

## Ethical Issues in Being an Expert Witness

*Joseph B. Kadane*

*Carnegie Mellon University*

**Abstract:** This Bayesian speaker will address the question of how to handle the variety of ways of doing statistics in the context of the responsibilities of a statistical expert witness. An expert witness is typically hired and paid by one of the sides in a legal dispute, but the fundamental responsibilities of the expert are to the court. The expert is sworn “to tell the truth, the whole truth, and nothing but the truth,” not “only those truths that help my client.” Experts may not be paid on a contingency basis (i.e., with compensation dependent on the outcome of the case). This talk addresses how the resulting tensions may be balanced.

Before we discuss the ethical issues, I give a brief discussion of the background of the institutional framework within which an expert operates under U.S. law.

An expert witness is different from a fact witness. A fact witness testifies to what that person saw, heard or experienced. “I saw the green car turn left and hit the man on the bicycle,” is the kind of testimony such a witness might give. By contrast, an expert witness is allowed to give opinion testimony to a court. An expert’s qualifications are examined and accepted by the judge before he or she may give such opinions. However the opinions an expert is permitted welcome to express in court are limited to those in the area of one’s expertise, in the case of most of you, to statistics. In particular, it is unwise and unwelcome to express opinions about the law, as the court will not have accepted you as an expert in the law, and regards that as something for the lawyers and the judge to discuss.

The principal legal distinction between cases is that some are criminal cases, while some are civil. In a criminal case, someone’s liberty (or life) is in peril; in a civil case, only money is at issue. In a criminal case, neither the prosecution nor the defense is obligated to disclose to the other what their evidence

will be, although the prosecution must disclose any exculpatory evidence to the defense. In a civil case, each side has the right to discover all evidence to be produced by the opponent. This includes the right to depose, that is, to question under oath, the other side’s experts and fact witnesses. Both parties have access to anything written by the expert (including notes, etc.).

There are in addition, various administrative hearings, each with its own set of rules. An expert should ask what the rules are that apply to the particular setting he or she will be involved in.

In almost all cases, the expert is hired by one side or the other, sometimes to give direct testimony, sometimes to rebut the testimony given by others, sometimes both. The attorney who hires you will make it clear what they want you to testify to.

The hiring attorney will also make it clear how you are to be paid. An expert, unlike an attorney, cannot have a financial stake in the outcome of the case, and hence cannot be paid more if the case is successful than if it is not. Hence most experts are paid by the hour. (A typical trap question is “Are you paid for your opinion?,” to which the appropriate answer is “No, I am paid for my time.”)

Sometimes, (in my experience rarely, but it does happen), an attorney asks for testimony that I feel I can’t give, because what is being asked for isn’t true. For example, I remember a case in which the attorney, defending a client accused of Medicare fraud, wanted me to testify that sampling of patient records could not possibly be used to ascertain whether excessive testing had been ordered, to be done at a laboratory owned by the defendant, the physician ordering the tests. I explained, to the attorney’s dismay, that such sampling could indeed be done, and if done correctly could save enormous amounts of investigator time. The case against the physician was settled by a plea bargain.

In this instance, I was telling the attorney, in private, the unpalatable truth so that she could

knowledgeably guide her client's case. I did my job correctly. Usually when such unwelcome advice is given, the expert's involvement with the case soon ends. The attorney is free to try to find another expert with a different point of view. However, the expert is not free to change sides, as the expert is presumably privy to client secrets.

Usually, however, what one is asked to testify to, is not obviously contrary to well-established statistical principles. In that case, an expert is likely to be asked for a report, detailing the sources used, the conclusions reached, and the support for those conclusions. In a civil case, this report would be made available to the other side, but not in a criminal case. In writing such a report, it is very important to understand what the legal theory your side is using, and possibly the other side's as well. You should understand what role the facts you are asked to substantiate will play in what the attorney is trying to argue.

In a civil deposition, the other side will ask questions. At the end, the attorney for your side may ask you questions to clarify the record if need be. In a trial, however, the attorney for your side goes first, asking you questions to lead you through your qualifications, your conclusions, and the reasoning that gets you to those conclusions. Then the other side gets to ask you questions. This is known as "cross-examination," and is often the most intellectually taxing part of the experience. You should be aware that the purpose of cross-examination is often to confuse the record, get you to say things you may not really mean, and, perhaps, to destroy your credibility.

In all of this, there is an underlying tension between your responsibilities to your client and your responsibilities to the court. The oath you take is "to tell the truth, the whole truth and nothing but the truth," not "only those aspects of the truth that help my client." Thus you must answer each question carefully and honestly. As described above, if there are weaknesses in your analysis, you should have explained them to the attorney who hired you before getting to court. If, on cross-

examination, a great chasm of logic opens before you, that's what cross-examining lawyers hope for. You will generally not have the opportunity to volunteer information unrequested by either side, however.

I favor the Bayesian approach to statistics. As a result, often the analyses I present are Bayesian. The reason I do so is that, if I am asked the question "is this, in your judgment, the best analysis that can be performed on the data," I want to be able to answer "yes." Indeed, if I can't answer "yes," what am I doing in court? Thus my obligation to the court to give my best professional opinion leads, because of my philosophical leanings, to give Bayesian analyses.

I have sometimes encountered the argument that a Bayesian analysis would be difficult to explain, and hard for the judge or jury to understand. I think it is my job to explain whatever analysis I do in such a way that the decision-maker, whether judge or jury, has a feel for what was done, and what it means. To report less than the real reasons for my opinions would be to take the attitude "You're too stupid to understand my full analysis, and I'm so inarticulate that I can't explain it to you." This is not a professional attitude with which to approach a court (or any other forum). I think a statistician is better advised to go to court reflecting what they believe to be best statistical practice, whether Bayesian, likelihood, frequentist or whatever. Part of what makes testimony an interesting and engaging activity is the clash of statistical styles that emerges.

Of course, the decision-makers, whether judge or jury, are not expert statisticians. Instead they are supposed to approach their decision with general common sense, and sort out whom to believe. They face the same difficulty in understanding statistics as they do with any other form of specialized testimony.

I find it useful to publish the story of many of my cases. Often there is a matter of confidentiality to be negotiated to do so. However, I find it useful to have in my mind that anything I say in court, I will write and defend to all of my statistical colleagues in print. This restrains my competi-

tive instinct to think and act as a lawyer, which in fact would reduce my usefulness as an expert witness.

In writing about my cases, one question I have had to confront is whether to mention the names of my opponent expert witness, particularly when I have criticisms to make. This is partly, of course, a matter of personal style and there is a reasonable view that would criticize the argument without using the name of the person making it. However, there is more to it than that. A foolish argument put forward by someone holding themselves out as a statistical expert reflects on our profession. We do not have formal mechanisms to certify statisticians (which I think saves us untold grief), so publication with names is the only way for statisticians to police themselves. It is fair, in that anyone who feels they are unwarrantedly criticized can write in response.

Testifying in court is among the most demanding work that I do, both technically and ethically. It requires thinking through not just the details of the case, but also how I stand philosophically about statistics, and how I stand ethically and morally. And that's why I find it a welcome challenge.