

Colin Miller: Hello, and welcome to the 12th episode of Undisclosed. Today's episode is: Exit Wounds. This is Colin Miller, I'm an associate dean and professor at the University of South Carolina South Carolina School of Law, and I blog at [EvidenceProfBlog](#).

I'm joined, as always, by Susan Simpson. Susan is an associate at the Volkov Law Group and she blogs from [TheViewfromLL2](#).

Now, unfortunately Rabia couldn't join us today, but she'll be back next week. In the last couple of episodes, we discussed how at trial the state made a concerted effort to piece together the various pieces of Joey Watkins' character in order to establish a motive for killing Isaac Dawkins. Today, we'll also discuss a concerted effort by the state to put together various pieces of evidence, but in this case, we're dealing with literal pieces.

The fragments of bullets found in and around Isaac Dawkins' truck, which the state tried to piece together to establish how he was killed with a .9 millimeter bullet.

Stanley Kubrick based his 1987 movie, *Full Metal Jacket* on Gustav Hasford's novel, "The Short Timers." Kubrick changed the title to *Full Metal Jacket*, in part, because this was the type of ammunition a hard-cased bullet with a soft material on the inside, that was used by soldiers during the Vietnam War. But the title is also metaphorical. The military takes the view that you must break someone down before you can bring them back up. But, this assumes that, as with the myth of "Prometheus," man is composed of clay. But man is predominantly made of water, and water seeks its own level.

In the opening Paris Island section of the film, R. Lee Ermey's Gunnery sergeant tears down Vincent D'Onofrio's Private Pyle under the belief that he can build him back up into something resembling a full metal jacket, soft on the inside but hard on the outside.

But sometimes the pieces don't fit together, no matter how hard you try. In the prosecution of Joey Watkins, the prosecution similarly had several pieces that didn't quite fit together. Snitches who kept changing their story, the little blue Honda Accord, and fragments of a bullet found in three separate locations. But these misaligned parts didn't stop them from trying to jam square pegs into round holes. And in some of these instances, they had an accomplice. The Georgia Bureau of Investigation.

Susan Simpson: Last week, the President's Council of Advisors on Science and Technology, or PCAST, issued a [landmark paper on forensic sciences](#). I'm going to declare it mandatory reading for all Undisclosed listeners -- it's that important.

But, this section in particular I wanted to highlight. The report found that, "many forensic feature comparison disciplines are based on the premise that various sets of features, for example,

fingerprints, tool marks on bullets, human dentition, and so on, are unique. Yet, uniqueness studies miss the fundamental point. The issue is not whether objects or features differ; they surely do, if one looks at a fine enough level. The issue is how well and under what circumstances examiners applying a given metrological method can reliably detect relevant differences in features to reliably identify whether they share a common source. Uniqueness studies, which focus on the properties of features themselves, can therefore never establish whether a particular method for measuring and comparing features is foundationally valid. Only empirical studies can do so. For a metrological method to be scientifically valid and reliable, the procedures that comprise it must be shown, based on empirical studies, to be repeatable, reproducible, and accurate, at levels that have been measured and are appropriate to the intended application.

Now, the PCAST report looked at various types of comparison studies, but, with regard to firearm comparisons in particular, the report found that the field does not currently have an empirical basis. It notes, "we observed that Association of Firearm and Toolmark Examiners's "Theory of Identification as it Relates to Toolmarks"—which defines the criteria for making an identification—is circular. The "theory" states that an examiner may conclude that two items have a common origin if their marks are in "sufficient agreement," where "sufficient agreement" is defined as the examiner being convinced that the items are extremely unlikely to have a different origin. In addition, the "theory" explicitly states that conclusions are subjective.

More importantly, according to the PCAST report, empirical, peer-reviewed studies of fire arm comparison analysis is currently lacking. "At present," the PCAST report found, "there is only a single study that was appropriately designed to test foundational validity and estimate reliability, [...] because there has been only a single appropriately designed study, the current evidence falls short of the scientific criteria for foundational validity.

Now, it's not that firearm comparisons are worthless, and indeed, the report states that early studies indicate that examiners can, under some circumstances, associate ammunition with a gun from which it was fired. But, what it is saying is that this is not a science. This is not a rigorous field of analysis with peer review and empirical validity that's been evaluated and understood by science.

Colin Miller: So, now let's turn to the testing that was done in the Joey Watkins case, when Stanley Sutton signed his affidavit in support of his application for a search warrant in September of 2000, he noted that, "there is only a limited amount of forensic evidence, such as fingerprints, ballistics and other trace evidence."

Now, we're not entirely sure what he was talking about, because there was no fingerprint evidence and no other trace evidence we're aware of, but there was at least ballistic evidence in this case, and two different rounds of ballistics testing performed.

Susan Simpson: A bullet, like the type fired from a handgun or a rifle, has three parts. A shell casing, which holds the bullet and gunpowder, the lead core of the bullet, and a metal jacket that surrounds the lead core. Parts of all three components were taken into evidence in this case. During the autopsy, the medical examiner was able to recover fragments of a lead core. It had fragmented into many pieces, although only four of these pieces were actually taken into evidence. What the medical examiner did not find was any trace of a metal jacket.

Colin Miller: Now, you might recall that a tiny fragment of a bullet jacket was recovered from the floorboard of isaac's truck the day after he was shot. This was the second type of ballistics evidence that was found in this case. And then there was the third type of ballistics evidence, the shell casing that was found. Now, again, you might recall that a .9 millimeter Federal brand cartridge case was found on Highway 27 about 900 feet south from where isaac's truck wrecked. What we don't know, as you might remember, is where this was, exactly, in reference to where isaac's truck first left the road. Where it crossed the median of the divided highway before veering into the south-bound lane.

Now, ultimately, the state's goal with regard to these three pieces of ballistics evidence was clear. First, have an expert prove that the bullet core, the bullet jacket, and the cartridge case all came from the same bullet, and therefore that the bullet that isaac was shot with, which was not identifiable from the core and jacket fragment alone, was in fact a .9 millimeter bullet, which would help prove their theory that Joey, or Mark, shot isaac with a .9 millimeter gun.

Susan Simpson: The Rome police department submitted this evidence to the GBI, and on the submission form, in the section where the police wrote down what analysis they were requesting, Detective Moser wrote the following, "compare to bullet fragment recovered from victim, associate they are of each other," and, "compare fragment bullet recovered from victim to associate togetherness of casing."

Yeah, a double-blind study this is not. The instructions are clear on what Detective Moser wanted the lab to find: proof that the fragment, lead core, and shell casing were all associated with the same event. Jay Jarvis, the lab manager at the Northwest Regional Crime Laboratory in Somerville, Georgia, just north of Rome, was asked to make these determinations.

With regard to the first of these goals, you would have to say that the state was pretty successful, because here's the relevant exchange between district attorney Tami Colston and Jay Jarvis at trial.

Colin Miller: Question: And so it was a Federal ammunition cartridge case, now the lead bullet core and the fragment of the bullet jacket, was there anything consistent with these two items that with the cartridge case? Answer: Yes, the metal jacket fragment on the inside surface, which would be the

surface that's actually in contact with the lead core, had a series of small ribs which are consistent with Federal .9 millimeter ammunition. Question: Alright. So the core taken from the victim at autopsy, as well as the fragment of the bullet jacket, were consistent with the same .9 millimeter Federal ammunition that you got from the cartridge case that was received from somewhere else?

Answer: That's correct, yes.

Susan Simpson: So, that seems pretty compelling, right? If you heard this testimony as a juror, you'd probably conclude that the bullet core fragments, the fragment of the bullet jacket and the cartridge case all came from the same bullet, the .9 millimeter, which would match the state's theory that the shooting was done with a .9 millimeter handgun. And, indeed, the reports that were issued by Jarvis in this case match that language that they used at trial.

Colin Miller: Yeah, and Jarvis' test results actually went beyond this associate that Moser requested. At trial, Jarvis testified that, in the first round of testing, he was requested to examine the casing, jacket fragment and core to determine what had been used to fire them.

Lawyer: Now, did you take these items and did you perform any examinations with them?

Jay Jarvis: Yes, I was asked to examine the items to see if I could determine what kind of weapon they had fired from.

Lawyer: Alright, how'd you go about doing that?

Jay Jarvis: By microscopic and visual examination, both of the cartridge case and the bullet, looking at various characteristics that are placed on these items at the time that they're fired.

Lawyer: Alright.

Susan Simpson: I couldn't actually find any documentation, though, that states that Jarvis was ever requested to determine what type of firearm was used. Maybe that was implied in Moser's request that he associate the three types of evidence that were found. But, at any rate, Jarvis' report ultimately concludes, "microscopic examinations of the cartridge case reveals it was consistent with being fired in a Ruger .9 millimeter." He found that the jacket fragment was also consistent with the Ruger .9 millimeter. Here's Jarvis testifying at Mark's trial about this, although it's worth noting that the language he used was much less conclusive than the testimony he gave at Joey's trial.

Lawyer: Were you able to determine whether or not it's consistent with any particular brand of weapon that may have fired them? Given the fragment?

Jay Jarvis: Not conclusively, no sir. There was only just a very small part of the rifling marks that were still visible on that fragment, and the dimension of that particular characteristic was consistent with a Ruger firearm.

Susan Simpson: This conclusion baffled me for a long time. Because, why? What about the casing and fragment made Jarvis think that it had been fired from a Ruger? Nothing in his report explains it, and his testimony doesn't either, so what lead to this conclusion?

We had the chance to talk to Jarvis. Twice, actually. The first interview was back in April of this year. Jarvis was with the GBI for over 30 years, and although he specializes in ballistics evidence, he also regularly worked on cases involving just about any kind of forensic comparison analysis that you can think of.

When Clare and I spoke to Jarvis in April, I found him to be thoughtful and careful in how he explained the forensic evidence in this case. And I was very much surprised by what seemed to me to be his frank self-awareness tinged with a certain level of regret about how the GBI's approach to forensics had, in some ways, been aimed at advocacy rather than science.

Take his conclusion from his analysis that the cartridge casing was DTW Ruger .9 millimeter, or "Determined Type Weapon, " it was fired from a Ruger. I asked him why, exactly, did he think it was a Ruger, anyway? And Jarvis acknowledged, well, that was one of the pistols that could have fired it, with emphasis on *one of*. Plenty of other pistols could have also fired it, too.

Jay Jarvis: Just understand -- and, you know, and it -- you know, now that I'm an independent, you know, consultant, when I write a report, I can kind of write it the way I want to, and you know, when I was working for the GBI, I mean, you were -- you had a defined set of rules that you had to follow when you are reporting things. And I -- you know, I wish, you know, we did more in our reporting, but you have to understand, again, I talked earlier about how -- the whole process has evolved due to accreditation, and you know, part of that is, we've had to change a lot of the things that we do because it's not really consistent with the best practice of laboratories all across the country. You know, this statement here, it says, "reveals is consistent with being fired in a Ruger .9 millimeter pistol," well, that's -- that's true. But there should -- you know, there should have been a disclaimer that says, you know, this doesn't mean that, you know, it couldn't have been fired from another type of pistol. But see, you know, our rules of reporting back then said this was the way it was reported.

Colin Miller: But why a Ruger? Well, it seems he had to write something, and the more specific, the better.

Clare Gilbert: If that -- if that is not the only thing that it would have been consistent with, why would you have picked Ruger as being the one that you wrote down?

Jay Jarvis: Because the, again, the mindset where we were -- the way we did things back in that time frame was we tried to provide reports that were more useful to the law enforcement.

Colin Miller: But, in this case that overly, and unjustifiably, specific determination could have easily had the effect of diverting law enforcement investigation in the wrong direction. Because it seemed like the Rome Police Department, for some reason, took Jarvis's findings as a more specific conclusion than it really was. On March 8th, Moser issued a BOLO, a "be on the look out for," which affirmatively identified the weapon used to kill Isaac as a Ruger and only a Ruger.

So, according to that BOLO, at 7:30 P.M., a 20 year-old white male was driving a 1994 Toyota pick-up truck into Rome, Georgia, during which time someone fired a .9 millimeter Ruger handgun into the rear of the truck, striking the victim and killing him.

And that's the problem. With no reason to think a Ruger was more likely to be the kind of weapon used as opposed to any other consistent weapon, that unwarranted specificity might have led to the premature rejection of possible leads.

Susan Simpson: You know, I also noticed, too, Colin that, in this BOLO, Moser made no mention of a "little blue Honda," as part of the "be on the lookout for." He only identifies the victim's truck.

Colin Miller: Yeah, and that's interesting given, you know, we all know the history of them trying to tie some type of vehicle that matches that general description to Joey and really coming up short, so, that might partially explain why it's not there in the BOLO.

Susan Simpson: Jarvis didn't have to speak with us, but he did generously agree to offer his time to talk to us about what he remembered, and to explain the gaps in the paperwork and our knowledge of GBI procedure. But we wanted to also have an independent expert review the materials as well, so we spoke to Chris Robinson of Chris Robinson Forensics. Chris is now a private forensic consultant, but he spent ten years at the GBI as a ballistics examiner and, like Jarvis, he's familiar with GBI's institutional leanings.

Chris Robinson: I mean, this is what I do. I get everything on a case now. So I know, from soup to nuts, I know everything that everybody knows. So that's what is not fair, when you think

you hired a GBI -- and they're supposed to be unbiased, it's not. It is biased. Because they're working it from the state's perspective.

Colin Miller: And then we take Jarvis' other conclusions, that the lead core, the jacket fragment and the casing were all fired from the same .9 millimeter as part of the same shooting incident. But it turns out Jarvis only firmly identified one of those items; that's the .9 millimeter casing. That he could reasonably conclude was fired by a .9 millimeter and it was Federal brand ammunition, but of course, that was written right on the casing itself, so that's not too surprising. But the lead core and jacket fragment, there's no way to identify either of those as coming from a .9 millimeter. Jarvis' conclusion was that he could not exclude either of those as coming from a .9 millimeter, and therefore it makes sense to assume that they were directly connected to the .9 millimeter casing found along the highway.

Chris Robinson: Well, just looking at this worksheet, if it's a lead core, there's no -- because it's the inner part of the bullet and it doesn't actually make contact with the inside of the barrel, there's no rifling marks that are impressed onto the core, so the problem with a lead core is that there's no way to compare it back to a specific firearm because there are no markings on it. And that's unfortunate. And it was also a small metal jacket fragment and it has, you know, it just -- it didn't have enough markings in order to do a comparison even if -- I'm not even sure if there was a gun recovered.

Colin Miller: This would be consistent with what Jarvis wrote in his own report on the evidence when he concluded that the ballistics evidence had potential for identification of, "poor."

Susan Simpson: When you write, "potential for identification," you wrote "poor." What does that mean, and how do you make that kind of determination in a particularly case?

Jay Jarvis: You know, when I'm doing an examination of a fired bullet component, I'm looking for striations or scratches that are engraved in the surface of it when it passes down the barrel, so obviously the more stria that's present, the better your chances to make an identification back to a specific firearm or to another projectile that may have been fired during the same incident. So, if there are very few stria available on the evidence, then the opportunities to make an identification is not as good, so I think, by putting "poor," as a potential for identification, that indicates to me that there's probably very little there for comparison purposes.

Colin Miller: One thing Jarvis' report does note is that the jacket fragment, although only a tiny sliver of the whole thing, had some kind of ribbing on it. This ribbing, he said, is only found in Federal brand ammunition. Jarvis didn't do anything to document these ribs, though, beyond noting that they existed,

and we have no idea how many there were or how confident he was in his conclusion based upon such a tiny sliver, but assuming the ribs were there, Chris concluded, the jacket fragment was manufactured by Federal.

Chris Robinson: Federal makes multiple brands, though, that -- depending on what he saw, so -- I'll give him the credit that he can do that. If he says he saw it, then I would believe that.

Susan Simpson: He just says it's consistent, but doesn't say why. Which leaves the question, is it just because it's not -- it could be consistent with a lot of things, so.

Chris Robinson: Yeah, but to an examiner, when I say it's consistent with, that means there's things that I'm seeing that indicate to me that it's a Federal and I'm telling you that that jacket is a Federal and the cartridge case is a Federal, so I'm telling you -- you can assume that they're the same. And you can't ever match a jacket back to a cartridge case, so if you ask me, "Do you know for sure?" No, no I don't. Because I don't have a gun. But if you're asking my expert opinion, I'm telling you that the same manufacture at the same shooting, you can extrapolate that.

Susan Simpson: In other words, one plus one equals two. But it's not as if Federal ammo is some magical unicorn among bullets. And the idea that two different people might both fire Federal brand ammo is not inconceivable. I don't have any particular reason to think that the casing and jacket are not from the same projectile, but at the same time, I'm not comfortable with that being used in court to support the affirmative conclusion that they are the same. I mean, if I find two pennies on the sidewalk, they might both be manufactured by the U.S. mint, but does that mean I can conclude they both fell out of the same pocket?

So, due to these unrecorded attributes concerning the jacket fragment, it does seem like it was made by Federal. There's nothing, though, that was found to identify the jacket or the core as being .9 millimeter in particular. And Jarvis' conclusion that they were was 100% dependent on the assumption that they were connected to the casing that was also found. But why do we assume the casing was connected to Isaac's murder. It's a Georgia highway. And finding a shell casing isn't exactly a shocking turn of events.

In order to shore up this hole in this case, the prosecution argued that the brass casing was just too darn shiny. That it had only landed there a couple days before it was found, which means it was almost certainly connected to Isaac's murder.

Lawyer: Now, have you, in your career, as a firearms expert, have you had occasion to notice the oxidation of brass when it's exposed to weather?

Jay Jarvis: Yes, generally the longer a brass cartridge case is exposed to the elements, the more it will oxidize.

Lawyer: What happens when it oxidizes, what are we talking about so that [unintelligible]?

Jay Jarvis: It's a reaction of the metal itself with the air and it's usually accelerated by moisture, and it causes, typically, what you see like, with iron or steel. It rusts. But when you're dealing with copper it's -- it doesn't really get that rust, brownish color, it turns a little -- it loses a lot of its shine or polish.

Lawyer: Does it over a period of time turn green?

Jay Jarvis: Yeah, it can, if it's exposed long enough, it can turn green, yes.

Lawyer: Would a case such as that oxidize fairly quickly if left exposed to the weather?

Jay Jarvis: I would say so, yes.

Lawyer: Alright, now, state's exhibit number 24, the casing that you received, did it have any evidence of oxidation?

Jay Jarvis: No, sir, it didn't.

Lawyer: So, left out exposed on the side of a highway in the weather -- if it had been there for more than a few days, would you expect for it to be oxidized?

Jay Jarvis: I probably would, yes.

Lawyer: Can you narrow it down as to how long you would expect it, given that there are variables such as rain and so forth?

Jay Jarvis: No, I can just base it on the experience that I've had in test firing firearms at the laboratory outdoors, you know, occasionally, you'll shoot something out in our little range area and you may go out in the next three or four days and if there's a cartridge case still laying there, usually you can tell that it shows signs of oxidation. So, I mean, I haven't done any definitive tests as to how long it would take for you to notice any type of a change, but typically, after four or five days, you would expect to see some sort of visible difference.

Lawyer: So we know that that bullet and all that casing had only been out there, minimum, four to five days? Uh, max.

Jay Jarvis: It's my opinion that it was out there just a short period of time.

Susan Simpson: But, as Jarvis acknowledged, this isn't science. It's just a guesstimate he was throwing out there on the basis of something he'd maybe noticed once. So why isn't the defense jumping to its feet and objecting all over the place? Because I just don't think Jarvis' estimate is right.

Susan Simpson: Oh, look. This bullet has been here for one week now. I put it down on Monday afternoon, last week, it's now Monday evening, it has rained literally every single day in Georgia because this Christmas is apparently monsoon season, and it's been sitting out here in the rain on the side of my driveway, and it's still just as bright and shiny as it was when we started. Because, apparently, brass doesn't rust. Who knew?

Susan Simpson: Now, I brought that casing home with me when I flew back to D.C., with the intention of leaving the case out for another month or so to see if any corrosion would be present. And the last time I saw that casing, it was still shiny and non-corroded looking. Then, Snowzilla hit D.C. and the snow melted away and the casing was gone. No clue where it got to, but that was kind of the end of my science career.

Anyway, it's not as if my methods were more scientific than Jarvis'. Cause they weren't. But that's the point. This isn't evidence that should have been used to send a man to life in prison. And, while Chris Robinson's comments about the condition of the casings aren't science either, they do show that Jarvis' musings about the casings wouldn't have been shared by all firearms experts.

Susan Simpson: Do cartridge casings -- how fast do they corrode?

Chris Robinson: Just depends on the type of conditions that they're left in. I saw where he said that, yeah, I could stick a cartridge case over here, I've had a cartridge case sitting around over here, there's cartridge cases sitting on that windowsill over there that would sit there for the next hundred years and that would never change color. One's nickel, one's brass, they're the same that they ever were.

Colin Miller: Yeah, so really, all of the above that we've just discussed displays the heart of the problem, and it's a problem that's been identified with everything from microscopic hair comparison to bite mark analysis, it was identified from the President's Council report, when there's a lack of independence of experts, it can lead to false positives or testimony that gives the impression of a match when no match can be established. Now, part of the problem with this case is that we also don't

know exactly what was communicated between the Rome Police Department and Jarvis. And here's an exchange between Clare and Jarvis on this very subject.

Clare Gilbert: Would you have had any kind of oral history as well as these documents? Like would you have had any conversations with the detectives?

Jay Jarvis: Possibly. Typically, in this time frame, that usually did not occur. Again, if you'll let me digress a little bit, in the evolution process of how we did things at the crime lab, you know, it changed from, in the early years when somebody brought evidence in, they called somebody from the section up to the front office and you went up there and you met people face to face and you might actually discuss cases and stuff like that, but as we evolved and to try to become "more efficient," we had laboratories where we had people that their main job was just to receive evidence into the laboratory from the agencies and people -- if you were a scientist, you weren't interrupted from what you were doing and come up to the front office to meet with somebody unless it was -- you know, they really felt like there was really something that they needed to talk to you with. In some types of cases, they were even able to drop evidence off into a locker.

Susan Simpson: Drop box? That's what happened here.

Jay Jarvis: Drop box. Yeah. So, you know, you lost contact a lot of the time with talking with the investigators unless during your working of the case you felt like you needed to talk to somebody but, in this instance I probably went with whatever information was -- they furnished onto the submission form.

Colin Miller: So, as a result, all we have to go by in this case is the evidence submission form, which says, "on January 11th, 1999, Isaac Dawkins was shot while driving his truck into Rome. A bullet fragment was recovered during the course of the autopsy, a jacketed part of a bullet was recovered in the cab of a truck, and a .9 millimeter spent shell casing was recovered near the accident scene. It is this investigator's request that the evidence submitted be analyzed to determine if the evidence submitted can be associated with the bullet recovered from the person of Isaac Dawkins. Isaac Dawkins was shot from the rear as the bullet entered from outside the back/rear sliding glass window of the truck and then the bullet struck Isaac Dawkins."

Susan Simpson: So, we have this form and this was the form that Moser filled out and submitted with the two pieces of the bullet, the fragment and the casing that went up to the lab in Somerville, but it can't be the only communication between the Rome Police and the ballistics lab, because if you look at the report, the one issued on March 15th, so, a little under a month after this evidence and these

request forms were sent up to Jarvis, Jarvis' report has a section not just for a victim, Isaac Dawkins, but also suspect, Joey Watkins.

How did Jarvis learn that? It's not in any of Rome's forms. So, someone's talking back and forth if Jarvis knows that.

Colin Miller: Yeah, so given this incomplete and seemingly unreliable information about the ballistics, the nature of the gunshot, the gunshot wound, etcetera, we decided to follow up with one of our reliable expert sources from season 1, and that's Dr. Leigh Hlavaty and so here's the interview that I conduct with Dr. Leigh Hlavaty regarding the ballistics and forensics evidence in the case.

Colin Miller: Today we welcome back a terrific guest from our first season, Dr. Leigh Hlavaty. Dr. Hlavaty is an assistant professor of pathology at the University of Michigan and Deputy Chief Medical Examiner at the Wayne County Medical Examiners Office in Detroit. Dr. Hlavaty, welcome back to the podcast.

Dr. Leigh Hlavaty: Well, thank you for having me back and for sharing another exciting case with me.

Colin Miller: Now, I'm going to start by describing what I sent to Dr. Hlavaty. First we have the victim's autopsy report and medical file, second we have the result of tests done on the victim, third we have various photographs taken of the victim and the crime scene and fourth, we have images of a C.T. scan that was done on the victim. And after that, I gave Dr. Hlavaty a brief description of the case and here's that description:

"The victim, Isaac Dawkins, was driving his pickup truck when it veered off the road and crashed into a pine thicket. There was no attempt to brake or steer and witnesses wondered if he'd perhaps fallen asleep at the wheel. Medics on the scene could tell that there was some serious head trauma and he was transported to the hospital at 7:43 P.M. and according to various sources, at 9:10 P.M. it was determined that the injuries were not from the motor vehicle accident, but instead were the result of a gunshot wound to the head. Now, Dr. Hlavaty, what were the conclusions that you drew from this evidence and the description that I gave you?"

Dr. Leigh Hlavaty: Well, based on the autopsy report, the one photograph of the right side of his head that appears to have been taken in the hospital, and the three photographs of the fragment of lead core recovered from his head at autopsy, I'd summarize his wound as this: there was an atypical entrance gunshot wound on the right side of his head above the ear. With pseudo stippling injuries described, primarily, on the right side of the head, the right

ear, and the right side of the face. I say, "described," because I did not receive any pictures of the pseudo stippling injuries. Now, pseudo stippling indicates that he was shot through an intermediary target, that the bullet stuck and either passed through or deflected off of something prior to striking him on the right side of the head. When a bullet strikes an object and either deflects off of it or passes through it, the bullet becomes deformed and the core can become separated from the jacket if the bullet was jacketed, and this projectile is not knocked off its ideal in-air path or trajectory. When it's destabilized, a deformed bullet strikes the skin, the resulting entrance will be a-typical, meaning it will not be normal or typical appearing, which is a punched-out hole that has an abraded rim.

Now, pseudo stippling itself are superficial, small, irregularly-sized and irregularly-spaced injuries that can be either abrasions, lacerations and/or contusions. They're named for their ability to resemble true gunpowder stippling in a close-range gunshot wound, and it can be present when a bullet strikes or passes through an intermediary object. Pseudo stippling can be on the skin surrounding a-typical entrance wounds, or on any nearby body part, and are caused by fragments of either the bullet, fragments of jacket and/or lead core if the two became separated, or even fragments of the intermediary object itself striking the skin.

Now, after the bullet entered above the right ear, it passed through the skull and the brain. Specifically, the right parietal bone, right parietal lobe, left parietal lobe and left parietal bone and it caused extensive related internal injuries, again, specifically, subarachnoid and subdural hemorrhages, brain contusions, comminuted fractures of the skull and brain swelling. And then finally, four fragments of a lead core from a jacketed bullet were recovered from the wound tract.

Colin Miller: *Now, is there any possibility in this case that the victim, Isaac Dawkins, remained conscious after receiving this gunshot wound?*

Dr. Leigh Hlavaty: *Well, given the extensive internal head injuries associated with this gunshot wound, he was most likely rendered unconscious immediately or within a few seconds at most.*

Colin Miller: *And is there anything that you can tell us about the type of weapon that might've been used to commit this murder?*

Dr. Leigh Hlavaty: *Portions of a lead core from a jacketed bullet were recovered from the head, so the weapon was either a handgun or a rifle. The nature of the internal injuries favor a handgun, as rifles tend to cause more destruction within their wound tracks due to their increased power. For instance, with rifles, you would expect to see complete pulpification of*

the affected lobes of brain, instead of a one-inch in diameter wound track as was described in this case.

Colin Miller: *And does it seem unusual to you that no jacketed portion of the bullet was recovered from the victim, either during his autopsy, or that the jacketed portion wasn't visible on the CT scans?*

Dr. Leigh Hlavaty: *No, in a shot fired through an intermediary target, the jacket may separate from its lead core prior to striking the body. So, in those cases, only the lead core is what enters the body and it is the only part that will be recovered.*

Colin Miller: *And would that jacketed portion of the bullet be something that would be picked up by the scans or an autopsy if in fact that jacketed portion were in the victim?*

Dr. Leigh Hlavaty: *Yes, the jacket and the lead core both appear the same on CT scans and on X-rays. So if portions of the jacket were in the body, they could be as easily identifiable as the lead core and they could be recovered.*

Colin Miller: *Now, in this case the victim had two circular wounds on his head and one was directly above the other. The gunshot wound was on the top, and the autopsy says the lower wound might have been caused by a circular antenna. Is it possible in this case the lower wound was caused by the jacket of a bullet which had separated from the core?*

Dr. Leigh Hlavaty: *Well, all I have is the description of a circular wound and the one photograph with it that was taken in the hospital. And it does appear that something round and tubular struck the head below the entrance wound. Since I don't have a picture of the antenna or any additional photos of this wound, I would say it's possible that a jacket caused that wound just as it's possible that a portion of the jacket could have created any of the pseudo stippling that was described on the body.*

Colin Miller: *Yeah, and what I'll add to that is there was this tiny sliver of a jacket that was found in the truck, but most of that was never recovered and that's why we wonder in this case if the jacket might have separated from its case prior to impacting the victim.*

Dr. Leigh Hlavaty: *After reviewing the materials that I was given in this case, I would agree that it is most like that the jacket did separate from the lead core upon impact with the car window and that only the lead core struck him in the head.*

Colin Miller: *Now, in total, there were four pieces of lead core that were recovered at the autopsy. One was a large piece, one was a medium but long piece, and then there were two*

much smaller pieces. But the CT scan seems to show that there were a lot more than four pieces, so my question to you is, is it common for some bullet pieces to not be recovered during an autopsy?

Dr. Leigh Hlavaty: *Well, all pieces of bullet that can be recovered generally are, but the size of the piece is the right limiting factor. If the pieces are too small, they can escape detection by palpation, and in general we can't use forceps or other metal instruments to retrieve bullet or bullet fragments because of the risk of interfering with the striations on them. The striations are the marks left on the bullet by traveling down the barrel of a weapon, and that's what the firearms examiners use to determine if bullets were fired from a particular weapon. In cases with fragmentation of the bullet, or its lead core, such as this case, there usually are minute fragments of bullet that could not be recovered from the wound tract. But a word about CT scans. These kinds of wounds in the head produce a lot of bone fragment in and along the wound tract, and in CT scans, both bone and bullet appear dense or white, so what you are seeing on his CT scan as the white spots are actually multiple fragments of bone mixed with bullet and aren't just bullet fragments. Also, the apparent size of those fragments don't correlate to their actual size, so what appears to be large enough to be recovered on the CT scan is, in reality, not that large at all.*

Colin Miller: *And, in this case, after reviewing everything, are there any conclusions or informed guesses that you can make about three things: 1.) The trajectory of the bullet just prior to impacting the victim's skull, 2.) The trajectory of the bullet as it entered the truck or 3.) The speed of the bullet as it struck the victim.*

Dr. Leigh Hlavaty: *Well, the fact that the bullet passed through an intermediary object makes all of these questions difficult, if not impossible, to answer. Whatever trajectory this bullet was on changed as soon as it passed through the intermediary object. Now, some say that the bullet starts to tumble after passing through such objects, but experience in a larger sense, this is not always the case. But what we do know and can answer to is that the bullet struck the head and travelled from right to left, slightly forward and slightly upward, while it was within the head. And whatever speed bullet was traveling prior to striking the window was faster than the speed it was traveling when it struck his head.*

Colin Miller: *And in this case, the caliber of the bullet couldn't be identified from the pieces of the bullet that were recovered from the victim, but there was a .9 millimeter casing that was discovered about 550 feet south on the roadway and a law enforcement officer concluded that a .9 millimeter was used to commit the shooting. Do you find that to be consistent with the victim's injuries, here?*

Dr. Leigh Hlavaty: Well, the injuries are consistent with being inflicted by a handgun, so yes, it's possible a .9 millimeter could have fired that shot. But as a forensic pathologist, by expertise is the injuries created by the guns and not the guns or the bullets themselves. With regards to the bullets, we are basically just technicians, retrieving them from the body so that the ballistics and firearms examiners can examine them. And so it would be that type of examiner that would be best be able to answer your question regarding the fragments the recovered casing.

Now, with that being said there are couple things that we do know. We do know that four piece of lead were recovered from the head at autopsy. The jacket, which would have had the marks or striations that could have linked this bullet to a particular weapon were not recovered, so that information is lost. And the core was fragmented and not all of it was recovered, and thus it was not available to be reconstructed so the information regarding caliber is also lost. And then there are things like .38 caliber, a .357 caliber and a .9 millimeter caliber all have jacketed rounds and all have a similar, although not identical, diameter.

So this is a very complicated science with a lot of moving parts, so I would definitely ask the ballistics and firearms examiner about how the casing links to the core fragments in this particular case.

Colin Miller: Yeah, and you just mentioned the diameter, and in this case the wound tract had a one-inch diameter, and could that indicate the bullet was tumbling at the point of impact here?

Dr. Leigh Hlavaty: Well, the bullet was not tumbling per se, but it had deflected from its initial trajectory once inside the vehicle and even more so once inside the head. And it was a deformed projectile because it struck something else. So, you would expect a wound path that would be wider than the width of an intact bullet. Now, the one-inch measurement is an approximation and it can be a bit deceiving. In this case, it is a measurement of the wound tract, which again, in this case includes destroyed brain, bone fragments, core fragments, hemorrhage and swelling of the surrounding tissue. So it is clearly more expansive than just the width of a bullet itself.

Colin Miller: And you mentioned earlier the pseudo stippling and there was this pseudo stippling that was found on the right side of the victim's face. Are you able to tell how far away from the broken glass one has to be before pseudo stippling does not occur?

Dr. Leigh Hlavaty: Well, there's no set distance for these types of determinations. As long as the small fragments can reach the skin, they can injure the skin. But it's not unusual to see pseudo stippling from rear car windows on gunshot wound victims that were seated in the front seat of a vehicle or vice versa.

Colin Miller: Now, earlier I mentioned a bit about the timing here. The CT scans in the case have a timestamp of 8:16 P.M. and those scans seemingly show a brain that has bullets in it, but the earliest time that anyone reported the victim's injuries were actually caused by a gunshot wound and not a motor vehicle accident was 9:07 P.M.. Is there anything that you can tell about why it might have taken about 50 minutes in this case after the scan before anyone identified it as a shooting case?

Dr. Leigh Hlavaty: Well, as a forensic pathologist I cannot directly answer those questions. An ER doctor can best answer how a gunshot wound can be initially missed and a radiologist can be the one to best answer how CT scans are read and reported and reasons for apparent delays. I can say, though, that in my experiences, even here in Detroit, with a consistently high homicide rate and several level one trauma centers, we do rarely get cases where the immediate circumstances of a motor vehicle accident overshadows the initial scene investigation, and so a gunshot wound may be initially missed by investigators, cases where once in the ER, trauma has been missed or mis-diagnosed as to type. For instance, a laceration from a blunt force wound mistakenly interpreted as a stab wound, and even cases where CT scans are not read, or reported, in what seems to be a timely fashion. So, again, these things do happen, but the other specialists can best address the hows and the whys.

Colin Miller: And finally, we've gotten a lot of questions about a photograph we've shown to our listeners, it's, we think, the inside of the driver's side door and it appears to show something along the lines of a red tube or blue streak and was taken at the crime scene but there's no records concerning what it depicts. Is there anything that you were able to tell from looking at this image?

Dr. Leigh Hlavaty: No. I couldn't determine anything from looking at that image.

Colin Miller: Well, Dr. Hlavaty, thanks so much, our listeners and we really appreciate your expertise and for taking the time out of your busy schedule to look through these records and help us out with some of this very interesting and complicating medical and ballistics evidence in the case.

Dr. Leigh Hlavaty: You're welcome.

Colin Miller: Now, all of the testing we discussed in the first part of the episode was done on March 1st, 2000. But then, ten months after isaac's death in November 2000, a second round of forensic testing was requested. This time, the testing had a different goal. Establish that the bullet that killed isaac was not shot from a gun owned by Heath Wilson. Now, as you might recall, Heath Wilson was the guy in the older model blue Honda involved in the other highway shooting on January 11th, 2000, on the west side of Rome on Highway 20.

He was arrested four days later for that shooting after an officer saw him firing a gun behind his girlfriend's house. Although, initially, Heath and his girlfriend pretended that a .380 had been the gun that Heath was firing, his girlfriend quickly folded under questioning after an officer pointed out that the .380 had not been fired recently. So, she went back in and brought out a different gun. This one a .9 millimeter, recently fired.

Susan Simpson: Which is kind of an awkward fact if you're trying to convict someone else of committing another highway shooting that was done that night with a .9 millimeter. But there are a lot of .9 millimeters in the world, and all they had to do was prove that it wasn't this particular .9 millimeter that had been the one that was used on Highway 27.

Conveniently enough, on November 20th, one week after Joey and Mark were arrested for isaac's murder, the GBI issued a report concluding that Heath's .9 millimeter had not been used to shoot isaac. Here's what Jarvis testified to.

Colin Miller: "I was asked to test fire Heath's .9 millimeter and compare it with the cartridge case that had been submitted on the Dawkins homicide. I compared the -- primarily the cartridge case was obviously in the best condition and I compared that with the test cartridge cases that I fired in the Kel Tec pistol." And then later, we have Jarvis testifying and giving the answer that, "the cartridge case taken from scene where Mr. Dawkins was shot was not fired from the Kel Tec pistol."

Susan Simpson: Two weird things about this testimony, though. The first thing is that no one ever asked Jay Jarvis or the GBI to make a comparison between Heath's .9 millimeter and the .9 millimeter casing. The only other request for testing in this case following the March request to associate the fragment and jacket and casing, came from Sutton on November 2nd, because a few days earlier, before that, isaac's mother had found a bullet in her backyard, so she gave it to Sutton and Sutton gave it to Jarvis for testing, and I could only guess that Sutton was hoping this bullet would somehow be connected to the death of isaac's dog and then would match the bullet recovered from the crime scene, but that's just me guessing because this test was never disclosed to the defense and all we know of Sutton's intentions for it comes from the form he submitted to the GBI, which requested that Jarvis analyze the bullet from the Dawkins yard and, "compare projectile to projectile from head."

Anyway, for some reason, even though the only request made to the GBI was to test the yard bullet, a couple weeks later, Jarvis issued a report that also, randomly, went ahead and testing Heath's Kel Tec and found it didn't match the cartridge casing at the crime scene.

Colin Miller: Yeah, and this brings us to the second weird thing about Jarvis' findings. Although he recorded numerous ways in which crime scene casing and fragment and the test fired bullets from Heath's .9 millimeter were identical, Jarvis concluded they nevertheless were not a match based on his opinion as an examiner. For instance, the jacket fragment had a groove width of .100, according to Jarvis' reports, while the test bullets fired from Heath's .9 millimeter had a groove width of .100102. And the jacket had six grooves with a right-hand twist while the test bullets had six grooves with a right-hand twist. Also, on Jarvis' drawing of the test bullet cartridge casing, every little mark he has, made to show various impressions left in the metal, match the markings he made in his little drawing of the cartridge casing found at the crime scene.

Despite these similarities, though, Jarvis' report states the test-fired bullets and the crime scene evidence didn't match due to "unspecified differences in their individual and class characteristics."

Jay Jarvis: I think I -- according to what I've written here that the -- it had different class and individual characteristics, so.

Clare Gilbert: Along the edges of the...

Jay Jarvis: Land impression width. Which would be the groove of the bullet.

Clare Gilbert: So... so what that means is the metal jacket fragment -- you compared the metal jacket fragment to the Kel Tec .9 millimeter.

Jay Jarvis: Uh, apparently so. Yes.

Clare Gilbert: And it had similar groove impression width to the gun. But different class and individual characteristics along the --

Jay Jarvis: Along the edges of the land impression width or the groove of the bullet.

Colin Miller: But the problem is that the year 2000 was still very much the stone age for the GBI in terms of documentation. Jarvis' rough, hand drawn sketches were all the recording that he's ever made. Here's Clare asking him about what he would have done different if he were examining the case now.

Clare Gilbert: And what would that documentation have possibly shown you that's not documented here?

Jay Jarvis: I think I would have been a little bit more specific as to what the class and individual characteristics that were different. Maybe even taken a picture. I don't know.

Clare Gilbert: Yeah.

Susan Simpson: I asked Chris Robinson about this when I spoke to him, also back in April, and he confirmed what Jarvis would tell us. That this pattern of recording measurements that all match between two pieces of evidence but recording that the evidence was not a match due to unrecorded unspecified attributes that didn't match was utterly normal.

Chris Robinson: I understand what you're saying, on the bullet, but he must have been competent. You're looking at individual characteristics that the way the gun marks these these bullets and if he saw enough, he was able to determine that they couldn't have been from that Kel Tec, what he thinks.

Susan Simpson: So, let's break that down into the -- looking just at the jacket fragment.

Chris Robinson: Okay.

Susan Simpson: So you're saying that in terms of just that metric alone you would consider a .100 and a .100102 a match?

Chris Robinson: It's the same rifling structure and the same width of the groove.

Susan Simpson: Okay.

Chris Robinson: That's GIW groove impression. So, he's saying it's within this code, yes ma'am. And when you look at it under 15 to 20 times magnification, you can tell if the -- if it's even close. The individual characteristics, it's how it makes those defects in the groove impressions and on the land impressions, he may have -- he must have seen something.

Susan Simpson: He also noted that there were a lot of weapons that could have left a bullet with six grooves in a right-hand twist, or could match a .100 GIW measurement, which is a measurement of the groove left by the rifling in the barrel.

Chris said that there was no way he could evaluate Jarvis' work based on these reports, but even though there's no way to know why Jarvis had concluded what he had, Chris could only assume that Jarvis had gotten it right. To a ballistics expert, he said, it would have been plain as day.

Chris Robinson: And I have to be honest, a Ruger is a Mona Lisa. A Kel Tec looks like my 9 year-old daughter painted it. That's what it's gonna look like under a scope. It's gonna be just like that. Kel Tecs are ugly. I mean, they're gross in the fact that the breechface is so rough, but you'll-- you just said, you can match it, but it's not even close compared to a Ruger versus a Kel Tec. I know where you're going with that, and I would love for that to be the case, and I understand from a layperson's perspective, what you're saying to me is the pictures look the same, their locations, everything looks great. I understand that. And again, we take pictures of all these today. The GBI does, I don't. But the GBI does.

Susan Simpson: It's just frustrating that he records information that the same between them both, and then doesn't record the information that's not the same between the two.

Chris Robinson: That's true. That's true. I agree with that. I agree with that part. But again, and again, that's -- for me, I know what he's talking about. And again, that's why we look at everything. We look at who is the examiner of the case, it's the first thing I ask about. Because then my doubts kind of, when I realize, certain people are working cases I'm thinking, ooh, if you told me Kelly worked it, I would say you're done. Cause I trust Kelly, cause he's was the last -- he trained me. He's the best.

Susan Simpson: Anyway, the fact that the stuff that's all the same would be recorded and the stuff that actually made the bullets not a match would just be summarized as not the same, that's kind of a thing they do on purpose.

Susan Simpson: Cause the lack of documentation really bothers me, but we don't know -- cause right now that's, from my understanding, that's all we know. Is that there's different, unspecified, individual characteristics even though the measurements match.

Chris Robinson: We do that on purpose because we want it short and sweet. When you run off at the mouth and start typing up reports that go on for pages, you're just painting yourself a hole. I'm telling you, it doesn't match. And then if you start asking me questions like you're asking me right now, then I'll explain it to you, of course. But I understand where you're coming from, from the layperson, or from someone who doesn't deal with the firearms spiel, you would want more, but as long as he can explain it to you...

Susan Simpson: In other words, it turns out that the field of ballistics evidence is a field that was carefully calculated to drive me totally bonkers. This is Clare and I on our interview with Chris Robinson, discussing our shared frustration.

Clare Gilbert: I mean he was -- he was claiming that in the case of a Ruger in particular, it's so easy. And so he didn't need more information to be able to draw the same conclusions, right?

Susan Simpson: But I do. I'm sure that's how it's usually done in their trade, and they trust other examiners to know basic differences, but when those differences aren't even recorded?

Clare Gilbert: Right, and the similarities are.

Susan Simpson: I mean, there is zero chance for a defense attorney to examine this evidence without getting their own expert in there to look at the evidence. Which they should, that should be done anyway. But even just based on the records and reports, there should be some ability to evaluate the work done. And he even acknowledged, he's like, yeah, sure all the recorded information's a match, but that's not what matters here. Gah!

Susan Simpson: My frustrations with the epistemic basis of forensic fire evidence aside, it is very possible that the .9 millimeter handgun Jarvis tested didn't have anything to do with Isaac's murder. Jarvis did examine these pieces of evidence under a microscope and concluded that various scratches on them didn't line up. And hopefully, at some point, Chris Robinson will be able to also evaluate the evidence and give his independent assessment. But for now, even if I have no way to evaluate whether Jarvis' conclusions were correct, I certainly have no way to find that they were not. So I'm willing to tentatively assume that Jarvis got it right.

Colin Miller: Yeah, but there's also another problem and that's the fact that regardless of the reliability of the forensic testing that was performed, there's something very important that's missing from the prosecution's claim that Heath's .9 millimeter was not a match for the ballistics evidence found at the crime scene, here. And that's proof that the gun Jay Jarvis tested was actually the gun that was collected from Heath Wilson.

This takes us to the legal process of chain of custody and chain of custody is the process by which a party accounts for every hand that has handled the evidence in the case. And establishing this chain of custody is critical, because it's how a party establishes that the evidence presented at trial is the same evidence seized, as well as being in substantially the same condition as when it was seized. Because that's the problem. If it's not the same evidence, of course, it's irrelevant, and if it's not in substantially

the same condition, it can render any testing or conclusions regarding appearance dangerous and misleading.

In this case, however, the chain of custody is often non-existent. It's not just Heath's .9 millimeter that has a problem. There isn't a single piece of evidence I'm aware of that is documented from the time of its collection to the time of Joey's trial. For everything, there are gaps in the record that require guessing to fill in.

Let's start with the .9 millimeter shell casing, the one collected from the northbound shoulder of Highway 27 south. We know the Lee Carter, the accident reconstructionist, is the one who actually found it the day after Isaac wrecked. Moser came to the scene, where he photographed it and collected it, 3:20 P.M., according to the inventory sheet that he filled out. But there's no documentary record of what happens to that shell casing for the next 30 days after that. Our only clue comes from Moser's testimony at Mark Free's trial.

Lawyer: Did you take that casing into custody?

Detective Moser: Yes.

Lawyer: Alright, what'd you do with it?

Detective Moser: I turned it into evidence a time later which was -- at the time Sergeant Levone Ward was the evidence custodian for the Rome Police Department.

Lawyer: Alright. Did you -- how do you handle evidence like that?

Detective Moser: Well, you label the container or you label the package. You seal the package and of course you put the evidence label on the package indicating when you received it, when you recovered it, whom you received it from. A chain of custody, if you will, from when you first found the item.

Lawyer: Alright. And did you do that with this casing?

Detective Moser: Yes.

Lawyer: And did you put your name on there?

Detective Moser: Yes.

Lawyer: Did you label what it was?

Detective Moser: Yes.

Lawyer: Now, you held on to that for awhile, did you not?

Detective Moseer: Yes.

Lawyer: For what reason?

Detective Moser: Well I didn't know -- I secured it in a lockbox that I have and only have a key to it, but I didn't know if any time during the investigation I would come upon the weapon that I believed to have been involved and I would have had immediate access to both items to take to the crime lab for analysis. But I did not recover that item, and turned it in to Sergeant Ward.

Lawyer: Alright, but at some point after that you did.

Detective Moser: Yes.

Susan Simpson: It seems a little bit weird that a detective would have a personal evidence lock box, I guess, but maybe that's just how they did things normally. What is really weird, though, is Detective Moser's claim that he was keeping it in his personal lock box so that he'd have immediate access to it for testing if and when he came across the weapon he believed to be involved in the shooting. I mean, aside from the fact that I can't see why Moser would have lacked immediate evidence if it was held in RPD's evidence locker, Moser also didn't send it in for testing when he did come across a weapon that might have been involved.

Colin Miller: Because on January 14th, the police did recover a .9 millimeter used in a highway shooting on the day isaac was shot, and that police thought may have been connected to isaac's death. That's the gun that Heath Wilson was firing in his girlfriend's backyard just before his arrest in the Friday after the murder, and that he initially denied having, until his girlfriend brought it out to the officer.

And in fact, according to the arresting officer's report, Heath then declared, "That if something had happened with that weapon, it did not belong to him, it belonged to a friend at work."

But Moser didn't send this .9 millimeter casing recovered from the scene in to be compared against Heath's gun. He just held it for a month, and then gave it to the Rome Police Department's evidence

custodian, Levone Ward. But here's where it gets weird. According to Moser, he properly sealed the .9 millimeter casing and kept it in his personal lock box for 30 days until he handed it to RPD's evidence custodian. But at Mark Free's trial, Fred Simpson, the prosecutor, called that Custodian Ward to testify. And Ward testified immediately after Moser at Mark's trial, which should have made the contrast between the two testimonies more startling. This is Ward testifying and direct.

Custodian Ward: Yes, sir, it is identified as the stint .9 millimeter shall casing, that I received from Detective Moser on February the 11th of the year 2000.

Lawyer: For what reason did you receive that item?

Custodian Ward: For safe keeping and then to transport it to the state crime lab.

Lawyer: When you receive items such as this, do they come to you sealed, or do you seal them?

Custodian Ward: This one came to me in the plastic bag, but it had not been sealed, I placed the evidence tape here on it. State crime lab requires it be sealed before we transport it.

Lawyer: Okay, so before you transported it, you sealed it.

Custodian Ward: Yes, sir.

Susan Simpson: What the heck? Officer Ward remembers that this evidence came to him unsealed. And same goes for the jacketed portion of the bullet. Now, remember, this is from Mark's trial, not Joey's, and prosecutor Fred Simpson's doing the questioning. Tami Colston was appointed as a Floyd County Judge immediately after Joey's conviction, which is why she wasn't available to be a prosecutor at Mark's trial. And at Joey's trial, none of this came out. Colston didn't call any witnesses to speak to the chain of custody and she certainly never asked Moser if he'd sealed the evidence he collected and hinted at over-seal to the evidence custodian.

Moser only testified that, I placed them into evidence and then, eventually of course, it was requested for exam through the GBI and it was sent there, yes.

But given this gap and this failure to match between the testimony of Ward and the testimony of Moser, it makes sense that Colston simply avoided the whole chain of custody question of Joey's trial. And it almost seems like Fred Simpson blundered into it by accident not knowing that his chain of custody witness was gonna contradict the RPD investigator on whether evidence was sealed or not.

Because I have no idea what's going on here, and for all I know, this is just bureaucratic sloppiness. Having officers keep evidence in private lock boxes before turning that evidence over a month later, unsealed, to the evidence custodian? But like, why even have a chain of custody if you're going to ignore it like that. The whole point of a chain of custody is that you can avoid dealing with questions like, why would a police officer keep ballistics evidence in a personal lock box and not document this fact anywhere? And, who unsealed the ballistics evidence before it was given to the evidence custodian, and what was the purpose in doing so?

Moser is an experienced cop. And, in general, from what I've seen of the files and investigation, he seems like a thorough and diligent detective. And, yet, he's saying that when he collected the evidence, he put it under seal and was keeping a close hold on it so he'd be able to test if the gun he believed was used in the shooting came to light, and he's keeping it in this personal lock box that no one else can access and then, two days after that casing was recovered, they've got a guy arrested for shooting another truck on the same night Isaac was shot, and when that guy's arrested, he was arrested with a .9 millimeter, and it's pretty clear from the testimony given at Heath Wilson's trial, that Moser was well-aware of this fact.

Here's FCPD officer Sergeant Dallas Battles describing how even from day one of the case, Floyd County and Rome Police departments were working together.

Lawyer: You were also concurrently assigned on the [unintelligible] investigation. If you found any information, you would make that vital to the Dawkins case. You remember the Dawkins case?

Sergeant Dallas Battles: Yes, sir.

Lawyer: And everybody in law enforcement within the whole county was trying to figure out what's been going on with the Dawkins case, is that correct?

Sergeant Dallas Battles: Yes, sir.

Lawyer: [Unintelligible] city, not necessarily a task force, but cooperative direction, is that right?

Sergeant Dallas Battles: Yes, sir.

Colin Miller: Yeah, in fact, Moser even threatened that Heath's .9 millimeter would be tested for ballistics evidence. On January 20th, Moser had a recorded interview with Heath's girlfriend, Tracy Dunn, who was 16 at the time. And Tracy swore up and down that Heath had gotten the .9 millimeter

on the same day that he was arrested, prompting Moser to tell Tracy, "We've got some ballistics tests to run on this gun, and some other follow up, that we just don't have the results yet." So he warned her she'd better be telling the truth about Heath not acquiring the gun until after Isaac's murder.

Susan Simpson: So, what's the next step in the investigation? If this case was a choose your own adventure book, I'm pretty sure that 99-percent of people would flip to the page for, "run ballistics tests on Heath's gun." But the Rome and Floyd County Police departments chose a different option. They flipped to the page for, "hold on to gun for ten months and keep no records whatsoever about where the gun was or has it for that whole time period."

Colin Miller: Yeah, because from a chain of custody stand point, Heath Wilson's gun disappears the moment he's arrested. The other gun that Officer Adams confiscated when Heath was arrested, the .380, did vanish that day, there's not another documented record of it in existence as far we can tell, but the .9 millimeter does reappear again in November, when Jarvis does a comparison to the crime scene ballistics. But where the gun was from January 14th, when Heath was arrested, up until November 2nd, when the GBI's chain of custody shows it being delivered to Jay Jarvis by Officer Boyd, for no apparent reason, with no documentation whatsoever recording the transfer, that's a complete black hole.

Now, at Heath Wilson's trial, the arresting Officer, Officer Adams, did testify that after he arrested Heath, he gave the gun to Sergeant Battles with the FCPD.

Susan Simpson: But that's the last we hear of it. No inventory sheet was made for it, no one wrote down what model gun it was, no one wrote down where it was being stored, no one wrote down how or if it was being sealed or secured. The only reason we only think we know its serial number is that on January 20th, Floyd County Investigator Jerry Boyd sent a request to the ATF for a trace on the gun that according to the request form that Officer Boyd filled out, had been collected from Heath Wilson on January 14th. The ATF trace came back showing the gun had belonged to some guy named Wallace Lee Hanson, but they never seemed to have attempted to talk to Mr. Hanson about this gun or why it may have been in Heath's possession in the first place.

Anyway, this is all bizarre to me. When I first went through the chain of custody records and saw -- or, more especially when I listened to Mark Free's trial and heard Moser confirm that the casing and jacket fragment didn't have a chain of custody to speak of, that shocked me. But when I saw the firearm record and realized that they had Heath's gun basically missing for a year with no one ever bothering to write down where it was stored, I was blown away. Because that's not normal.

Colin Miller: Yeah, it's standard operating procedure to have chain of custody and when there's any type of dispute about the evidence, you have the prosecution coming in and saying, "here's our chain of

custody," and when there are issues, certainly of this gravity, you would see defense council strenuously objecting saying this evidence is inadmissible, so, as an evidence professor, it's just shocking to see the lack of information. As you say, it's sort of this black where we have no idea where the gun was, what might have been done to it, if there could have been an error, something along those lines.

Actually this is a hypothetical I use in my class where it is a ballistics case and they're trying to match casings to the gun and it is, where the chain of custody is lacking and that's what I communicate to my students is to say, was this gun functional, could it have misfired, you know, matching the gun to the bullet and that's exactly the case here.

So let's recap. Heath's gun was missing in action at the same time Moser was announcing he's going to run ballistics tests on Heath's gun, and was holding the .9 millimeter from the crime scene in a private lock box, which he testified was because he wanted to have it available for immediate testing if and when a gun was located. Then, three weeks later, according to the evidence officer, Moser gave up on finding any gun connected to Isaac's murder, so he turned the casing and jacket fragment over to RPD's evidence officer, Ward. But when Ward collected the casing, it wasn't under seal. Nor was the jacket fragment. Ward had to be the one to seal them himself.

Susan Simpson: But it probably doesn't matter, right? I mean, it's not like there could ever be a secret forensics case number that the GBI would use to store the results of analysis that were favorable to Joey. But store it in a way that was unconnected to the rest of the Dawkins case, and therefore be unavailable to the defense. Because that's crazy talk, yeah? Of course it is.

Anyway. So maybe there's a reasonable explanation for all these problems with the chain of custody, but since Detective Moser won't talk to us, we can't ask him.

There is one thing I'd really like to know, though. Detective Moser's investigation notes show that he actually did do some kind of further investigation into Heath's gun. Although we don't know what he looked at or who he talked to. But Moser found something. Which led to him writing in his notes in the Dawkins case, "Heath got gun Wednesday, not Friday."

Which is a direct contradiction of what Heath testified to at his trial in 2002.

Lawyer: *Did you go to Walmart on the 14th?*

Heath Wilson: *Would that have been the Friday?*

Lawyer: *Friday.*

Heath Wilson: Yes, sir. I did.

Lawyer: Okay. Why did you go to Walmart?

Heath Wilson: I had just got a gun that day from a friend at work and --

Lawyer: Why did you get a gun?

Heath Wilson: I was gonna go target practicing with my stepdad.

Lawyer: And why were you gonna go target practicing?

Heath Wilson: I just wanted to shoot it. I just wanted to shoot [unintelligible].

Susan Simpson: In fact, even as Heath was being arrested, he made this claim to the officer.

Lawyer: So, the officer puts you -- does he tell you you're under arrest for aggravated assault?

Heath Wilson: No, sir.

Lawyer: Did he tell you anything about -- about what was supposed to be done with the gun?

Heath Wilson: Um. He told me, he said, you better hope you didn't do what they say you did with that gun. And I told him I just got the gun that day, so I couldn't have don't anything with it.

Lawyer: You bought it from a co-worker, something like that, I think?

Heath Wilson: Yes, sir.

Lawyer: What happened with the gun, was that the gun that went into custody and went off for forensics examinations and all that stuff?

Heath Wilson: Yes, sir. That is the gun.

Susan Simpson: But, according to Moser's investigation, Heath actually had gotten that gun on Wednesday. Granted, Wednesday is still after Tuesday, which is the day Isaac was shot, but somehow, Moser got tipped off that Heath hadn't gotten the gun on Friday like Heath and his girlfriend had both

claimed. So, Detective Moser, if you're listening in, we'd really love to know where you learned that Heath had been lying about how and when he acquired that .9 millimeter hand gun.

Colin Miller: So. Given the weakness of the state's forensic and ballistics evidence against Joey Watkins, where did that leave the state? Well, as in the Adnan Syed case, it left them hoping someone would come forward to incriminate the defendant in the murder of the victim. And, as in Adnan's case, they had some assistance. A financial reward. But the reward in the Joey Watkins case made the 30 pieces of silver offered in Adnan's case seem like 30 pieces of copper. That said, the identity of the person who might've claimed the reward and how they might have used it are no less interesting.

Next time on Undisclosed.

Dennis Robinson: That wraps up the 12th episode of Undisclosed's second season. Listeners, if you could, do us a favor. There's a great podcast called the Vocal Minority Report. It's hosted lots of excellent guests, but most notably, as it pertains to the Undisclosed family, Vocal Minority Report has recently featured Rabia Chaudry and the host of Military Justice, James Weirick. The Vocal Minority Report has hosted a lot of other interesting people as well. It's fun, we enjoy it, we think you should go give it a listen. But for now, let's roll into the credits.

Big thanks, as always to the Georgia Innocence Project, they brought us Joey's case. Send them some love. You can do so at www.georgiainnocenceproject.org. Every buck you send their way is dedicated to helping exonerating the potentially wrongfully convicted. They operate on a shoestring budget, so every dollar matters.

Our great sponsors this week, long-time friend of the show, www.stamps.com, stepped up for us. Thanks Stamps. Our most comfortable sponsor, Casper, man, Casper thank you for that mattress, it's done wonders for my back. And the debuting ABC drama, conviction, folks, it's starts tonight, 10 eastern, 9 central, go watch it. You're gonna love it.

The folks that make this show sound great, Rebecca Lavoie of Partners in Crime Media and the great podcasts, Crime Writers On and These are Their Stories. Hannah McCarthy helps out Rebecca, with additional production assistance from Brooke Gittings of the podcast, Actual Innocence. The producer of all producers, Mital Telhan, puts this show together. Mital, I left you out of the credits last week, I'm real sorry. Please don't be angry with me. If I've got to go another week without getting an email from you, I think this whole thing is gonna fall apart.

Ramiro Marquez and Patrick Cortes did our wonderful theme music. Nina Mooser and Christy Williams on the website, at that website, you'll find people maps designed this week by Balooki, who also did

our logo. Thanks, Balooki. We're on the social medias at our handle, @UndisclosedPod. You're gonna see us on Facebook, Twitter, Instagram.

Hey, and guess what, if you didn't already know, but you probably already did know, I'm gonna say it anyway, you can ask our host, Jon Cryer of the Undisclosed Addendum a question about this week's Undisclosed Podcast. All you gotta do it tweet at Mr. Cryer with the hashtag: #UDAddendum. Tweet him a question and maybe, just maybe, he'll read it on air.

The executive producer of Undisclosed is Dennis Robinson, and he looks forward to seeing you next week for episode 13. Until then.