

Eyewitness: How Accurate Is Visual Memory?

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(CBS) It's a cliché of courtroom dramas - that moment when the witness is asked "Do you see the person who committed the crime here in this courtroom before you?" It happens in real courtrooms all the time, and to jurors, that point of the finger by a confident eyewitness is about as damning as evidence can get.

But there is one type of evidence that's even more persuasive: DNA. There have been 233 people exonerated by DNA in this country, and now a stunning pattern has emerged: more than three quarters of them were sent to prison at least in part because an eyewitness pointed a finger - an eyewitness we now know was wrong.

It was hot and humid in Burlington, N.C. on the night of July 28, 1984. Jennifer Thompson, then a 22-year-old college student, had gone to bed early in her off-campus apartment. As she slept, a man shattered the light bulb near her back door, cut her phone line, and broke in.

"I remember kind of waking up and turning my head to the side and saying, 'Who's there? Who is it?' And I saw the top of someone's head kind of sliding beside my mattress. I screamed and I felt a blade go to my throat," Thompson told **60 Minutes** correspondent **Lesley Stahl**.

Thompson said the man, armed with a knife, told her to shut up or that he would kill her.

Her first thought was to offer him anything she had to go away. "'You can have my credit card. You can have my wallet. You can have anything in the apartment. You can have my car.' And he looked at me and said, 'I don't want your money.' And I knew what was gettin' ready to happen."

She vowed to stay alert and study him so that if she lived, she could help put him away forever. "'What is his voice? Does he have an accent? Does he have a scar? Is there a tattoo?'" Thompson explained.

"He's raping you, and you're studying his face," Stahl remarked.

"It was just trying to pay attention to a detail, that if I survived, and that was my plan, I'd be able to help the police catch him," she replied.

After about half an hour, Thompson tricked the rapist into letting her get up and fix him a drink; she ran out the back door. He fled and raped a second woman half a mile away. Detective Mike Gauldin met Thompson at the hospital.

"The first comment I remember her making was that, 'I'm gonna get this guy that did this to me.' She said, 'I took the time to look at him. I will be able to identify him if I'm given an opportunity,'" Gauldin remembered.

Asked if she had been able to pick out any distinguishing characteristics, Thompson told Stahl, "He had a pencil-thin mustache. His eyes were almond shaped."

Detective Gauldin worked with Thompson to make a composite sketch, poring over eyes, noses, ears and lips in an effort trying to recreate the face she had seen that night. The sketch went out, and tips started coming in.

One of those tips was about a young man named Ronald Cotton. He worked at a restaurant near the scene of both rapes, and had a record: a guilty plea to breaking and entering, and as a teenager, to sexual assault.

Three days after the rape, Gauldin called Thompson in to do a photo lineup. He lay six pictures down on the table, said the perpetrator may or may not be one of them, and told her to take her time.

Gauldin said Thompson did not immediately identify a photo, taking her time to study each picture.

"I can remember almost feeling like I was at an SAT test. You know, where you start narrowing down your choices. You can discount A and B," Thompson said.

"Oh, like multiple choice?" Stahl asked.

"Exactly," Thompson replied.

According to the police report, Thompson studied the pictures for five minutes. "She picked up Ron Cotton's photograph and said, 'That's the man that raped me,'" Gauldin recalled.

He said Thompson was sure she had identified the right man.

Cotton heard the news from his mother's boyfriend. "He told me. He said, 'Ron.' He said, 'The police are looking for you.' And I said, 'For what?' And he told me, 'For rape.' And I said, 'I haven't committed such a crime like that,'" Cotton recalled.

Asked if he panicked, Cotton told Stahl, "I didn't panic. I tried to figure out, you know, why."

"He comes in and gives me a very detailed account of where he was, who he was with that night. As it turns out, that was a false alibi," Gauldin said.

"I realized later that I had got my weekends confused, so therefore it gave them reason to think that I was lying," Cotton explained.

"This was August 1, 1984," Stahl remarked.

"Right," Cotton replied.

Cotton went to the police to clear his name, but he didn't get to leave. He was locked up, and days later put in a physical lineup.

"I'm number five," Cotton remembered. "I was very scared, nervous. I was so nervous, I was trembling. I felt my body just shaking."

Gauldin says the men in the lineup were asked to step forward, speak, and step back.

"I could remember looking to the detective and saying, 'It's between four and five. Can I have them do it again?'" Thompson remembered.

And then she knew - it was man number five, Ronald Cotton.

She told Stahl she was "absolutely certain" she had picked the right man.

"Did anybody say to you, 'Good job?'" Stahl asked.

"Well, what was said to me afterwards was, 'That's the same person you picked out in the photo lineup.' So, in my mind I thought, 'Bingo. I did it right.' I did it right," she said.

In a week-long trial, the jury heard about Cotton's faulty alibi, his clothing that matched Thompson description, and a piece of foam found on her floor that seemed to come from one of his shoes.

And most powerfully, they heard from Thompson. In court, when asked if she recognized her rapist, she named Ronald Cotton.

"She called my name, pointed a finger. And that's all, that's all it takes, it seemed like," Cotton remembered.

Asked what that felt like, Cotton told Stahl, "It felt like someone pushing a knife through me."

It took the jury just 40 minutes to reach a verdict: guilty on all counts.

"He was sentenced to life and 50 years. And it was for me that moment that you know the justice system works. Because I am the victim, and he's a horrible person, and he will never, ever be free again," Thompson told Stahl.

Ronald Cotton was handcuffed, shackled, and taken to North Carolina's Central Prison. He was 22 years old.

"You know they say grown men doesn't cry, but it's a lie you know. I grabbed my pillow many times and hugged it, wishing I was hugging my mom, my dad, sister, brother. Wish it didn't have to be this way," Cotton told Stahl.

He started working in the prison kitchen, singing in the choir, and writing letter after letter to his attorneys, hoping to get a new trial. Then one day as he watched a new inmate being brought in, he had a strange feeling.

"I said, 'Excuse me.' I said, 'You look familiar.' I said, 'Where are you from?' He said, 'I'm from Burlington.' I said, 'I am too.' I said, 'You kind of resembling the drawing of a suspect in a crime in which I'm falsely imprisoned for. Did you commit this crime?' And he told me, no, he did not," Cotton remembered.

Cotton said he thought of the composite drawing when he saw the inmate.

His name was Bobby Poole, and he was in for rape. He started working in the prison kitchen too.

"The stewards were calling me Poole instead of Cotton," Cotton said.

People were mistaking the two men.

Then a fellow inmate told him he'd heard Bobby Poole admit to raping Jennifer Thompson and the other woman that night. Ronald Cotton won a new trial and his lawyers called Bobby Poole to the stand with Thompson sitting right there. It was the moment Cotton had been hoping for.

"Bobby Poole is in the courtroom. You look over there. What happens inside you?" Stahl asked.

"Nothing," Thompson replied. "As a matter of fact, the strongest emotion I felt was anger at the defense because I thought, 'How dare you. How dare you question me? How dare you try to paint me as someone who could possibly have forgotten what my rapist looked like, I mean, the one person you would never forget. How dare you.'"

Ronald Cotton was convicted again, this time given two life sentences. When the judge asked if he had anything he wanted to say, he stunned the courtroom by asking permission to sing a song.

"Decisions I could no longer make. Because my future's so unknown to me. And that I could no longer take," Cotton sang.

Seven more years went by, and then everyone in Central Prison was riveted by a big news story: the trial of O.J. Simpson.

"I would get my radio and put my earplugs in, and go outside, and sit in a corner," Cotton said.

There, he'd listen to the trial.

He was intrigued by something he'd never heard of: DNA. He wrote to his new attorney, law professor Rich Rosen.

Rosen warned him that there probably wasn't any evidence left to test, and if there was, DNA could cut both ways.

"Understand if the DNA comes back and shows that you did this crime, whatever legal issues we have don't make any bit of difference. You're gonna spend the rest of your life in prison," Rosen said.

"He warned you that if it comes up positive, you're sunk?" Stahl asked Cotton.

"I told him to put his foot down and go with it," he replied.

Packed away on the shelves of the Burlington Police Department was 10-year-old evidence from the two rapes that night. Inside one of the rape kits was a fragment of a single sperm with viable DNA. It proved what Ronald Cotton had been saying all along - that he was innocent, and that the rapist was Bobby Poole.

Within days, Cotton was back in court, this time, to be released.

"So not only do you find out that Ron didn't do the crime, you find out Bobby Poole did," Stahl remarked.

"It was just utter shock, really. Disbelief," Detective Mike Gauldin recalled. "I mean, by this time, this is 11 years later. And, you know, I know that I've been involved in a case where a man has lost 11 years of his life. And I was so sad for him and his family."

In the years since Cotton's conviction, Jennifer Thompson had married and had children.

Gauldin broke the news to her. "Her reaction: 'No, that can't be true. It's not possible.' You know? 'I know Ronald Cotton raped me. There's no question in my mind.'"

"It was like someone had just taken my life and, like, turned it upside down," she told Stahl.

Gauldin said Thompson cried and broke down. "I mean, she took it all on herself, you know, the guilt, you know, 'I did this to that man.'"

Thompson told Stahl she felt terrible shame. "Suffocating, debilitating shame."

But when she thought or dreamed about that night, it was still Cotton's face she saw. To get past it, she asked if he would meet with her at a local church. "I remember him walkin' into the church. And I physically could not stand up," Thompson recalled.

"She was nervous. Scared," Cotton said.

"I started to cry immediately. And I looked at him, and I said, 'Ron, if I spent every second of every minute of every hour for the rest of my life telling you how sorry I am, it wouldn't come close to how my heart feels. I'm so sorry.' And Ronald just leaned down, he took my hands...and he looked at me, he said, 'I forgive you,'" Thompson remembered.

"I told her, I said, 'Jennifer, I forgive you. I don't want you to look over your shoulder. I just want us to be happy and move on in life,'" Cotton recalled.

"The minute he forgave me, it's like my heart physically started to heal. And I thought, 'This is what grace and mercy is all about. This is what they teach you in church that none of us ever get.' And here was this man that I had hated. I mean, I used to pray every day of my life during those eleven years that he would die. That he would be raped in prison and someone would kill him in prison. That was my prayer to God. And here was this man who with grace and mercy just forgave me," Thompson told Stahl. "How wrong I was, and how good he is."

How is it that Thompson could have studied her rapist so carefully and still made this mistake? And how could she have failed to recognize Bobby Poole, the actual rapist, when he sat right in front of her in the courtroom three years later?

Now that DNA has exonerated more than 230 men in mostly sex crimes and murder cases, criminologists have been able to go back and study what went wrong in those investigations.

What they've honed in on is faulty eyewitness testimony: over 75 percent of these innocent men were convicted in part because an eyewitness fingered the wrong person.

At the heart of the problem is the fragility of memory. As one researcher told **60 Minutes**, we now know that memory is not like a videotape recorder - you don't just record an event and play it back.

Instead, memory is malleable, full of holes, easily contaminated and susceptible to suggestion, as in the case of Jennifer Thompson and Ronald Cotton.

"Before this case, did you think that there were a lot of innocent people put away?" Stahl asked Detective Gauldin.

"No," he said with a smile. "No, I didn't. Innocent people aren't convicted of crimes they didn't commit. I believed that."

Asked what he thinks now, Gauldin told Stahl, "I know better. I mean, well over 200 cases nationally. We've had a half a dozen in this state alone. The first, of course, was my case."

And as these innocent men have been freed in one state after the next, we've learned something else: that in all the cases where eyewitnesses were wrong, the real perpetrator was not in the initial lineup.

"When you're sittin' in front of a photo lineup, you just assume one of these guys is the suspect. It's my job to find it," Thompson explained.

And she did her job. She found the suspect's photo. The problem is the suspect, Ronald Cotton, was not the rapist.

"Bobby Poole's photograph was not in the photo lineup," Thompson told Stahl. "He was not in the physical lineup."

"When the real perpetrator is not in the set, is none of them, witnesses have a very difficult time being able to recognize that," explained Gary Wells, a professor of psychology at Iowa State University.

Wells has been studying eyewitness memory for 30 years. He says when the real guy isn't there witnesses tend to pick the person who looks most like him.

"I think that Ronald Cotton and Bobby Poole look very much alike. They have very similar lips, shape of their eyes. Their eyebrows kind of go up in a look of...surprise," Stahl remarked, looking at photos of the two men.

"Without him in the lineup, Ronald Cotton was the one who was in jeopardy," Wells said.

Wells says eyewitness testimony has two key properties: one, it's often unreliable; and two, it is highly persuasive to jurors.

"I can see why it's so persuasive. Someone says, 'I was there.' I mean, particularly a rape victim. You'd believe that person," Stahl remarked.

"You believe that person because they have no reason to lie," Wells said. "The legal system is set up to kind of sort between liars and truth tellers. And it's actually pretty good at that. But when someone is genuinely mistaken, the legal system doesn't really know how to deal with that. And we're talking about a genuine error here."

Wells walked Stahl through what went wrong, some of it counterintuitive. When Thompson spent five minutes studying the photographs, she and Detective Gauldin thought she was being careful.

"I didn't want to come across, I don't think, as somebody who's like, 'That's the one.' I really wanted to be sure," Thompson said.

Wells says that's no good. "Recognition memory is actually quite rapid. So we find in our studies, for example, that if somebody's taking longer than ten, 15 seconds, it's quite likely that they're doing something other than just using reliable recognition memory."

"So you're saying if she really recognized a guy, it would have been almost instantaneous?" Stahl asked.

"Quite quick, yes," Wells said.

He says a better way to have done the line up would have been to show Thompson photos or people one at a time, so that she would compare each one directly to her memory, rather than to one another. Wells showed Stahl a study in which more than 300 subjects were shown deliberately shaky videotape of a simulated crime.

"You come into, let's say, your office. You look out a window and you see some suspicious behavior. What happens is we tell them later then this person that you saw right there put a bomb down the airshaft there," Wells explained.

Then subjects are shown a lineup and asked to identify the bomber.

"That would be so hard. And I just saw it," Stahl remarked.

"And of course, you're particularly cautious right now. You know now, after we've talked, probably not to pick anyone," Wells said.

Stahl thought she knew who to pick from the lineup. She was confident it was number five, but she was wrong. The bomber was not one of the six men in the lineup.

"Isn't that bizarre?" Stahl asked. "Look what you just did to me. I'm mortified. I feel like Jennifer."

Wells says in real life, the mistake is often compounded by what happens next. Remember the seemingly innocent information Thompson says she got from police after she picked Ronald Cotton out of the physical lineup?

"That's the same person you picked out in the photo lineup." So, in my mind I thought, 'Bingo. I did it right,'" she told Stahl.

Wells studied what that reinforcement does. After half his subjects did what Stahl did - picking an innocent person from his lineup - he told them nothing, then asked them questions about what they'd seen. Very few felt highly confident about their choice.

"Only about four percent are saying they had a great view, which is good, 'cause we gave them a lousy view," Wells explained. "Only about three percent are saying they could make out details of the face. That also is good because they really couldn't."

But he told a second group of subjects, after they made the same incorrect choices, "Good, you picked the suspect."

"Now what happens is...40, almost 45 percent of witnesses now report that they were positive or nearly positive. Notice that over one fourth of them now say they had a great view and...it is what happened with Jennifer," Wells said.

"What this seems to be saying is that a reinforcement alters memory," Stahl remarked.

"It does," Wells agreed.

He says the solution is to have someone independent administer the lineup, someone who doesn't even know who the suspect is. And certainly not the detective on the case.

Gauldin agrees he shouldn't have been there when Thompson picked out Cotton.

"But nobody did anything wrong. I mean, that was the practice," Stahl remarked.

"Well, no. That was the common practice then," Gauldin explained. "It was the tradition. It was how it was done then. Law enforcement wasn't schooled in memory. We weren't schooled in protecting memory, treating it like a crime scene, where you're very careful, methodical about what you do and how you use it. I mean, we weren't taught that in those days."

But none of these errors explains perhaps the most puzzling part of this story: how it is that Jennifer Thompson could see Bobby Poole in the courtroom and not realize her mistake.

"You're looking into the face of the man who raped you, whose face you had studied so intently...and there's no flicker...nothing between you and Bobby Poole," Stahl said.

"Nothing," Thompson said. "And I've gone back there many times tryin' to think, 'Was there ever a moment? Did I ever look at him and think?' And I didn't."

Elizabeth Loftus is a professor of psychology and law at the University of California Irvine, and an expert in memory. She showed Stahl an experiment she says might help explain Thompson's mistake. She showed Stahl three different people's faces on her computer and asked her to study each one for a few seconds. A few minutes later, she gave Stahl a memory test.

"Which of these two faces do you recognize from the original study phase?" Loftus asked Stahl, showing her a pair of faces side by side - one she had seen before and one a new face.

Stahl correctly picked the person she had originally seen; for the next set of photos, Stahl was shown a slightly altered version of a face that she had originally been shown and a new face. She picked the slightly altered face which was on the left side of the screen. "I said left, but I wasn't 100 percent sure," she admitted.

And then came the tricky part of the experiment.

Stahl was shown the face from the original memory test on the right side of the screen, and the altered version of that face - the one she had just picked in the previous test - on the left. "Well, I'll tell you why I'm stymied," Stahl acknowledged. "Because I just picked this one, on the left, two seconds ago. But now I'm not sure, 'cause those two look very much alike to me. But I'm gonna tell you the left."

But Stahl was wrong. It was the one on the right. And that's the whole point of the study.

Loftus explained how, like the study subjects, Stahl had been duped. "So you saw this face. Then I gave you a test, where I presented you with an altered face...along with another one. So I pretty much induce you to pick a wrong face. Because I don't even have the real guy there. It's an altered version. And later on, when you now have a choice between the altered one and the real one, you stuck with your altered left...choice," she explained.

"This can help us understand why Jennifer can be sitting in a courtroom and be looking at Bobby Poole, the original rapist, and looking at Ronald Cotton, and saying, 'No, it's not Poole. It's Cotton.' Because she has been picking him all along," Loftus said.

"I begin to wonder whether there should ever be eyewitness testimony in trials...because of the tricks that memory plays," Stahl told Gaudin.

"I think what's important, though, is to understand that. Know that. Know it as a police officer, as an investigator, as attorneys," the detective replied.

"We need eyewitnesses. I mean, if we couldn't convict based on an eyewitness, that's giving a lot of comfort to criminals," Gary Wells said. "We have no choice. We have to find ways to make this evidence better."

And that's something Jennifer has tried to do ever since by telling her story to prosecutors, police, defense attorneys and she's had some success: her state, North Carolina, was the first in the country to mandate reforms by law, showing victims lineup photos one at a time and emphasizing that the right answer may be none of the above, having lineups conducted by a person who doesn't know who the suspect is, or not by a person at all.

One system now used in a handful of cities is computer software Mike Gaudin helped develop to have a laptop conduct photo lineups.

But law professor Rich Rosen says that in the vast majority of places, there's been no reform, and that needs to change. "This is something that police officers can and should be in favor of," he told Stahl.

"Because you're not getting the real guy off the street," Stahl remarked.

"Yeah," Rosen replied. "Bobby Poole raped other women because they went after Ron Cotton. So Ron is not the only person who suffered from this mistake."

Ronald Cotton, now 47 years old, has worked hard to rebuild his life. He works the late shift in a factory. He's been married for 12 years and has a 10-year-old daughter. They live in a house paid for with money North Carolina paid him in restitution: \$10,000 for each of the 11 years he spent in prison.

When he can, he joins Thompson in her campaign for reforms. One of the most amazing things to have come out of this miscarriage of justice is the most unlikely of friendships.

Thompson and Cotton say they speak on the phone about once a week; their families are friends, and they say they have a shared bond that is hard for most people to fathom.

"Have people ever met you for the first time when you're together, and said, kind of cheerily, 'Hey, how did you two meet?'" Stahl asked.

"Yeah," Thompson replied. "We get it on the airplane a lot [when] we're traveling. And I usually just go, 'You tell them.'"

Asked what he says, Cotton told Stahl, "Me and Jennifer, we would look at each other and laugh, you know. And finally we go ahead [and tell them]."

And they have recently co-authored a book, called *Picking Cotton*, in hopes that their story can inform and inspire others.

"Today when you talk about or think about what happened to you that night when you were 22 years old, whose face is there?" Stahl asked.

"Nobody's," Thompson said. "That to me is one of the most beautiful things is I don't have a face. Bobby Poole's dead. I don't ever have to worry about him ever hurting another woman. He died in prison. And Ronald Cotton is my friend."

Produced by Shari Finkelstein
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