with permission) long enough for me to recognize and appreciate real expertise. With that knowledge I hired competent (as opposed to credentialed) workers. They have my mill humming—"cadillacing," they call it. I learned how to determine that they were real experts, not so-called experts.

### **The Role of Management**

The "experts" at Clemson University, where my partner Bethanne and I took a textile course, lacked hands-on practical knowledge. It isn't in the books. It won't be available on line. It resides in only some individuals who unfortunately do not take as their duty to preserve it for posterity. That is why, for example, weaving machines typically are placed too close together and run too fast. Then they break down. The workers on the weave-room floor understand the false economy of weaving at maximum speed and skipping maintenance, but the "experts" in management think the break-downs are a fixed, inevitable cost. They do not understand that the cost has been increased by their production practices.

Perhaps training is a necessary condition for expertise in fixing looms, but it is not a sufficient condition. Gary and Shannon took their training, but then learned in the way I would have, had I been a weaver, fixer or over-hauler for twenty years. They had expertise I could understand having, but could not have had, because I spent my life differently.

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<sup>19</sup> What ever happened to "dynamic" balancing? The weights now used to balance your tire are always equal, one on each side of the rim. No one knows if this is the best distribution. The whole subject has been downgraded, apparently too difficult to do. And so we live with dynamically unbalanced tires.

Barry, whom we hired later to be our overhauler, went to a high school that taught weaving basics and some skills, such as how to tie a “weaver’s knot.”<sup>20</sup> It may not have been clear in Rutherfordton who would go on to a career in textiles, but it was clear that some would, and the high school offered courses to that end. I could not operate my mill without Barry, who went on, post high school, to take specialized training in loom repair and maintenance. What high school today gives its non-college bound students such a head start? Manufacturing firms try to embed expertise in automation. Often that is sufficient. But then there are times when a human, an expert human, is required. Because the system has tried to eliminate them, they are hard to find.

From a broader point of view, additional real expertise would not only have made workers look better to mills, it would have made management look better. Mills did not take a broad view. Not only have mills not trained workers, they have replaced experienced workers with lower paid workers. Spreadsheets lead managers to think that all labor is fungible. As spreadsheet-based managers replaced textile-based managers, many American mills became inefficient and non-viable. Lower wages abroad cost us the textile industry? No. Look to incompetent management. If you think each worker is just a cell in a spreadsheet, you have no idea what “expertise” is, and therefore cannot inculcate it, reward it, or utilize it. And so manufacturing expertise disappears.

Phyllis, who was working as a pastry chef when I engaged her to make warps, had managed to gain multi-faceted textile mill experience, largely through threats to sue for gender discrimination. That is, she fought management all the way, just to learn how to be a better worker.

The point of this book is both to identify and to demystify “expertise” in a number of fields, and to point you, the reader, to places where others have done the same. It is also to discuss this real problem of gaining enough knowledge to operate in a complex world. We will discuss branding, the attaching of labels to things. We more and more rely on brands to assure us of a certain level of quality. Branded items are more expensive than non-branded, and may be better but, like experts, are they better enough to be worth the price? The difficult task is determining when that is so.

We are all managers of our own lives. I hope that at the end of this book you have more courage to take control of your own life, your physical environment, your

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20 Barry demonstrates this knot at <http://www.youtube.com/watch?v=ySpWWUa7NLA>.

financial affairs. Part of the lesson is to take control of the so-called experts, get from them what you can. Part is to evaluate so-called experts, and get rid of the phoneyes. Part is to find and appreciate the few real experts you will come across.

I will demonstrate that real expertise (and high-priced brands) may not always be worth paying for. You will take on some tasks you thought you could not do, and supervise others to have them done better. You will reject some offers of help not because the help isn't real, but because it isn't economical. Most of us below the multi-millionaire status, who do not have personal assistants, butlers and the like, had better spend some of our time and effort acquiring expertise in the things we want to get done in life. Most people claiming expertise in what you need do not have it. The real experts will not do it, or will not do it for a fee we can afford.

### **Experts in Court**

My book on statistical experts in litigation is over 900 pages long. It has been read by few. Simply summarized, the point of that book is that many, I mean *many* people who stride into court with credentials and demeanor to be certified as "experts," are not actually very good at what they do. Here is an example that is not in that book.

The Randolph Rose Collection produces sculptures based on, but not copies of, copyrighted works. Gary Price, whose works had been used in this way, sued but lost on his major claim, because the Rose works were not represented as Price's, merely as sort of look-a-likes. Rose agreed to stop producing sculptures "like" Price's, but Price alleged that the stress caused by their having done so reduced his productivity.<sup>21</sup> He engaged Michael Zumwalt as an expert, to calculate the amount of damages due to Rose's actions. Zumwalt reported:

I have relied upon the assumption that the decline in Gary Price's creative production of new works resulted from the time and energy that the infringement diverted from the creative focus of the artist and his studio and that the infringement diminished the Plaintiffs' view of the profitability of new works, thereby reducing the incentive to create new works.<sup>22</sup>

Zumwalt measured the number of new works produced by Price in the ten years prior to the alleged copyright violation, and in the three years thereafter. The

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21 *Gary Price Studios v. Randolph Rose Collection*, 2005 WL 1924733 (S.D. N.Y. 2005).

22 *Gary Price Studios v. Randolph Rose Collection*, 2006 WL 1319543 (S.D. N.Y. 2006) at \*3, quoting from Zumwalt's written report at 5-6.

average from the latter three years was smaller than from the preceding ten, creating, by Zumwalt's *assumption*, a basis for measuring damages.

Judge Haight was not impressed:

In my view, the average-per-year productivity loss theory advanced by Zumwalt cannot be tested within the context of the mysterious ebb and flow of an artist's creative powers.<sup>23</sup>

Actually, it *can* be tested, and quite easily. Zumwalt claimed expertise in econometrics, but accepted rather than investigated his client's claim. The ebb and flow of creativity may be mysterious, but it is also measurable. There are simpler ways to measure the difference between the latter three years and the earlier ten years, but as Zumwalt brought up econometrics in his testimony (albeit not engaging in it), I will use regression, the econometrician's favorite (and practically only) tool.

The number of sculptures made by Price in each year is listed in Judge Haight's opinion. I assigned to the variable "infringe" the value 0 for years 1992 through 2001, and the value 1 for the years 2002 through 2004. Estimating annual production, the variable "infringe" did have a negative coefficient of 6.2 (the productivity difference calculated by Zumwalt), but with a t-statistic of .95. No court would accept this result as supporting Price's claim.<sup>24</sup> The last three years' productions would not have been unexpected as random selections from the pre-damage period.

Suppose that, based on the last three measurements of your driving speed, some "expert" declares that you have slowed in your old age. No one drives at the same speed all the time. How unusual were the last three observations? To answer that, you might consider the different speeds at which you drive, taking such factors as the speed limit and traffic into consideration. When you do, you may not be able to distinguish the last three observations from the first ten. If your usual variation is 45 - 65 miles an hour, with an average of 55, the last three at 30 mph might be suspect (if not otherwise explained). If the last three were at 50, even though below average, they are well within your normal variation.

Zumwalt was no expert. Neither was the judge. In my book on litigation analysis I urge judges to use common sense, and not to think that they have to be statisticians to tackle statistical questions. Indeed, not even seeing this issue as one

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23 *Ibid*, at \*7.

24 Translating from the t distribution, 36 times out of 100 when the true coefficient was zero, we would still find a negative coefficient. A judge usually would look for five times out of 100, or an even smaller probability, to consider this coefficient "significant."

amenable to such analysis, Judge Haight nonetheless found his own way to a correct answer.<sup>25</sup>

I conclude that Zumwalt's proffered expert testimony is inadmissible, and I preclude it in its entirety.

In short, the plaintiff's "expert" was unmasked by a judge who did not have the technical skills of a statistical expert, and did just fine without them. As I urge in my book on the law, I urge readers of this one: Do not be afraid to question, and even reject "expertise" as it is presented to you. It may not be expertise at all, or it may be technical expertise misdirected at the wrong question; or, even if correct, it may be expertise you do not need to solve the problem at hand. Your responsibility is to know what you need, and one of the things you need is enough information and self-confidence to challenge so-called experts, even if they *are* experts in *something*.<sup>26</sup>

### Public "Experts"

I am happy to acknowledge that I am not alone in this conclusion. Take politics, a subject in which we see "experts" on television, and read in newspapers and magazines. Pundits have been unmasked.<sup>27</sup> It turns out that they are not so expert after all. Good thing, as we really do not want others making our political judgments, do we? We elect legislators and administrators to make political decisions. Do we think *they* are experts?

Would experts have gotten us into Viet Nam? Would they have voted for the flimsy sham called the Gulf of Tonkin Resolution? Hillary Clinton might have won the Democratic nomination for President in 2008, or the presidency in 2016, had she voted against President Bush's invasion of Iraq. She thought, as a political expert, that she had to act tough, vote with the hawks. The more expert judgment would have been to vote against an unjustifiable war.

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25 Gary Price Studios (2006) at \*9.

26 More and more, judges are finding, and declaring, that the person before them is not an expert. However, declaring a witness to be, or not to be an "expert" in a court is bound by rules—in federal court, by Federal Rule of Evidence 702. So, for example, Seventh Circuit Judge Richard Posner avoids contention whether the highly credentialed witness, Stephen T. Russell, is an expert under the law, while declaring his work to be unacceptably inexpert:

Dr. Russell is an expert, but fails to indicate, however sketchily, how he used his expertise to generate his conclusion. Mere conclusions, without a "hint of an inferential process," are useless to the court.

*Zamecnik v. Indian Prairie School District*, 636 F.3d 874 (2011) at 871.

27 Philip E. Tetlock, *Expert Political Judgment: How Good Is It? How Can We Know?* Princeton University Press (2006)

Colin Powell came to agree, years later, that his advocacy of our invasion, at The United Nations, was faulty. Was Powell not expert enough to see it then, or not strong enough to battle the so-called experts around him, urging him to believe that Iraq had developed weapons of mass destruction? He asks: Where were the doubters? But he was supposed to have been an expert, not a follower of so-called experts. The senate vote is evidence that there were indeed doubters. What a different world this would be if Powell had the misgivings all of my friends had, and found the courage to rely on them. Yes, we needed a more expert “intelligence community.” We also needed a more expert Secretary of State.

Some senators, Barack Obama and Bernie Sanders among them, did not believe the “experts” who convinced Colin Powell. They were right; Powell and the “experts” were wrong. During hurricane Katrina, experts would have gotten the school buses—reserved for evacuation—out of the low-lying New Orleans parking lot, where they were flooded. It seems strikingly clear that we delegate some of our most important functions to inexpert people, some of whom display their lack of expertise in their choices of to whom *they* delegate. We cannot decide all issues in town meetings. We must delegate decisions. It is therefore important that we elect people who delegate wisely. It is clear that we do not.

Although I generally follow “expert” medical advice, I did learn from my father’s experience with boric acid. For example, I have stopped taking a statin drug, even though many “experts” say they would decrease my chance of dying from clogged arteries. Others say that is not true or, if it is, the effect is so small that it is not worth the cost of the medication and its side-effects. I have effectively sided with the statin-doubters. Pharmaceutical companies try to scare you by mentioning everything that *might* happen to you if you do not take their medications, without telling you how likely those bad results are, what proportion of that likelihood is affected by the drug, and at what cost. And then, to protect against liability, they tell you what might happen if you *do* take their medication, again omitting probabilities or any basis on which that information could help you decide what to do.

Brian J. Ford takes on experts of a different kind than I do here. In *The Cult of The Expert*, Ford objects to the grants given to “experts” to “study” nonsense, and of course to explicate their findings in unintelligible prose.<sup>28</sup>

The experts who get grants to study important topics are often wrong, and could be determined to be wrong by someone who had access to their data and a

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28 Brian J. Ford, *The Cult of The Expert*, Corgi Books (1983)

mandate to evaluate what these experts are saying. Why would we then accept the word of the reviewer, who would inevitably be criticized by the original “expert?” Michael Crichton, for example—the late author of science-based novels—built a nonsense argument that there is not global warming and therefore man has not altered the climate.<sup>29</sup> Crichton may well have mastered other science fields well enough to use them as background for convincing tales, but he did not have the skill to understand statistically-based conclusions about climate. His pronouncements on global warming were as inept as it gets. Or do you think I am wrong about that? If so, see Chapter 14 of this book, please.

This book looks at a small scale. The ineptness of both our political leaders and their critics is disheartening, but perhaps we are too inept at picking them. Surely that is our own fault. Although much as we know we could do better at that task, I focus on our ability to do better at others. Here, I look to design in cooking utensils, in hardware, in all sorts of places where someone is called upon to make a decision—and makes a bad one. I look for expertise in the interactions we have in daily life, such as with bankers, real estate agents, store clerks, stock brokers. I will let others challenge the medical establishment, which surely has us taking too many prescription drugs, although I do discuss medical research, which is ultimately statistical. Politics is even more hopeless: It may be that we make bad decisions, but it is also likely that we are offered only bad alternatives. We do not even know how to talk sensibly about politics, as I will discuss in Chapter 12.

This book, rather than taking aim on a few important areas, takes more a scatter-shot approach. Rather than assume that you agree that most expertise is not what it’s cracked up to be, I demonstrate that point time and time again, in area after area. Skepticism is an important attribute of your life. You have to learn to be skeptical of “expertise” before you can be expected actively to counter it.

Skepticism is the scalpel which frees accessible truth from the dead  
tissue of unfounded belief and wishful thinking.<sup>30</sup>

I find so much acceptance of so much nonsense that I am content to start at the beginning: Let’s face the facts of inept “experts” first.

All around I see people with credentials but not the expertise the credentials are supposed to assure us they do have. Are even the credentials real? “Dr.” Gene Morrison practiced “forensic science” based on degrees he purchased and an amazing

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29 Michael Crichton, *State of Fear*, Harper Collins (2004).

30 Petr Skrabanek & James McCormick, *Follies and Fallacies In Medicine*, Tarragon Press, 3<sup>rd</sup> Edition 1998, at 152.

amount of chutzpah, for twenty-seven years. He testified in over 700 cases, before being found out.<sup>31</sup> He is an extreme example of a poseur, but again, not my focus. Why did the courts only question his credentials, not his testimony? Are people this easily fooled by so-called experts?

Most people pay too much for insurance—they have more of it than is reasonable—as evidenced by the profits of insurance companies. The car salesman is expert at selling you a car, but not at selecting which car is best for you, or determining a reasonable price. Ultimately, you have to make your own decisions about what works, what doesn't, what is good, and what is good enough.

It is up to you (in court, it is up to a judge) to know how to ask sensible questions, and control what expertise, if any, is useful to you. Like Michael Zumwalt, litigation “experts” often make no sense. They should be ignored, regardless from what platform they are expressing their so-called expertise. Developing one's own expertise in daily affairs is not only not difficult, it is essential. And so I do more than expose non-expert behavior. I give basic lessons in handling your own financial affairs, choosing your own kitchen implements, etc., because the experts will lead you astray.

“Wait!” you say. “Isn't that what ‘experts’ do? They tell you how to manage on your own? So aren't you, oh, non-expert advocate, acting like an expert?”

I am not advocating non-expertise. I am advocating real expertise, and warning that most people who claim to have it do not. As a statistical expert in litigation, I want clients to understand that they cannot do their work, or not well, without me.

The person who tells you how to get rich in real estate is getting rich from providing that “service,” not from the real estate market in which he claims expertise. I can understand moving from practitioner to teacher, but I can also believe that teaching to people who do not know the field is easier than practicing within it. Few of these “I will teach you how to get rich” schemes deliver on their promise. Remember Trump University?

Finally, there really are experts out there, and you may learn a thing or two from them. Some “experts” who give you basic rules for you to follow your own way

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31 Fiona Barton, “Dr. Phoney,” *The Daily Mail* (London), February 24, 2007. See “Bogus psychologist guilty,” a report on Morrison's trial and conviction, in *Metro* (London), February 22, 2007. See also Peter Warren, “The evidence mounts on the need for expert witnesses,” *The Guardian* (London), March 8, 2007, using Morrison as an example of the need for greater scrutiny of forensic experts.

are doing the same thing. Jim Cramer, on CNBC, tells you to diversify your portfolio, do not buy stocks on margin, and “ring the bell,” that is, sell positions on which you have gains.<sup>32</sup> Some of that—but not all—is real, useful expert advice. He also tells you to purchase gold, which is inexpert advice. I want you to judge expertise and use it when it is real and cost effective. And I cannot get wealthy doing this, as I charge nothing.

Do not “follow” Cramer for handling your basic financial matters, for building your retirement. And do not follow anyone else, either. Assimilate, consider, throw away what you find inappropriate and, most importantly, grow over time. You cannot become an instant expert in anything. You did not become an expert eighth grader on your first day in that grade. It took seven or eight earlier grades to get to the point where you could start to acquire eighth grader expertise, and then months to do it.<sup>33</sup>

This book is about becoming expert enough to do better than the net results of experts. Jim Simons, regarded by most cognoscenti as the sharpest knife in the Wall St. drawer, made over 40 percent annual returns for his clients. Can I get a piece of that? Well, no. You had to deposit a lot of money with Simons—\$20 million minimum—and leave it with him for years. As I will emphasize in my chapters on investing, there are places you and I just do not get to go, games we are not allowed to play. Perhaps life is not fair. On the other hand, not having to deal with small fry like you and me enhances these games’ success. They are not wrong to exclude us. Forget it. Let’s do what we can.

Division of labor still works. You cannot do everything. Even if your design for a kettle to boil water is better than those found in stores—and I am sure it is better than most—how would you make one? Nonetheless, going through the attributes such a kettle should have will help you buy one. You can be an expert shopper, if not an expert metal-worker. It all adds up to knowing what you do, and being good at it. We all shop, and so in Chapter 1 I do indeed dwell on the attributes you want in a vessel in which you will boil water. It is an example of how, with a

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32 See James J. Cramer, *Real Money: Sane Investing In An Insane World*, Simon & Schuster (2005).

33 Malcolm Gladwell, in *Outliers: The Story Of Success*, Little Brown (2008), tells us it takes 10,000 hours of “practice” to become expert in anything. A facile, simplistic, and surely too-small number, Gladwell’s weakness (he argues by a collection of anecdotes, providing no basis for his general conclusions); but it makes his general point vivid, Gladwell’s strength. A lucid writer, he conveys his points clearly, be they incorrect or correct, well-supported or fanciful. It is bizarre to find Gladwell quoted as if he were a subject-matter expert by yet another writer/reporter, David Brooks, in *The Social Animal: The Hidden Sources of Love, Character, and Achievement* (Random House 2011). Are reporters so deluded that they confuse reporting with expertise in the subject being reported?

little effort, we can see through the lousy designs most “experts” have produced, and maybe reward the few good designs out there.

I do not oppose owning mutual funds, for example, even though you could probably beat most of them. I am only against exclusive reliance on them. I insist that you call a licensed gas installer to extend your gas line to your new gas dryer. I also recommend being there when he does it, and discussing elements of this job with him, because you have expertise in your house that he does not have.

In 1961 I took the engine of my 1956 Mercury apart, and did a “valve job.” I would not do that again. Nor would I have anyone else do one. As automobiles have become more computerized, workers have become less expert in diagnosis, and even less expert in repair. More and more “expertise” is found in computer programs, not in the people who use them. That seems like an advantage to businesses, which can more easily find and train mechanics. It is a disadvantage to consumers, who find few products that exceed minimum requirements. The point of having your own expertise may be only to know what to do, what to delegate; but it also may be knowing what neither to delegate nor to do.

We live in a complex world. If you are not willing to engage in that world, to learn how it functions, to improve your skills throughout your entire life, to question every “expert” in every field, then do not waste your time reading this book. Sitting in the sun might be a more worthwhile activity, but as any skin expert will tell you, much exposure to sun is not really good for you, even though you do generate Vitamin D that way. If you want to be in control of your own life, this is a reasonable place to start. Not that I’m an expert at it, mind you . . .