Just Erroneous Identification_2020 Case Studies_148

Intro [00:00:05] Now this is recording. RTI International Center for Forensic Science presents Just Science.

Intro [00:00:23] Innovative technology, current research and actionable strategies to improve the criminal justice system. In episode seven of the case study season, Just Science sat down with John Vanderkolk and Marcus Montooth of the Indiana State Police to discuss erroneous identification and the Lana Canen case. In 2005, Lana Canen was convicted as an accomplice for the robbery and murder of 94-year-old Helen Sailor. After serving eight years, her conviction was overturned, and she was released from prison. John Vanderkolk and Marcus Montooth were working for the Indiana State Police at the time that her conviction was being overturned. Listen along as they discuss the need for updated training, the value of technical review and the wrongful conviction of Lana Canen in this episode of Just Science. This season is funded by the National Institute of Justice's Forensic Technology Center of Excellence. Here's your host, Dr. Mike Planty.

Dr. Mike Planty [00:01:22] Hello and welcome to Just Science. I'm your host, Dr. Mike Planty, with NIJ's Forensic Technology Center of Excellence, a program of the National Institute of Justice, here to help us today with our discussion, are two guests, John Vanderkolk and Marcus Montooth. Welcome to the podcast, John, Marcus.

John Vanderkolk & Marcus Montooth [00:01:39] Thanks for having us.

Dr. Mike Planty [00:01:40] John is a retired manager for the Indiana State Police Laboratory. John received a B.A. in Forensic Studies and Psychology from Indiana University in 1979. He recently retired as laboratory manager at the Indiana State Police Laboratory, Fort Wayne. He'd been at Indiana State Police trooper, crime scene investigator and criminalist, forensic comparative scientist. John was trained in latent print, shew, entire print, firearm and tool mark, and fracture examinations. Also joining us is Marcus Montooth. He's a supervisor in the latent print identification unit for the Indiana State Police. Marcus obtained his bachelor's of science degree in biology from University of Evansville in 2001 and has been employed as a forensic scientist with Indiana State Police since 2003. So both of you have a lot of experience in this space. He is an IAA certified lab print examiner, and ASCLD certified technical assessor. Our topic today is focusing on erroneous identification through fingerprint. So before we jump into this case, it's real world case that was really going to, you know, identify some of the challenges here and some of the processes that are in place to correct some of these errors. It's important to consider how forensic examination has really evolved even over the last 20 years in terms of the expectations around experience, qualifications and standards. But also, as we see in this case, challenges still remain and continue to remain in terms of the pressures many examiners face in terms of workloads, external pressures and just the natural biases that humans have that can seep into their work. Maybe starting with John, you know, could you provide a perspective, you know, on the state of the field and what challenges you're seeing?

John Vanderkolk [00:03:26] Well, I've seen many changes over the years. I started as a latent print examiner in 1985, and I'm still active in the field. So I've lived through the changes, probably the biggest changes, training. Back in 1985, I was basically taught there's no minimum number of points to make an identification, but don't go less than eight because we don't. So I was confused by that. But luckily I was trained in the other comparative science and I moved forward with pattern comparison or comparison of

shapes, and I transitioned over to fingerprints with that philosophy. And basically, that's how I teach now, comparison of shapes. But with that, I lived through the changes from a very dogmatic approach to identification to more of an awareness that humans can be wrong, fingerprint experts can be wrong. And what do we do if we determine an error in the examination process? So I've lived through that. I've experienced it very closely. And that's why we're here today to talk about changes in the examination process and how do we correct errors when they happen either within our laboratory or within the science as a whole.

Dr. Mike Planty [00:04:43] Marcus, your thoughts?

Marcus Montooth [00:04:45] Since I started in 2003, I would say the biggest change that I've seen has been in documentation. When I started, we had very good training, but our documentation was literally a line or two written down. You know looked at a lift, late in a value, ID to so-and-so. And now that documentation is charts, a detailed analysis, you know, with written word as well as the charts, identification charts, verification charts, technical review, all of that is documented now where we weren't doing that before. And in 2003, the feeling in latent prints was latent print examiners don't make errors except maybe technical errors. And we've made a huge change in that to recognizing those errors. And in the Indiana State Police, we even tracked those errors that we all make that we find through our technical review.

Dr. Mike Planty [00:05:38] I mean, so this whole notion about documentation and standardization around the field, it's coming from, I assume, pressures within, but also pressures from external, right? When things fall apart in court cases or when you have these types of severe cases where somebody has been charged and found guilty, when in fact the evidence doesn't really support that guilty conviction.

Marcus Montooth [00:06:04] Yeah. The case we're going to talk about today, that had a profound effect on the way I looked at things. The latent that we're going to talk about, there's absolutely no reason it should have made it to court and through court. So those are the things we need to prevent. That's the pressure internally to make those changes. But there's also been external pressures as well. A lot of that comes from accreditation, you know, A and AB standard that we're accredited under now. There has to be able to have enough documentation that another examiner can come along and see what you used for your ID exclusion comparison. And that's where the charts and the detailed analysis comes in.

John Vanderkolk [00:06:43] Yes, documentation is a key to the change in the examination process. In 1985, my challenge was to get my examination notes basically on one piece of paper. I wrote in abbreviations and everything fit on one piece of paper. Now, Marcus, a typical exam might be how long? 50 pages. 40 pages, depending on the number of lifts you have, the number of standards you have. It's a much more detailed process to document the exam today than back in my day. Also, back in my day, we were not as transparent with our notes, nor we as open with our notes. Today, the Indiana State Police Laboratory puts are many of our quality assurance type documents on the public website. Marcus you might be able to describe that more than I can, but how many documents do we put on our public website that relate to the examination process?

Marcus Montooth [00:07:43] All of our physical evidence bulletins. So communications to the customer, the agencies submitting, our test methods. I'm sure our quality assurance

manual is on there as well. We put it out in an annual report detailing everything that we did in the previous year. So, yes, we're very transparent.

Dr. Mike Planty [00:08:00] Excellent. This case that we're going to talk about just goes back, you know, just a few years. And we're not talking a 1956 case, we're talking one that happened and what was it, 2004? Let's walk through this real court case. You know, the whole situation, the incident.

Marcus Montooth [00:08:16] So in November of 2002, there was a 94 year old woman, Helen Sailor, that was killed in her apartment in Elkhart, Indiana. She had been strangled. Some things had been stolen from the apartment, and it kind of been ransacked with stuff thrown around. The police did an investigation and early on, they didn't have any leads. There was no forced entry. So they really didn't have any suspects until another year when they picked the case back up and started talking again to people within the apartment complex. They did have some more evidence that they process for latent prints.

John Vanderkolk [00:08:57] In October of 2003, a laboratory manager at the Indiana State Police in Fort Wayne, I received the case from the agency. And at that time, we did not have an active latent print examiner at Fort Wayne, so our backlog was building. So I received the case in and it sat at the state police lab in Fort Wayne for a few months. About 3 or 4 months later, I received a request to withdraw the exam. So I did and gave the case back to the agency without any examination having been conducted. So my role was almost ready to be completed at that time until it came back to us.

Dr. Mike Planty [00:09:38] So, John, when you get a submission to withdraw a case, maybe back then, but are there are some determinations as to why a case would be withdrawn and not need the services of the state lab?

John Vanderkolk [00:09:50] There was no reason for me to necessarily ask the agency why they chose to withdraw the exam. It's their investigation. It was their request to submit it to us. It's their request to withdraw it. They knew we had not started the exam, so we withdrew it and gave the case back to the agency about October of 2003.

Dr. Mike Planty [00:10:09] Pretty typical process even to today, right? I would imagine.

John Vanderkolk [00:10:13] Yes. One of my primary duties as laboratory manager is monitor case activity, especially like drug chemistry cases. They often plead before we examine the evidence, so therefore we withdraw. I believe that was in 2003 that they took some more evidence from the scene and themselves processed it for latent prints. One of the latent prints was identified to Lana Canen by an examiner out of, John, is this right, Elkhart County?

John Vanderkolk [00:10:43] Correct. The examiner they used was from Elkhart County.

Marcus Montooth [00:10:47] So it was an Elkhart PD case. And they originally submitted the evidence to us. We don't believe we got that I.D. print in with the original evidence. It went to Elkhart County, where an examiner there looked at it, made the I.D., and then it made its way back to us in (indescinerable) to run all of the prints in the case through AFIS because the comparisons had been done.

Dr. Mike Planty [00:11:11] And so when those prints were runned, were there AFIS hits on the suspects?

John Vanderkolk & Marcus Montooth [00:11:16] No.

Marcus Montooth [00:11:17] They were not. And in fact, the print that was identified to Lana Canen was deemed not of value in that exam by our examiner.

John Vanderkolk [00:11:27] Would that have been not a value for examination purposes or not a value for AFIS entry? There might be a fine line, a difference.

Marcus Montooth [00:11:35] There is. To the best of my recollection, it was not a value for comparison.

John Vanderkolk [00:11:41] I could talk at length about the gray area, at the threshold of judgment making. So that would be a topic for another discussion. But the great struggle of forensic science, comparative science is the examination of those threshold prints. Is it a value or not a value? Is it an identification or inconclusive? As Marcus talked about documentation of the exam process, those threshold prints are the ones that need more documentation helping to understand the final decision and also to help understand the whole examination process. The critical comparative measurements need to be documented on those threshold prints.

Dr. Mike Planty [00:12:26] And for our listeners, could you explain what you mean by threshold print?

John Vanderkolk [00:12:30] The threshold print. Let's use the traditional three conclusions. Back in that era, and maybe even in this era, identification, exclusion and inconclusive. When you're close to a comparison at the threshold of inconclusive to identification, I'm going to call that a gray area judgment making process. How do I examine the print? It's all based on the print, the examiner, even the daily variables of how the examiner feels that day. Is the examiner tired like late in the afternoon, or does the examiner come in fresh in the morning and start over? There are numerous variables. My colleague Austin Hicklin is publishing a paper that talks about all sorts of variables within the examination process from the examiner to the evidence. It's a wonderful paper. Yes, those threshold prints need more documentation.

Dr. Mike Planty [00:13:30] Great. So they have the print. They had the incident. It was a pretty much a cold case until after a year a print was identified. It was determined by the investigator and Elkhart County sheriff department that there was a match. What were the problems related to that match that then surfaced later, eight years later?

Marcus Montooth [00:13:52] Lana Canen and it took her a while to get somebody to take her case once she was convicted. I believe six years after her conviction, a defense attorney agreed to take the case and she agreed to take it because Lana continued to deny ever being in the apartment. And the defense attorney stated that, you know, normally a defendant makes up an excuse for having been there. They may say, you know, I was there, but it was the day before to help her carry on groceries or something, but Lana continued. She even testified in her trial that she had never been in the apartment. So they got that, they had trouble getting any information about the print. The courts wouldn't give them the original evidence. They were allowed to take a few pictures of it, and they had a PowerPoint presentation of the ID that was used in the original trial. From looking at that PowerPoint, they gave it to a fingerprint expert and it was determined that it was not Lana Canen's print. So then they took that back to the courts and the court

basically said, well, you have your expert and the state has theirs. That's not a reason to relook at this. So it continued, they continued to fight it. They ended up getting, I believe, a post-conviction relief hearing on it. And they made a presentation to show to the original examiner. And at that point, the original examiner said, I did make a mistake, and you would think that would be the end of it. But then the court said, no, let's have the Indiana State police look at the print. And that's where we got involved. It is interesting to note that in the original trial or before the trial, they had a fingerprint expert, defense expert look at the ID. I've seen varying reports as to whether he agreed with the ID or it was too much, and he said he couldn't make a determination. But either way, it wasn't contested and he wasn't a qualified latent print examiner. And I've had people look at some IDs that I've done in case work, defense experts. And a lot of times they're private investigators. They don't have the proper training that we have this day, to this day that John was talking about. Maybe they were at a week training 30 years ago on comparing latent prints, but they don't have the level that latent print examiners have.

Dr. Mike Planty [00:16:07] Yeah, that's a really interesting point because there are so many points where. You know, it was only through the persistence of Lana and this attorney to really push the case through. So in terms of the checks and balances, and then when you think about the original court case, the checks and balances there. Right. So in terms of the original examiner's determination that this is unique identifier, unique identification of Lana on the medicine bottle, the pill bottle, was there a check and balance within that agency? It doesn't look like. But then you have the defense attorney right, as a check against the expert, and that failed. Their expert didn't investigate properly and the whole qualification. So we talk about an expert witness. Everyone has expert, but there are so many shades of experience, as you're stating here. And that was another issue with this examiner at the beginning was the qualifications, but also the experience that you didn't necessarily have to make those determinations.

Marcus Montooth [00:17:02] There were also pressures put on him by the submitting agency that he has admitted to, pressures on time, pressures on making the identification, biases involved. He knew ahead of time that she was the main suspect, that they thought this was her fingerprint. He didn't have the qualifications either. He had compared ten prints, but he had not done latent print examinations. And a very good point you made, there was no technical review of his work done. He was a one man operation, which to me, that's the biggest threat to latent print examination right now are those one man operations at Small PD's throughout the US because none of their work is getting checked typically.

Dr. Mike Planty [00:17:45] Only by the defense. Right. And then the quality defense, you know, you're leveraging all of that. I mean because this is getting on the social sciences, right? It's about the social science behind examination. You would have a very standardized process for any forensic examination. But you have things like these biases, these pressures. You have a small shop where the forensic examiner is having conversations about the case with the investigators. Right. And that relationship and whether there should be some sort of wall. But how do you fix that? Because the 18,000 law enforcement agencies in America. Right. We are decentralized United States when it comes to law enforcement. So what types of protections are afforded now, you know, for these types of situations John?

John Vanderkolk [00:18:27] I would say the best protection is the accreditation process by the laboratory or agency. The accreditation process is the peer review process of other forensic science laboratories, doing a documented review of the management and

documents within our particular laboratory. I find that to be the best program in that we have to meet community standards and how we approach an investigation and approach an examination and also document what we do and how we do it. I like the accreditation process tremendously well and Indiana State Police has had the benefit of being accredited since 1991. So I've lived through the process of not being accredited, becoming accredited for the first time, and each series of reaccreditation, we strive to improve our overall process of the entire laboratory. Our crime scene program is now accredited to.

Dr. Mike Planty [00:19:24] In the technical review process, Marcus, you touched on that. Can you say a little bit more?

Marcus Montooth [00:19:29] Yeah, we have another examiner look at a case now. They know what the original examiner did, but they look over all their notes. They look through every lift to see if there's a latent print they missed. They relook at every comparison and every determination of identification or exclusion. That is separate from the verification process. So when we have an I.D. that's made, we have three sets of eyes looking at it, at minimum in every case. If it's an AFIS hit to an unknown individual from the case, we have another set of eyes looking at it for. So every step of the way we're checking to make sure that no latents are missed, no IDs are missed, no bad ideas are made, no exclusions are missed, All of that. And with a one man shop, you can't do those unless you're having another agency look at them. We started, I believe, somewhere around 2011 doing the technical review with every case, and I'll be the first to admit I was against it from the start. I started with those one page notes. I didn't like the process to start with, but from data that I've collected since 2013, there's no way I would want to be working in latent prints without technical review right now.

Dr. Mike Planty [00:20:47] So that is a huge investment from an organization and agency. But given what's at stake, it seems like a really responsible reaction.

Marcus Montooth [00:20:56] Yeah, and the cost to the agency, I'm doing it right now. We rotate our technical reviews. We do everything on a computer, so someone in Fort Wayne can review my work five hours away. But what we do we take one analyst off the bench every month and they just do technical reviews. If they have downtime, they'll work cases. But their job that month is to do technical reviews. So we lose an examiner a month.

Dr. Mike Planty [00:21:21] So when we talk about this whole process and, you know, it's really about redundancy and, you know, we're not counting on just one. But when an error does happen, you talk a little bit about the process of trying to uncover the source of that error. We touched on it in this case, and there seems to be a lot of straining points about how to get access to evidence or, you know, who would be appropriate to review a case. But, you know, what's the best process when we do find an error?

John Vanderkolk [00:21:50] I say you do a forensic autopsy on the entire case would be the best way to go about determining what happened to cause the error or contribute to the error. A forensic autopsy would start basically at the crime scene. How was the evidence process collected at the crime scene? How was it submitted to the lab? Could it be a clerical error mislabeling something? Could it be like a clerical error of switching an item like a lift that was not marked properly, but you mismarked it before you turned it in. Could be examiner, made a clerical error in the examination process of mismarking something or mislabeling something. So that's the importance of documentation and review of documentation of the notes is to try to do a forensic autopsy if something did go wrong. I know that Marcus does many, many forensic autopsies, maybe with clerical errors

or maybe failed to locate a latent print of value. So he might do many forensic autopsies during the technical review process. We also have a quality assurance program during the exam process. Let's say the threshold print. Some people say it's an ident, some say it's inconclusive. How do we resolve that issue? The key to that is have a plan before that issue happens in front of you. Know what the document plan is before you hit that crisis mode of what do we do now? So we try to mitigate those errors before we publish the final report. Now, Marcus can describe how busy he is with those mini forensic autopsies.

Marcus Montooth [00:23:29] Yeah, we collect the data on every error that's made, and I separate it out into significant, non-significant errors. So non-significant would be you spelled something wrong? Maybe you mislabeled the print in one place. But overall, you got it right. It was right in the report. A significant error would be a failed to locate, calling an ID that wasn't missing a latent the value that was there. And we've been consistent since 2013 of a rate of about 2.5% of our cases have one or more of those significant errors. And that's why I say I wouldn't want to do latent print casework without technical review. Having more people look at it is the best scenario. We also use consults quite a bit. When I first started, it was you look at this light and you make your determination and move on, send it to the verifier or go on to the next case. After doing some contract work where I was sitting in an office with about four other examiners and we would look at prints and if you had a question, you just turned around and asked the guy next to you, you know, do you think this one is of value? What are you seeing here? Am I missing something? And that really started the consult process within the Indiana State Police, working it almost as a collective. Also separating that out, if I ask John to consult on a print, then I don't use him for verification and he does not technically review the case. I'm just using his information to help me make my determination.

Dr. Mike Planty [00:24:59] You know, given these, you know, unresolved pressures, these pressures that always kind of seep in, having those types of processes in place reduce error greatly. When we think about where we need more work, more research in this area. You know, you mentioned a paper earlier, John. Where are you seeing more attention to really help reduce these types of erroneous identifications?

John Vanderkolk [00:25:22] I'm a very big advocate of research of the human judgment making process. I recruited Dr. Tom Busey, in 2002 after the Judge Pollak Daubert ruling saying we don't need experts to explain fingerprints to a jury. So I said, yes, we do. So I recruited Tom Busey to help us explain how experts make their decisions, how novices make their decisions. Basically, all the research he's been doing, he demonstrates differences between the expert process and the novice process. And he's doing tremendous research. We were also putting together a book, a sourcebook, let's call it, through RTI, the chapter I'm involved with Heidi Eldridge as the primary author. And John Steinbeck and I are the consulting authors for that chapter is training and error making. So we address that errors in the training process before we start doing casework. The training process needs to be challenging enough so that the trainee does make errors in the examination process as a trainee, so we can consult on that process and training and determine, let's say, what went wrong. Like one of the examiners I've worked with, one of Marcus's trainees, that I often consult Marcus on the training and participate in it. Mistraced a ridge and was, let's say, one ridge off in the document process of a threshold type print. While I appreciate making those types of errors in the training process so we can go back in time and say, let's talk about why you mistraced that particular ridge and got one ridge count off. So it needs to be challenging.

Marcus Montooth [00:27:04] But I have one particular training that I give to all trainees that is built for them to fail, and the entire purpose of it is to go back like John's talking about and see, Why did you miss that? What were you looking at? All my trainees hate it, but I do. I do think that it helps them in the long run to understand that process of what went wrong.

Dr. Mike Planty [00:27:30] Yeah, I mean, I guess that's the whole point. Through failure, you learn. And so again I'm going to touch back on that differences between experts and novices and, you know, that whole what are some of those factors that distinguish between an expert and a novice, and how does that play out in the presentation of forensic evidence to the audience or person?

John Vanderkolk [00:27:52] The expertise is developed over time, exposure to physical stimuli. When I recruited Tom Busey in 2002, one of the first questions he asked me, Can you tell if a fingerprint upside up or upside down? I said, oh yes. First thing I do in the exam process is turn it upside up. He said, Why do you do that? I said Well all the fingerprint cards are usually upside up, so I want the latent print to be upside up when I compare prints. So he generated EEG exam of the human brain for experts and novices and did a study showing fingerprints upside up, upside down, houses upside up, upside down, faces upside up, upside down, either very clear or very poor quality. So he can measure the EEG, the electrical effect taking place in the human brain as the participant is viewing those images. He found dramatic differences. And when the novice brain kicks in for fingerprints versus when the expert's brain kicks in for fingerprints, I cannot perceive that kicking in. But his measurements showed a tremendous variation between experts and novices, recognizing fingerprints being upside up or upside down. So that was the start. He also did other studies on behavior studies and time studies. How do experts do versus novices based on forced choice, determination, time studies. Do demonstrated experts do much better than novices on force choice determination? We did eye tracking studies. Eye tracking studies were my favorite. I'm waiting for him to hook up eye tracking studies with EEG studies. What do we do when we hit the threshold print then go beyond the threshold and make our final determination? Does the EEG kick in differently electrical activity on the eye tracking? Experts and novices were demonstrated to have different strategies of analyzing the latent print and standard and also going back and forth between the two. So he's demonstrating differences in various strategies of studies.

Dr. Mike Planty [00:30:03] So that's really key and important because the way an expert is looking at a latent comparison is very different in terms of a novice. And so trying to communicate that to a jury may present a different strategy, like you're saying, in terms of effectively convince a jury that this is an identification or a match.

John Vanderkolk [00:30:24] Yes. The critical comparative measurement, the more I understand and convey the human judgment making process, the better I can explain the process going on in my brain, my vision system, the better I can explain that and understand it. Maybe the better I can explain comparative measurements of each individual ridge and their relationship as an aggregate of comparative measurements. So it's the individual comparative measurements of ridge to ridge, texture to texture, shape to shape. Then it's the aggregate comparative measurements as a totality of judgment making, individual judgments then totality and judgment.

Dr. Mike Planty [00:31:06] So when we look forward, you know, forward thinking in terms of this research and looking at how people process these different pattern recognitions. Where are you seeing other types of, you know, challenges?

John Vanderkolk [00:31:18] For challenges and challenges to our community? Let's go with the classic bias. You know, the examiners are biased because they work in a police agency, and get the pressure from the detective to make the identification, I'm of the opinion that the best way for us to challenge the bias attacked is to document, document, document our individual comparative measurements and our aggregate of comparative measurements. As Marcus has improved our documentation process within the Indiana State Police laboratory, I believe that is the best way to document what we are doing, when we doing that, and the sequence we're doing today. We will never be able to fully document what the vision system and brain are perceiving because it's much too complex. But if we document the recurring process that takes place within the exam to the best of our ability, it is much better to reach a good final conclusion.

Marcus Montooth [00:32:19] And there are other simple things that we can do, sequential unmasking of the information coming in. So from a supervisor standpoint, we recently redid our entire request for laboratory exam. So one big thing is we took out suspect and victim. We used to have that on the form. Now we just asked for individuals associated to the case. We also separated out each type of exam. So if we get in a dual exam for DNA and latent prints, DNA needs some information about the suspects and the victims. In the latent prints, we don't need it. We don't want it. So they get a completely separate form. The form it basically prints two forms. One goes to DNA, one goes to latent prints. Now, there are times that we need some information. We do deferrals, meaning if they just want the person identified once and then we can document all the latents in the case, but stop the comparison process. This has been huge. And getting our backlog from 600 cases down to under 200. We do need to know who they want ID in that case before we can stop. It's the sequential unmasking. You only get the information if you need it for the kits.

Dr. Mike Planty [00:33:35] So handling the workload basically takes the pressure off their examiner. You're looking at the separation of cases, making sure that you only have limited information or necessary information for the examination and not additional information that could introduce biases or potential so whether it's the victim or the suspect, it doesn't matter. Just identify whether this is a match with the print found. So things like that are all aiding. So, yeah, other thoughts about where this is all going?

John Vanderkolk [00:34:07] John I'm an advocate for welcoming in independent experts to review our work product. Every exam we conduct, I'm confident Marcus has his examiners prepared, as if an independent examiner will review that ten years from now, five years from now. I give tremendous credit to the appeals lawyer, Cara Wieneke for taking this case for recruiting independent expert Kathleen Bright-Birnbaum and for them working it to review the work product of a questionable case, let's say. Feeling that way, I worked the Ohio Innocence Project case on pattern evidence. And I would like to advocate for more government examiners be willing to work independent like Innocence Project cases. There is a fine line. I can't work cases in Indiana because there's a strong conflict of interest there, but I should be able to work cases outside the state of Indiana. I learn tremendously from the Innocence Project case out of Ohio pattern case in which there should be more review of pattern cases or any questionable forensic science exam. I advocate for the independent outside review.

Dr. Mike Planty [00:35:21] I mean, I guess by me this is my ignorance in terms of, you know, random audits. How do they fit into maybe your lab Marcus or others where it's just not an audit in terms of some case, we think there's a problem with it versus just 1 or 2% of cases are just routinely reviewed by an independent body. Would there be value there?

Marcus Montooth [00:35:41] I believe definitely there would be. We do the audit on every case and in the technical review so we don't go back and look at those like you say, unless there was a problem that came up with something. But I would have no problem with independent review. We are forensic scientists. We are not employees of the prosecutor's office typically. I mean, we are employed by the Indiana State Police, but we should have no bias in what we look at. We should be able to look. Get any type of evidence that comes in. We're just seeking the truth. That's why we don't care who the victim or suspect is. We just look at the prints to determine if one of those matches In this case, the print was not Lana Canen's print. She went to prison for seven years because of that mistake. And like John said in the Ohio case, this should never happen. If there was a good independent review of case work. She should not have spent a day in prison. So Lana Canen had been in prison for about seven, six, seven years at this time. So they had the hearing in which Kathleen Bright-Birnbaum prepared her chart. And demonstrated why she was of the opinion that print had not been made by Lana Canen. And then the Elkhart County Examiner conceded and said, Yes, I was wrong. So then the evidence came to us and we shifted to the Evansville Laboratory for Marcus to examine.

Dr. Mike Planty [00:37:11] What was it about the print error and maybe some detail about what was something missed or something overstated?

John Vanderkolk [00:37:19] The first thing that might have been overstated would be the qualifications of the examiner.

John Vanderkolk [00:37:23] Correct, he had been a temp print examiner at one point in time, maybe 20 years earlier, but he had not. This was his first latent print identification that he had ever made in his career. And he was a more of a crime scene investigator than a latent print examiner. So he wasn't working in a lab as a latent print examiner.

Dr. Mike Planty [00:37:48] So you got the case and then what happened?

Marcus Montooth [00:37:51] The first thing I got was the chart that he had originally used and a very quick viewing of the chart. It's definitely not that print. The deltas off. There are ridge endings that aren't marked in, one that aren't present in the other. Some things that are marked, aren't there. There are some markings. He has like seven markings on the print. Some of them go to virtually nothing. Just almost gray areas. This is definitely a threshold print that John was talking about earlier. So I saw that to start with. And, you know, in my mind, I'm thinking, is it even a value? Looking at his chart, it's hard to say it's a value. But given the case, there was pressure. I hadn't experienced it before working a normal case. But there was pressure to call the print of value to start with. Because if I come back to him with a report that says I can't tell anything, that helps no one, doesn't it doesn't help the prosecutor, it doesn't help the defense. So even with that pressure, I was able to do a good detailed analysis of the print. And I understand why our examiner in (indiscernible) said there was no latent print value on it. I did have to do some digital enhancements to it to help with my analysis. I ended up analyzing it. It was a value, but that's just the first step. Then you have to do the comparison. If you do inconclusive, if you go inconclusive again, it helps no one. So there's another pressure point there of making a determination and then looking at the print. I have a very high level for exclusion. The Indiana State police does. Could there have been something going on with the print, some type of distortion to make it look different than what it really was? So you have to do a detailed analysis of that and it really brings in the AFIS process. You know, I'd already done the analysis. I started the comparison and circled back to re analyze the print. Taking

into consideration the distortion factors. Through all of that, I was able to exclude Lana Canen as making the print not just to the finger that was ID but to all fingers. So you have to compare all ten fingers, not just the one that he ID to make sure this wasn't a print. It was a pretty bad error to start with. It would have been worse on my part just to exclude that one and have it end up being one of her other fingers. At that point, I thought I was done with the case. You know, I had excluded her. That wasn't her print. Then the prosecutor decided to submit all the evidence in the case to me, which was somewhere around 17 lists, 17 different exemplars and a pill bottle, I believe. But the 17 exemplars is quite a bit for us to work. Typically, we get five or less standards to compare to. But they did a good job of collecting elimination standards. So they had all of her health care workers that were in the house. But I did ID two of the prints. One of them being print that was erroneously ID'd. So ID it to a health care worker that was there. And I believe that the original examiner had her exemplars at the time so he could have made the right identification when he made the erroneous. And maybe that's where those factors of pressures that he had factored in. To touch on an independent review, you know, every case that we work, we can affect the case for the defendant in a in a positive or negative way, just in a standard case. Not IDing may help them. This case felt different. And that's why I said it had a profound effect on me the day I turned my report in. The next day, she was released from prison. So that's a very good feeling that we don't normally get to have because we don't know how non ID affects a case necessarily. The erroneous identifications that we know about typically come from high profile cases, homicide cases. Somebody is in prison. It took her seven year, six, seven years to get somebody to look at it. How many plea agreements are made based off of an erroneous I.D.? How many low level offenses get through the court system before anybody would have a chance to question the latent print identification? So there's certainly more out there. This one really opened my eyes to that possibility.

John Vanderkolk [00:42:21] Yet for opening my eyes, I would say working. The Ohio Innocence Project case of years ago definitely opened my eyes when I showed the request to my wife. She says. What happens if the guy gets out of prison? I go, So be it. What difference does it make to me? And I've really started advocating for seeking the truth. That's a philosophy statement. And some people say, Well, philosophy. What's that got to do with forensic science? What? Well, every Ph.D. in science, the Ph.D. is the doctor of philosophy, the doctor of knowing about science. So I'm a big advocate for philosophy. But with that, I'm going to advocate for more of us should be willing to work Innocence Project type cases and work the independent review of other cases and let the evidence take our decision where it takes us and not be worried about the outcome. We have to be disinterested, not attached to the outcome of our exam. We have to be willing to walk away from our exam when we're done with it.

Dr. Mike Planty [00:43:27] Well, great. I really appreciate our guest today, John Vanderkolk and Marcus Montooth, for sitting down with Just Science today. Thank you both. If you enjoy today's conversation, be sure to like and follow Just Science on your podcast platform of choice. For more information on today's topic and resources in the field of forensic science, visit forensicscoe.org. I'm Mike Planty, and this has been another episode of Just Science.

Outro [00:43:52] In the next episode of Just Science, we sat down with Tim Schade and Brian Cochran to discuss off the shelf crime scene processing products. Opinions or points of views expressed in this podcast represent a consensus of the authors and do not necessarily represent the official position or policies of its funding.