

GUARDING AGAINST ERROR

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(Editor's Note: This article is a synopsis of a presentation given by Special Agent Evan E. Hodge, Firearms-Toolmarks Unit Chief, FBI Laboratory, at the 1987 Seattle AFTE Training Seminar. Mr. Hodge is now retired from the FBI and is working with the Vermont State Police Crime Lab).

The subject of error is vital to all of us. It can be the difference between employment and welfare, between incarceration and freedom, between life and death. I think the basic reasons we commit error can be reduced to a very few. These few are:

1. WE ARE IN A HURRY - Pressure from the outside or inside.
2. WE FAIL TO CHECK THINGS OUT - We rely upon memory, guess or don't think through or are tired.
3. WE TRY TO BE HELPFUL - The case is too big to be inconclusive or an inconclusive answer would be embarrassing and tend to imply that our expertise isn't very good.

J. Edgar Hoover, speaking of his Agents, was once attributed with saying "I know people are human and will make mistakes, but I will not tolerate it". And he didn't. Whether you think that's humorous or not you must realize that in our profession it is a reality.

Let's say there are two types of errors and let's call them minor errors and serious errors. Minor errors we all live with by saying such things as: "Well - that's just a typo" or "For Gods sake, I'm only human" or "Haven't you ever made a mistake" or "That's why they put erasers on pencils", etc., etc.

Minor errors are usually caused by sloppy work. Causes of sloppy work are, going back to the three reasons: 1. We are in a hurry and 2. We fail to check things out and fail to think things through. When you are asked how many cartridges a weapon will hold, do you take the number from memory (OK for most revolvers), from the manufacturers literature, or do you fill up the magazine yourself? There is no doubt if you fill it up yourself, some if you don't.

A case comes in with a Smith and Wesson Model 13 revolver. We all know the Model 13 is 5R .100/.115", basic. Therefore, if we have a bullet with 5R .03/.185" we can completely eliminate a Smith, can't we? Not true. The case in point was caused by the broach being passed through the barrel twice, the second pass taking out .070" of the lands. This revolver was issued to one of our Agents. It came to our attention only after it was stolen and recovered. What are the odds against that? How many are out in the general population? We had a similar incident which was discovered on the range. The new Agent had trouble hitting the silhouette target. When the instructor had a problem hitting the silhouette someone thought to look down the barrel. Guess what, again two passes with the broach, this time completely taking out the lands. When brought to Smith's

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attention the representative said "Thank God it didn't get out to a customer". So, the point of all of this is that with their current quality control methods the Smith and Wesson rifling can range from a land width of .000" to the customary .100".

What about not thinking things through, not realizing the trial impact of what you are reporting. In the FBI Laboratory the organization of the evidence somewhat dictates the format of the final report. Items of evidence can be grouped as to origin, i.e. items from the victim, items from the scene, items from the suspect, etc., when listed in the report. However, when reporting your findings you should never report categorically such as "The submitted .30-06 caliber rifle did not fire any of the ammunition components recovered at the shooting scene". I did this once and later examined additional evidence from the crime scene, identifying a component with the weapon I had previously excluded. Needless to say I spent many hours on the stand explaining the chronology of my work. The lesson is never to be general in your writing if it is possible to be specific.

What about errors of omission? Perhaps error is not an appropriate word for this aspect, however, did you ever take a case about as far as you can and settle for inconclusive results because to go further would alter or destroy some part of the evidence? So, bowing to the sacred evidence cow you stop out of fear of criticism or some vague concept of tainting the total case. Examples of this would be not firing reloaded ammunition, which was submitted as evidence, for test specimens or for gunpowder deposition testing; not cutting toolmarked areas out of expensive doors or not cutting the end of a gun barrel off when only the muzzle has been damaged by intent or accident.

I submit that when you are not doing these things you are not doing your job, or you are not being allowed to do your job. When you look at physical evidence from the broad view you see that we always alter something in our examinations. Latent prints are removed, items are marked with scribes and ink. Guns are dusted, fumed, fired and sometimes beat with mallets. The whole point is to be able to justify and document what you do. I have been involved in two cases where we (firearms examiners) have cut the end of revolver barrels off. In the first instance the subject had taken a screwdriver or similar instrument and gouged out the rifling about a half inch back. A good try, but it didn't work. In the second instance the revolver, in a plastic bag, was thrown into some bushes and came to rest in a vertical position, muzzle down. It stayed there about a year. When recovered the muzzle was completely rusted from condensation in the bag, but the rest of the barrel was unaffected. We sawed off the rusted portion, test fired the revolver and made a good identification with the bullets from the homicide victim. We all know that this won't work very often. But, it does work sometimes, so don't be afraid to do a little cutting, after all what do you have to lose.

What about serious error? I define serious error as those which are so egregious that, at best, call for severe reprimand and at worst, destroy the examiners credibility and preclude his further employment in the crime lab. Most of us know someone who has committed serious error and the cause is invariably; 1. We are in a hurry and/or; 3. We try to be helpful. Usually serious error isn't fatal in that the examiner can no longer practice his expertise. But, it is always an error he will never forget and perhaps never be allowed to if it becomes public knowledge.

In early 1980, I re-examined a case from the Midwest area where a homicide subject, unknown to the investigators, had two .45 caliber pistols. Both were model 1911A1's. Pursuant to a consent search they recovered one of the pistols. The investigators knew that this was the murder weapon, but wanted lab confirmation - so they took it to the local lab. They told the examiner "we know this guy shot the victim and this is the gun he used. All we want you to do is confirm what we already know so we can get a warrant to get the scumbag off the street. We will wait. How quick can you do it"?

Well, they got their quick identification. The examiner later said he wasn't very happy with it, but it looked pretty good. The investigators took this new evidence to the subject, got their confession plus the knowledge of the second .45 caliber pistol which was the one the subject said he used. Well, of course the second gun went to the lab, was examined by the same examiner who then recognized that his first identification was a bit hasty. He gave in to investigative pressure. We all do this (give in to investigative pressure) to one extent or another. A hot case comes in, the investigators want to wait, want to look over your shoulder, want to see the ident, help you shoot the gun, etc. Do you take shortcuts? Do the words "the commissioner, or the director, or the captain wants to know right now" affect you? Of course they do, don't kid yourself. That's the time to kick the detectives out of your office, get a cup of coffee or Mylanta, relax for a minute or two and think about what you are going to do. Take your time. We aren't the only lab who is called upon to do referee work, but we do enough and that case is just one of many we have seen over the years.

How can we avoid serious error? Well, I see five ways to do this. They are through training, case organization, removing pressure, checking your work and using the partner system. Let's take them one at a time.

1. TRAINING:

What constitutes an identification? We all learn that before we are certified by our labs to work cases on our own responsibility. Do we all learn the same thing? The answer is yes, pretty much, but there are differences. We aren't computers programmed by the same person. What happens to those differences as time goes by? Well, we don't know, but we do know that we need continual training. We need to share the visual microscopic experience. Working with so many of you at Quantico over the past four years has been more of a training experience for me than for any of the school's attendees. I have learned what I previously suspected from my FBI Lab experience and that is, as a group, our mental concept of what constitutes an identification is remarkably similar from individual to individual. All we need to preserve this ad infinitum, is to work together occasionally.

2. CASE ORGANIZATION:

You can help yourself a lot, and probably do, by organizing your specimens in a logical order to facilitate their systematic examination. We number our specimens ourselves and do not rely on the investigators system which can be composed of large and confusing numbers. We then examine the items in the number sequence of our system. This way we don't forget anything. Of course our numbers are cross referenced with the contributors numbers in the report.

3. REMOVING PRESSURE:

Get rid of the investigators. Get a cup of coffee. Relax. Think things through. Know your tolerance on the microscope. My tolerance is about twenty minutes before I have to pull away for a minute or two, and I can't do that all day long.

4. CHECK YOUR WORK.

5. PARTNER SYSTEM:

I think this is the best way to guard against serious error and I recently instituted policy requiring confirmation of some ident's within the FBI Firearms - Toolmarks Unit. This policy is stated as follows:

All identifications which are not suitable for representative photographic depiction will be confirmed by another examiner who will initial the case notes.

The Unit Chief or acting Unit Chief will review all notes and not sign out any report not in accord with the above.

No examiner, including the Unit Chief or acting Unit Chief will sign out his own report.

Obviously, this means that it is now our official policy to take photographs which are representative of our identifications. Why? First, it documents what we saw through the microscope. Where would Monty Lutz and John Ward have been in their confrontation with Robert Steindler if they hadn't taken photographs of the anvil marks identification to prove Steindler was totally wrong in testifying that the .22 caliber cartridge cases were not fired in the suspect weapon. Second, it provides a method of quality assurance, a check for the reviewing supervisor. Third, it reminds us of what we saw before we testify. And, lastly, it will provide us with a court exhibit if needed. We do not require court exhibits routinely. That is left to the discretion of the examiner and the requirements of the prosecutor.

What can you do if you are an isolated examiner, if you don't have a partner to check off on all those non-photo ident's? It depends on how much time you have. You should photograph all your ident's when they lend themselves to that procedure. When that fails you can get in your car and take the evidence to the nearest lab and I strongly recommend this. The least you can do is sleep on it and re-check it the next morning when you are fresh. If it doesn't look as good you had best report similar GRC's, no conclusion. Even if you would rather be tarred and feathered than to ever take a photograph, and I know a lot of you feel that way and have good arguments for your position, you can still use the same criteria. That is simply to get a second opinion on those ident's which do not lend themselves to good representative photographic depiction.

In conclusion I want you to remember that you are most likely to make a mistake when you are hurried by pressure, when you fail to check things out yourself and when you try to be helpful. Remember **ALWAYS** that your reputation is more valuable in the long run than any single conviction. Once you blow your reputation you won't contribute to any convictions ever again. Remember always that every case you work may very well be re-examined by some liar-for-hire, so be sure. Make him blow his reputation if he contradicts you - force him into flipping burgers at McDonalds for a living.