

IN THE COURT OF CRIMINAL APPEALS OF TENNESSEE
AT JACKSON
September 10, 2002 Session

STATE OF TENNESSEE v. STEVE A. WHITE

Appeal from the Criminal Court for Shelby County
No. 98-10427 Joseph B. Dailey, Judge

No. W2000-01148-CCA-R3-CD - Filed May 23, 2003

The defendant, Steve A. White, was convicted by a Shelby County Criminal Court jury of attempted first degree premeditated murder, a Class A felony; theft of property valued \$10,000 or more but less than \$60,000, a Class C felony; and violating the sales tax law, a Class E felony. The trial court sentenced the defendant as a Range I, standard offender to an effective sentence of thirty-one years in the Department of Correction. The defendant appeals, claiming (1) that the evidence is insufficient; (2) that the trial court erred by denying his motion for a bill of particulars; (3) that the trial court erred by denying his motion to exclude evidence; (4) that the trial court erred by failing to instruct the jury after the prosecution asked a witness an inappropriate question; (5) that the trial court improperly excluded impeachment evidence; (6) that the trial court made several errors regarding the victim's testimony; (7) that the trial court improperly restricted the defense expert's testimony; and (8) that the trial court improperly allowed the state to make inappropriate comments during its closing argument. We affirm the judgments of the trial court.

Tenn. R. App. P. 3 Appeal as of Right; Judgments of the Criminal Court Affirmed

JOSEPH M. TIPTON, J., delivered the opinion of the court, in which JOE G. RILEY, and JOHN EVERETT WILLIAMS, JJ., joined.

James S. Haywood, Jr., Brownsville, Tennessee (on appeal), and Mark Mesler and Loys A. Jordan, Memphis, Tennessee (at trial), for the appellant, Steve A. White.

Paul G. Summers, Attorney General and Reporter; J. Ross Dyer, Assistant Attorney General; William L. Gibbons, District Attorney General; and James M. Lammey, Jr., Assistant District Attorney General, for the appellee, State of Tennessee.

OPINION

This case relates to a business partnership that existed between the defendant and the victim, Phillip Rouss, Jr. Kimo Coelho testified that in 1996, he and the victim were friends and worked on old cars in the victim's backyard. They decided to start an antique car restoration business and

named the business K&P Auto Restoration. The victim was going to contribute most of the capital for the business, Mr. Coelho was going to do most of the restoration work, and they agreed to split the profits equally. The defendant, who was the victim's neighbor and friend, said he had some money to invest and wanted to enter the partnership. In late 1996 or early 1997, the victim allowed the defendant to become a partner. Mr. Coelho said the defendant was supposed to be a silent partner, own one-third of the business, and handle the business's finances.

Mr. Coelho testified that the victim was paying a lot of money for health insurance and decided that the partners should try to get cheaper health insurance through K&P. During the insurance application process, a nurse gave Mr. Coelho a physical examination and told him that the application was for life insurance. He said that when he questioned her about it, she said that "this is what Mr. White wanted." He said that he failed the insurance company's health test and that the company mailed him a refund check made out to the defendant. He said that the insurance company also sent him a form showing that his insurance application had been for a life insurance policy.

Mr. Coelho testified that at some point, the defendant asked him and the victim to sign a contract giving the defendant ninety-eight percent ownership of the business. He said that the defendant told him the defendant needed ninety-eight percent ownership in order to get a write-off on his income taxes and that the three of them would continue to split the profits equally. He said that he, the defendant, and the victim met at a lawyer's office but that he and the victim refused to sign the contract. He said that at some point, the defendant and the victim signed a contract, but he did not know the terms. He said that all of the money that came into the business was given to the defendant and that the defendant was supposed to deposit the money into the business's bank account. He said that K&P's creditors began telephoning and asking for the money that K&P owed them. He said that he asked the victim to have the defendant bring K&P's accounting books to a meeting in order for the partners to go over them. He said the defendant told him the books were none of his business.

Mr. Coelho testified that he did not have a good relationship with the defendant. He said that one time after the defendant brought him and the victim lunch, he and the victim had diarrhea and stomach cramps. He said that when he and the victim formed the business, the victim's health was good but that by the time Mr. Coelho quit working for K&P in June 1997, the victim was not feeling well and had no energy.

On cross-examination, Mr. Coelho testified that during the time that only he and the victim owned the business, they did not collect sales tax on their restoration work. He acknowledged that the victim allowed the defendant to become a partner because the defendant was going to contribute capital to K&P. He said that when he collected money, he gave it to the victim or the defendant and that the defendant was not at the restoration shop very often. He said that the victim paid him \$300 cash each week and that he left the business because its bills were not being paid.

Jerry Albonetti testified that he met with the victim in January 1997 because the victim wanted him to become involved in a car restoration business. He said that a building was erected

for the business and that he landscaped the building. He said that he met the defendant in July 1997 and that during a conversation with the defendant, the defendant said, "I just don't know if Phil is going to be around long enough the way his health has been." On cross-examination, he acknowledged that he and the victim were friends. He said that in July 1997, the victim was in declining health and had flu-like symptoms. He acknowledged that he had not known the victim was suffering from actinomycosis, a fungal infection of the lungs, in the summer of 1997.

Tom Jackson testified that he met the victim through the defendant in July 1997. He said that he agreed to start managing the defendant's and victim's car restoration business and that he took over the shop during the third week of July. He said that he planned to make the business profitable and then turn it over to another manager. He said that although the defendant and the victim owned the business, they did not work there. He said that when customers paid him for restoration work, he gave the money to the defendant. He said that he gave a customer's money to the victim only one time. He said that his first paycheck bounced twice and that the defendant told him to get life insurance in order to protect the business if something happened to him.

Mr. Jackson testified that K&P's suppliers kept telephoning him and complaining that they were not being paid. He said that the defendant was supposed to be paying the suppliers and that the defendant told him the business was not making enough money to pay its bills. He said that the business should have been profitable and that he told the victim something was wrong. He said that the victim did not believe him and that he, the defendant, and the victim agreed to have a meeting in October 1997 in order to go over the business's accounting books. He said that during the meeting, the defendant tried to avoid talking about the books, got mad, and left the meeting. He said that while he was working for the company, the defendant talked about the victim's health several times and often stated, "Phil is not going to be with us much longer."

On cross-examination, Mr. Jackson testified that before he started working for K&P, he had been unemployed and trying to finish a new house he was building. He said that K&P's customers usually paid him with checks and that he gave the checks to the defendant. He said that although the business had a receipt book, it would not be an accurate reflection of how much money the business collected from customers because he only wrote receipts if customers requested them. He also said that the business had invoice sheets but that he never filled them out. He said that two weeks after he started working at K&P, David O'Daniel, the victim's friend, was hired to help him.

Mr. Jackson testified that he quit working for K&P because after the defendant stormed out of the October meeting, he knew that he, the defendant, and the victim would not be able to go over the accounting books. He said that at first, he thought the victim and the defendant owned the business equally but that the defendant later told him the defendant owned ninety-eight percent of it. He said that when he confronted the victim with that information, the victim did not know what to say. He said that after he left the business, the defendant told the victim that Mr. Jackson had been embezzling money from K&P. He said that he may have given the victim money that he received from customers more than once.

David O'Daniel testified that in July 1997, he began working for the victim's and the defendant's car restoration business. He said that he met the defendant his second day on the job but that he did not meet the victim for three or four months. He said the defendant had told him that he would probably not get to meet the victim because the victim "may not be around much longer." He said that he and Tom Jackson kept records of the restoration work and that Mr. Jackson collected money from customers and gave it to the defendant. He said that at some point, the defendant took the records out of the shop and never came back. He said that he saw the business advertised in a realty magazine, that he told the victim about the advertisement, and that the victim was shocked to learn the business was for sale. He said that the defendant had led him to believe that the defendant owned most of the business but that the victim had told him they owned the business equally.

On cross-examination, Mr. O'Daniel testified that sometimes in order to get paid, Mr. Jackson had to pay his salary from Mr. Jackson's personal bank account. He said that he or Mr. Jackson filled out an invoice sheet for every car they worked on. He said that after Mr. Jackson left the company, he started running the business and always wrote receipts for customers. He said he had never seen Mr. Jackson write receipts.

Josephine Rouss, the victim's wife, testified that she and the victim had been neighbors and good friends of the defendant and his wife for fifteen years. In late 1996, the victim and Kimo Coelho decided to form a car restoration business. The defendant told the victim he wanted to get involved with the business because he needed tax write-offs. The defendant became a partner and was supposed to handle the business's finances. She said that at some point, the defendant told the victim and Mr. Coelho that he wanted to put ninety-eight percent of the business in his name but that the victim and Mr. Coelho refused. She said the partners decided to buy some land in Atoka and put K&P's restoration shop on it. She said that when the victim and the defendant met to sign the sales contract for the land, the victim did not read it because the defendant said he was in a hurry. She said that although the land was supposed to be owned by the company, the victim later learned that the defendant owned it. She said that the contract the victim had signed made him a cosigner on the loan and, therefore, financially responsible for the property. She said that although she and the victim did not own the land, they had been making monthly payments on it since late 1997.

Mrs. Rouss testified that the shop opened in Atoka in April 1997 and that she and the victim put about \$25,000 into the business. She said that after Mr. Coelho quit working for them, the defendant and the victim changed the business's name to Top Quality Auto Restoration. She said that she and the victim never saw the business's financial records and that the defendant kept telling them the business was not making any money. She said that in October 1997, she asked the defendant to show her the company's financial records and that the defendant told her he did not have any. She said that she contacted Tom Jackson, who was managing the business by that time, and that Mr. Jackson showed her the financial information he had about the business. She said that with Mr. Jackson's records and records she had before the defendant became a partner, she was able to compile a booklet showing the business's finances. She said that in October 1997, she, the victim, the defendant, and Mr. Jackson agreed to meet at her home in order to go over the records. She said that before the meeting started, the defendant said, "You're not listening to me" and ran out the door.

She said that in December 1997, she, the victim, and the defendant agreed to have another meeting but that the defendant refused to speak to her because she was not a partner in the business. She said that she asked him to leave and that she and the victim never went over the business's financial records with the defendant.

Mrs. Rouss testified that after the December meeting, she and the victim realized that something was wrong. She said the victim got a copy of the partnership contract that he and the defendant had signed and copies of the business's bank statements. She said that she and the victim learned for the first time that the defendant owned ninety-eight percent of the business, that the defendant had moved the business's bank account from Boatmen's Bank to First Tennessee Bank, that the business had \$23 in its checking account, and that a \$100,000 life insurance policy had been taken out on the victim with the defendant as the beneficiary. She said that in early 1997, the victim was in good health but that by the end of the year his health was terrible. She said that in June or July, the victim began having stomach pain and numbness in his hands and feet.

On cross-examination, Mrs. Rouss testified that the victim used to have a problem with stomach ulcers and that he had two stomach surgeries in 1990. She said that as a result of the surgeries, the victim could not lie down after eating. She said that in 1996, before the victim and Kimo Coelho formed K&P, the victim had had stomach pain and that a doctor prescribed medicine for it. She said that in June 1997, the medicine was no longer helping the victim and that the victim returned to the doctor. She said that doctors discovered the victim had actinomycosis and prescribed Penicillin. She said that although the pain in the victim's stomach eased, by October 1997, he had stopped eating. She acknowledged that the victim saw a neurologist for the numbness in his hands and feet and that the neurologist diagnosed the victim with multiple sclerosis (MS). She said, though, that the victim got two second opinions and that both doctors said the victim did not have MS. She said that since the defendant's arrest in 1998, the victim's health had improved and he had started eating again. She said he still had numbness in his hands and feet.

Mrs. Rouss acknowledged that Boatmen's Bank mailed K&P's bank statements to her home. She said that at first, she and the victim looked over the statements before they gave them to the defendant. She said that later, they gave the statements to him without looking at them. She said that K&P was supposed to be her and the victim's source of income but that they never got any money from it. She acknowledged that in 1997, the victim made fifty-one deposits totaling \$20,000 into their personal checking account. She said that most of the money came from customers who were paying the victim for car parts he had purchased for them. She said she did not know why her and the victim's 1997 income tax return showed they had no income.

Dr. Richard Aycock, a gastroenterologist, testified that in December 1997, he examined the victim, who was complaining of abdominal pain, weight loss, and loss of appetite. The examination revealed that the victim's stomach was inflamed, and Dr. Aycock believed the inflammation was being caused by waste that was coming back into the victim's stomach from his intestine. The victim told Dr. Aycock that he thought he was being poisoned with lead and mercury, and Dr. Aycock had the victim's urine tested for heavy metals. He said that the victim's lead and mercury

levels were normal but that the victim's arsenic level was slightly above normal. He said that only people who worked around arsenic should have elevated levels of arsenic in their bodies and that he reported the results of the urine test to the police. On cross-examination, Dr. Aycock acknowledged that he did not routinely request heavy metal urine tests for his patients, that he did not tell the victim not to eat seafood before the test, and that some seafood contains arsenic. He said that the victim's arsenic level was "mildly above the normal range" and that the victim's urine was not retested.

Carl Long, a sales agent for American National Insurance, testified that in June 1997, the defendant came to his office and wanted to buy liability insurance for the defendant's business. He said that they also talked about life insurance for the defendant, the victim, and Kimo Coelho and that he gave the defendant insurance applications. He said that when the defendant returned the applications, they had been signed but their medical and beneficiary information had not been filled out. He said that the victim had signed the victim's application and that he telephoned the victim in order to get information about the victim's health. He said that he told the victim the application was for life insurance and that the victim said, "Well, what I really need is health insurance." He said that the defendant told him the defendant owned ninety-eight percent of the business and that he wanted to be named as the beneficiary on the victim's policy. He said he thought it was unusual that the defendant was buying life insurance for the victim and Mr. Coelho when the defendant owned most of the business. He said the defendant also bought a life insurance policy and named the defendant's wife as the beneficiary.

Mr. Long testified that about nine days later, the defendant returned to his office and wanted to know if the policies had taken effect. He said that he told the defendant no and that the defendant seemed a "little disturbed." He said that his company sent the premiums for the victim's life insurance to the defendant's home and that at first, the defendant paid the premiums. He said that in November 1997, the defendant came to his office, told him that the business was bankrupt, and asked if he could keep the victim's policy. He said that he told the defendant the policy would remain in effect as long as the defendant paid the premiums. He said the victim's policy lapsed in January 1998 for nonpayment of the premiums.

James Ferguson, a certified public accountant (CPA), testified that in July 1997, the defendant hired him to help the defendant file sales tax returns for the defendant's auto restoration business. He said that he also prepared a 1997 partnership return for the business and K-1 Schedules and individual tax returns for the defendant and the victim. He said the defendant gave him check stubs, cancelled checks, and bank statements in order to show the business's income. The defendant told Mr. Ferguson that he had made an initial capital contribution of \$12,200 to the business and that he made additional contributions of \$6,000 on February 8, 1997, and \$5,500 on February 14, 1997. The defendant told Mr. Ferguson that the victim was his business partner but did not say the victim had contributed any money to the business. As a result, Mr. Ferguson did not show on the victim's 1997 tax return that the victim had made any capital contributions to the business. The state introduced into evidence three checks in the amounts of \$12,200, \$5,500, and \$6,000, which were written to K&P from the victim's personal bank account. On cross-examination, Mr. Ferguson said that he had never seen the checks before.

Shane Christian, a special agent who investigates sales tax fraud for the Tennessee Department of Revenue, testified that he began investigating K&P in 1997 for restoration work it did from April to August of that year. He said that his investigation was based upon work invoices that K&P had given its customers, customer interviews, and sales tax returns K&P had sent to the Department of Revenue. He said that after he reviewed K&P's work invoices, he contacted customers to verify the amounts of restoration work and sales tax charged on the invoices. He said that K&P should have collected sales tax "when the work was actually completed and the invoice was written up documenting the work completed and the owner took possession back of his vehicle." He said that as a result of his investigation, he figured that K&P had underpaid the Department of Revenue \$680.49 for the five-month period. He said that all of the checks K&P sent to the Department of Revenue were signed by the defendant.

On cross-examination, Mr. Christian testified that only one customer, Frederick Smith, disputed the amounts on the work invoices. He said that although Mr. Smith's invoices showed he had paid K&P \$3,050, Mr. Smith claimed in his affidavit that he paid the victim \$2,500. He acknowledged that if the defendant had not seen the invoices and had not been at the shop to collect customers' money, then the defendant would not have known how much money the business was making. He said that nothing indicated K&P had paid sales tax before May 1997.

CPA William Watkins testified that he had been hired by the state to review the defendant's, the victim's, and K&P's financial records. He said that he obtained records from the Tennessee Department of Revenue's sales tax investigation of K&P and that he compared them to James Ferguson's business records. He said the victim made more than \$30,000 in capital contributions to the business in 1997 and that the victim's 1997 K-1 Schedule claimed a business loss of about \$11,500. He said that the defendant's 1997 K-1 Schedule claimed a \$29,000 loss and that normally, partners' loss amounts should be the same. He said that although the state's records showed K&P had \$40,000 in sales in 1997, the defendant's records showed sales of \$25,000. He said that \$9,000 in cash was unaccounted for. He said that the business had no profits and that the defendant's record keeping was "somewhat shoddy." He said that from the end of 1996 until the end of 1997, the defendant had nine credit cards and had amassed over \$89,000 in credit card debt.

On cross-examination, Mr. Watkins acknowledged that cash received from customers and paid directly for business expenses would not be reflected in Mr. Ferguson's records and could account for some of the discrepancies between Mr. Ferguson's records and the Department of Revenue's records. He said, though, that the Department of Revenue had collected sworn affidavits from K&P customers, showing how much each customer paid K&P. He said that the defendant had deposited \$42,000 from the defendant's personal checking account into K&P's account and that \$10,000 of that amount was deposited after April 30, 1997. He said the victim deposited only \$300 into the business's account after April 30. He said that the defendant made many cash withdrawals from the defendant's credit card accounts and that the defendant had no cash deposits into his personal checking account from January 1997 to February 1998.

Judie Hayes testified that in 1997, she worked at Boatmen's Bank. She said the victim had a business account at the bank and that the defendant was an authorized signer on the account. She said the defendant changed the address on the account in order to have the account's bank statements sent to his home instead of the victim's home. She said that she told the victim about the address change and that the victim said it was alright. She said that the defendant asked her about getting a business loan and using the victim's house as collateral. She said that when she told the defendant he could not do that, the defendant got upset. She said that she told the victim about the defendant's wanting to use the victim's house as collateral for a loan and that the victim was surprised. She said that the defendant often insulted bank employees and that he became upset with her once because she refused to do some things he had requested. She said that in August 1997, she saw the victim in the bank and that he was in a lot of pain and had lost a lot of weight.

Angie Whiteside testified that in 1997, she was a waitress at the Lone Star Steakhouse in Bartlett. The defendant was a regular customer, and Ms. Whiteside usually waited on him. She said the defendant was nice and tipped her well. She said that he rarely left a tip that was less than ten dollars and that he once left her a sixty dollar tip. She said that the defendant's average food bill was fourteen or fifteen dollars. On cross-examination, she said that she was not aware of any time the defendant had access to other people's food.

Phillip Rouss, III, the victim's son, testified that his family lived next door to the defendant's family. He said that one night in 1997, the defendant brought coldcuts of ham, salami, and bologna to his family's home and that he and the victim ate the meat. He said that for several days afterward, he had stomach cramps. He said that on January 1, 1998, he and the victim went to K&P to look at some cars that were being restored. He said that the victim had filed a civil lawsuit against the defendant, that the defendant was not supposed to be near the victim, and that the victim had changed the locks to the shop. He said that while he and the victim were in the shop, he heard a car outside. He said he looked out the peephole in the front door and saw the defendant get out of the car. He said the defendant was carrying a hammer and started beating it on the front door. He said the defendant was screaming and wanted inside the building. He said that the victim called 9-1-1 and that the defendant began beating on the back door. He said that the defendant left and that the police arrived a short time later.

Mr. Rouss testified that the police stayed at the shop for about thirty minutes. He said that after they left, the defendant returned with a man named Gary Roebuck. He said the defendant smeared epoxy glue over the peephole and began breaking off keys in the shop's locks. He said that the victim called 9-1-1 again and that the police arrived and arrested the defendant. He said that while the defendant was sitting in the back of a patrol car, the defendant said that the victim had gotten arsenic in his system from eating too much seafood. He said Mr. Roebuck was nervous, did not seem to know what was going on, and was not arrested.

Mr. Rouss testified that later that day, the defendant rode by the shop again. He said that the victim telephoned the victim's lawyer and that the lawyer believed the defendant wanted something inside the shop. He said the lawyer told the victim to telephone the police and ask them to search

the building. He said that when the victim called the police, Detective Doug Bailey told the victim to search it. He said that he, his brother-in-law, and the victim searched the shop. He said that he found an envelope behind a fuse box and that the envelope contained metal shavings. He said that during 1997, he and the defendant had discussed the victim's health and that the defendant did not believe the victim was going to live very long.

On cross-examination, Mr. Rouss testified that the victim claimed in the civil lawsuit that the defendant stole money from K&P. He said the victim also believed the defendant was poisoning him. He said that although the victim had been treated for actinomycosis in 1997, the victim continued to have stomach pains and looked ill. He said that he never heard the victim complain about his stomach burning or say that the victim was going to die. He said that he gave money to his parents a couple of times per month and that they owed him about ten thousand dollars.

Tom Vastrick, a handwriting expert, testified that he examined handwriting on the envelope that contained the metal shavings. He said that he compared the handwriting with the defendant's handwriting samples and that the handwriting on the envelope matched the defendant. On cross-examination, he said that he also analyzed a signature on an American National Insurance Company life insurance policy and that the signature matched the victim.

Deputy Shannon Beasley of the Tipton County Sheriff's Department testified that on January 10, 1998, he responded to a disturbance call at a car restoration shop in Atoka. He said that when he arrived, the victim told him that the victim's business partner had tried to get into the shop and that the victim would not let the defendant inside because the victim was afraid the defendant was going to assault him. He said that the victim told him the defendant was trying to poison the victim and that the victim thought the defendant would return. Deputy Beasley left the shop but stayed in the area. A few minutes later, he was dispatched back to K&P. When he arrived, another officer had detained the defendant. The victim told Deputy Beasley that the defendant had returned to the shop and beat on the door with a hammer. Deputy Beasley said that he inspected the door and that it looked like someone had tried to pry the door open with a hammer claw. Epoxy glue had been smeared over the door's peephole, and the police arrested the defendant for disorderly conduct.

Deputy Beasley testified that the second time the defendant came to the shop, the defendant brought a man named Gary Roebuck with him. He said that Mr. Roebuck told him that the defendant had called Mr. Roebuck that morning and had asked Mr. Roebuck to go to the shop with him. He said Mr. Roebuck was six foot four inches tall, weighed two hundred fifty pounds, and did not appear to know that the defendant was going to try to force his way into the shop. He said that after the defendant was arrested and put into the back of a patrol car, the defendant said that he owned K&P's building, that the victim was crazy, and that he wanted the victim removed from the property.

On cross-examination, Deputy Beasley testified that when he arrived at the shop the second time, another officer had detained the defendant and that he did not see the defendant do anything wrong. He said that the other officer also did not see the defendant do anything wrong and that they

arrested the defendant based upon what the victim told them. He said the defendant was not arrested for trespassing because the officers did not know who owned the building.

Detective Doug Bailey of the Bartlett Police Department testified that on December 15, 1997, the victim came to the police station and told him that the defendant was poisoning the victim. He said that he thought the victim's story was unusual but that he began investigating the victim's allegations. He said that on December 24, he learned that the victim's urine had tested positive for heavy metals and that he obtained a search warrant for the defendant's house. He said that the police executed the warrant on January 5, 1998, and that police found the following in a shed behind the defendant's house: A glass jar labeled "Baking power" that contained a white powder; a glass jar labeled "sulfur" that contained a yellow powder; and a glass jar labeled "Epsom salt" that contained a white granular substance. He said that he also found an unlabeled brown jar that contained a white powder in the defendant's living room. He said that after the search, the defendant voluntarily drove to the police station and gave an audiotaped statement.

Detective Bailey testified that on January 10, 1998, the victim telephoned him, told him that the defendant was trying to break into the shop, and asked Detective Bailey to come to the shop and search it. He said that he told the victim to search the shop and bring anything suspicious to the police department. He said that two days later, the victim brought him a spray bottle and an envelope that contained metal shavings. He said he sent the jars he had collected from the defendant's shed, the metal shavings, the spray bottle, and an automatic coffee maker that the victim had given him to the Memphis Environmental Center (MEC) for heavy metal testing.

Detective Bailey testified that on January 14, 1998, he learned that two items had tested positive for arsenic. He said that the defendant was arrested on January 19 and that after the arrest, the defendant asked to speak with him. He said that he read the defendant his rights, that the defendant signed a waiver of rights form, and that the defendant said, "If I was going to kill this guy, I wouldn't use arsenic, I'd use something quicker and legal." He said that after making that statement, the defendant asked for an attorney and refused to talk to him.

The defendant's January 5 audiotaped statement was introduced into evidence. In the statement, the defendant said that in 1996, he saw the victim and Kimo Coelho working on cars in the victim's backyard. He said he offered to buy land for the business and split the cost of putting a building on the land with the victim. He said that in return, he demanded that he own the land, that the victim have liability insurance to protect the defendant in case of a lawsuit, and that the defendant get all of the business's tax deductions. He said that when the victim signed the real estate loan, the victim was "painfully aware" that he was a cosigner and not an owner. He said that although he and the victim were supposed to split the costs of constructing the building equally, he paid for most of it. He said that the victim's wife suggested the defendant and the victim get life insurance policies and that when they got the policies, each was the other's beneficiary. He said that he had wanted to drop the life insurance coverage, but that the victim insisted they keep it. He said that he and the victim opened a bank account, that he deposited \$4,000 into the account, and that the victim deposited \$8,000.

The defendant said that the victim knew the partnership contract made the defendant ninety-eight percent owner of the business. He said that he and the victim fired Kimo Coelho for stealing from K&P and that Tom Jackson stole \$5,000 from the business. He said that he did not know how arsenic got into the victim and that he did not put anything in the victim's food or drink. He acknowledged that he knew more about chemicals than the average person. He said that he kept some chemicals in the shed behind his house and that the victim's daughter had access to chemicals through her job as a dental hygienist. He said that \$2,000 should have been in K&P's bank account but that it had only \$13. He said the victim had collected \$2,000 from a customer but had not put the money in the account.

Phillip Rouss, Jr., the victim, testified that in the summer of 1996, he and Kimo Coelho decided to start a car restoration business. He said that they named it K&P Automotive Restoration and that he opened a business account at Boatmen's Bank. He said that he and Mr. Coelho owned the business equally and that they agreed he would put up the capital for the business while Mr. Coelho would do most of the restoration work. He said the defendant saw him and Mr. Coelho working on cars in the victim's backyard and asked to become a partner. He said that although Mr. Coelho was against it, he allowed the defendant to become a partner. He said that the defendant was supposed to contribute one-half of the business's capital and handle the financial and legal aspects of the business. He said that he, the defendant, and Mr. Coelho were going to split the profits equally, that Mr. Coelho was going to be paid \$300 per week, and that Mr. Coelho was going to work his way into owning one-third of the business.

The victim testified that the partners decided to buy a building in order to have a place to do the restoration work. He said that the defendant agreed to pay for one-half of the building, that the defendant found a piece of land in Atoka to put the building on, and that he signed a contract to buy a building. He said he later learned that two days after he signed the contract, the defendant had the building put in the defendant's name. He said that he met the defendant at lawyer Tracey Malone's office in order to sign the sales contract for the land in Atoka and that he did not read it before he signed it. He said that he learned in September 1997 that the defendant owned the land and that he was just a cosigner on the loan. He said that the building was erected on the land in early 1997 and that the restoration shop opened in March 1997. He said that the defendant asked him and Mr. Coelho to sign a contract giving the defendant ninety-eight percent ownership of the business but that they refused. He said that on April 30, 1997, the defendant asked him to sign a contract giving the defendant and the victim each fifty percent ownership of the company and that he agreed to sign the contract. He said that he signed the contract in Tracey Malone's office and that he later learned the contract gave the defendant ninety-eight percent ownership of K&P.

The victim testified that he and the defendant had talked about getting health and life insurance through the new company. He said that in May 1997, a nurse from American National Insurance examined him and Mr. Coelho. He said he did not remember talking to Carl Long about his insurance application.

The victim testified that when he and Mr. Coelho collected money from customers, they gave it to the defendant because the defendant was handling K&P's checking account. He said that Mr. Coelho left the business in June 1997 over disagreements with the defendant and that Tom Jackson began working there in July. The victim testified that he quit working at the shop in June 1997 because he was weak and his hands and feet were numb. He said his doctor took a chest x-ray and thought he had lung cancer. He said that he was later diagnosed with actinomycosis and that when the defendant found out the victim did not have lung cancer, the defendant seemed "a little upset." He said that although his lungs cleared up, he was barely able to walk because of the numbness in his feet. He said that he also had a severe burning in his stomach and suffered from memory loss and ringing in his ears. He said that he saw a lot of doctors from June 1997 to January 1998, that the doctors prescribed medications for him, and that the medicines did not help his stomach or the numbness. He said that he ate seafood only a few times in 1997.

The victim testified that although he and the defendant were supposed to have a business meeting every month, they did not have their first meeting until October 1997. He said that they had the meeting at his house and that before the meeting started, he mentioned to the defendant that the business was having its best month so far and ought to be in good financial shape. He said that the defendant "exploded like a wild man" and said, "I can see right now that all you want is your money back." He said that the defendant ran home and that he thought the defendant was kidding. He said that he went to the defendant's house and asked the defendant to return to the meeting but that the defendant refused. He said that the defendant told him the defendant was going to sell the business and said, "You and your wife are stupid and naive, and your problem is anybody could come along and take anything you've got."

The victim testified that the defendant had hired James Ferguson, a certified public accountant, to pay sales tax for the business. He said that at some point, the Tennessee Department of Revenue contacted him and told him that the sales tax was not being paid. He said that in October 1997, he went to Mr. Ferguson's office and asked to see K&P's monthly financial reports and that Mr. Ferguson promised to mail them to him. He said that he waited for the reports for a couple of weeks, went back to Mr. Ferguson's office, and asked Mr. Ferguson for the reports again. He said that Mr. Ferguson was uneasy but that he received the reports in the mail three days later. He said that the amounts on the reports were incorrect. He said that in late October 1997, he went to the bank and asked for copies of the business's bank statements. He said the statements revealed that the defendant had written checks for personal expenses and checks to American National Insurance. He said that he telephoned American National Insurance and discovered that the defendant was the owner and beneficiary of his \$100,000 life insurance policy. He said that although he had known about the policy, he thought the company or his wife was supposed to be the beneficiary.

The victim testified that he telephoned Tracy Malone and asked to see the business contract that he and the defendant signed in April 1997. He said that when he saw the contract, he learned for the first time that the defendant owned ninety-eight percent of the business. He said that three days before the October 1997 meeting, Judie Hayes told him that the defendant had closed K&P's business account at Boatmen's Bank. He said that he confronted the defendant about the closed

account and that the defendant told him the defendant was going to open an account at First Tennessee Bank. He said he and the defendant agreed that the victim would make the deposits into the account and that the defendant would write checks from it. He said that after he made three deposits into the account, he learned that the account's balance was \$23 and that the defendant had opened a second business account for K&P at First Tennessee Bank. He said that \$7,100 should have been in K&P's account. He said that he telephoned K&P's suppliers and learned they had not been paid. He said that on December 2, 1997, he talked with an attorney and filed a civil lawsuit against the defendant. He said that after filing the lawsuit, the defendant sent him a letter in which the defendant stated that the defendant had been leasing the building in Atoka to K&P, that the defendant was terminating the lease, and that K&P had to move out of the building. He said that after he filed his lawsuit, the defendant was not supposed to come near him or the restoration shop.

The victim testified that he remembered a conversation he had had with the defendant years earlier in which the defendant stated that he knew a lot about poisons. He said that he also remembered that he had gotten sick every time he had eaten with the defendant. He said that one time, the defendant brought hamburgers to the shop and that he and Mr. Coelho had nausea and diarrhea after eating them. He also recalled that at the Lone Star Steakhouse, he saw the defendant take a white substance from the palm of the defendant's hand and put it in the victim's beer. He said that when he asked the defendant about it, the defendant told him he put salt in the beer to take out its bitterness. He said that he began to suspect the defendant was poisoning him and that he told Detective Doug Bailey about his suspicions on December 15, 1997.

The victim testified that on January 10, 1998, he and his son went to K&P to look at some cars that were being restored. He said the defendant arrived and began banging on the front door. He said that he called 9-1-1 but that the defendant left before the police arrived. He said that the police left and that the defendant returned about five minutes later. He said that a man named Gary Roebuck was with the defendant and that he called 9-1-1 again. He said that when the police arrived, he heard one of them ask the defendant, "What are you doing?" He said the defendant answered, "I've got to get in that building. If I can't get in that building, nobody is getting in." He said that Gary Roebuck appeared to be surprised about the defendant's actions and that the police arrested the defendant for disorderly conduct. He said that about an hour later, the defendant drove by the shop blowing his horn and laughing.

On cross-examination, the victim acknowledged that he and the defendant had been friends for about fifteen years. He said that when he and Mr. Coelho started K&P, they agreed to split the profits equally. He said that when the defendant became a partner, the three of them agreed to be equal partners and that Mr. Coelho also would get a salary because he was doing most of the restoration work. He acknowledged that the defendant made the down payment on the land in Atoka. He said that he did not give the defendant K&P's checkbook until May 1997. He said that until that time, he wrote checks to Mr. Coelho for Mr. Coelho's salary and that he did not withhold social security or FICA from Mr. Coelho's pay. He also said that before the defendant became a partner, he did not collect sales tax for the cars he and Mr. Coelho restored.

The victim testified that when he went to Tracy Malone's office to sign the partnership contract with the defendant in April 1997, he thought the contract made him and the defendant equal partners. He said that the defendant had come to his house earlier that day and had shown him a contract which provided that each would own fifty percent of the business. He said that the contract he signed at Ms. Malone's office and the contract the defendant had shown him earlier were not the same. He said that he had put about \$30,000 into the business and acknowledged that records indicated the defendant had put about \$42,000 into it. He acknowledged testifying at a hearing for his civil lawsuit that every time he and Mr. Coelho collected money from customers, they gave it to the defendant. He said that he made a mistake when he said that and that he used some of the money he collected from customers to pay Mr. Coelho's salary and pay for car parts. The defense showed the victim signature cards for the business account at First Tennessee Bank, and the victim acknowledged that the signatures on the cards were his. He said, though, that he did not remember signing the cards. He acknowledged telling the Bartlett police that the defendant was going to take out a life insurance policy on him but said he did not know the defendant had actually done so until September 1997. The defense showed the victim a receipt for the policy, which stated that the defendant owned the policy, and the victim acknowledged that he signed the receipt. He said it would not surprise him to learn that fifty-one cash deposits totaling over \$20,000 were made to his personal bank account in 1997. He said that although he did not have any income that year, his children gave him money and he deposited his mother's money into the account because she did not have her own checking account.

The victim testified that he had stomach surgery about ten years before trial. He said that as a result of the surgery, he was not supposed to lie down right after meals. He said that he started feeling bad in June 1997 and that he saw several doctors. He said he would be surprised to learn that he gained twenty pounds between July and October 1997. He said he started researching poisons, learned they could make a person constipated, and told his doctor he was constipated. He said that when his urine was tested for heavy metals, he felt so sick that he did not think he would live long enough to learn the test's results. He said that he was no longer angry at the defendant, that he did not have any ill feelings for him, and that he did not want to see the defendant go to jail.

Dr. Kevin Merigan, a physician board certified in medical toxicology, clinical pharmacology, forensic medicine, and emergency medicine, testified that heavy metals are fairly toxic and include lead, arsenic, mercury, and aluminum. He said that most heavy metals caused neuropathy, which is a loss of sensation in parts of the body, such as the hands and feet. He said that many diseases mimicked the signs of heavy metal poisoning but that only a few diseases involved all of the same symptoms as heavy metal poisoning. He said that small amounts of metals occurred in the body naturally but that the amounts usually were too small to measure in a person's blood or urine. He said that a urine test was the best way to measure a person's exposure to heavy metals.

Dr. Merigan testified that acute poisoning occurred when a person was rapidly exposed to a large amount of poison whereas chronic poisoning occurred when a person was exposed to poison over time. He said that signs of acute arsenic poisoning were severe nausea, vomiting, and diarrhea and that symptoms of chronic arsenic poisoning included skin problems, strange sensations in the

hands and feet, and hair and weight loss. He said, though, that those symptoms were common signs for most heavy metal poisonings.

Dr. Merigan testified that he first examined the victim in January 1998. He said that the victim had difficulty walking, was shaky, and complained of nausea, diarrhea, and problems with his hands and feet. He said that the victim told him that since the middle of 1997, the victim had also experienced episodes of back pain, appetite loss, abdominal pain, lower leg weakness, hair loss, increased blood pressure, facial numbness, and pain in his hands. He said he told the victim not to cut his hair in order that the hair could be tested later for heavy metal exposure. He said the victim had two unrelated neurological problems, one with the nerves in his hands and feet and another with his spinal cord and brain. He said he went to the victim's house in order to look for something that could be causing the victim's symptoms but did not find anything. He said that he referred the victim to neurologist Lance Wright and that Dr. Wright believed the victim's neuropathy could have been caused by arsenic. He said Dr. Wright and other doctors who examined the victim thought the victim could have MS. He said that while symptoms of MS and heavy metal poisoning were similar, it was unusual for a person the victim's age to develop MS. He said he did not think the victim had MS.

Dr. Merigan testified that the jars found in the defendant's shed were sent to a laboratory for testing. He said that the brown jar that contained a grainy substance contained lead but no arsenic or mercury. He said that the jar labeled "Baking powder" contained arsenic, lead, manganese, and an "appreciable amount of mercury" and that the jar labeled "Epsom salt" contained lead and mercury. He said that the metal shavings in the envelope tested positive for antimony, arsenic, lead, and manganese and that ingesting a pinch of the metal shavings would make a person sick. He said that out of all the substances, the white powder in the jar labeled "Baking powder" was the most dangerous because it contained a high level of mercury. He said, though, that all of the substances were toxic. He said that the victim let his hair grow for three months and that he sent some of the hair to the MEC for testing. He said that the hair tested positive for mercury. He said that in his opinion, the victim was suffering from chronic heavy metal poisoning.

On cross-examination, Dr. Merigan testified that based on the victim's hair test, he believed the victim could have been exposed to mercury three to four weeks before November 14, 1997. He said that the level of mercury in the victim's hair was not high. He said that on December 12, 1997, the victim's blood was tested for heavy metals, that the blood tested negative for arsenic and mercury, and that the blood contained normal levels of lead. He said the victim told him that the victim was in good health until March 1997. He said that the victim met with Dr. Hammond Cole on October 23 and December 18, 1997, and that according to Dr. Cole's notes, the victim was not suffering from skin rashes. He said that although the victim told him that the victim started having nausea and diarrhea in September 1997, Dr. Cole's notes from October 23 stated that the victim did not have any problems with heartburn or bowel irritation.

On redirect examination, Dr. Merigan testified that after Dr. Wright examined the victim, Dr. Wright sent him a note in which Dr. Wright stated that the victim's numbness in the hands and feet

may have been caused by arsenic. He said that the numbness also was a symptom of mercury poisoning. He said that Dr. Michael C. Levin, who treats many MS patients, evaluated the victim and noted that the victim's symptoms were consistent with MS. However, Dr. Merigan said that he thought the victim was suffering from mercury poisoning.

The defense called Sheldon Brunk, a forensic toxicologist, who testified that the level of 63 ug/L of arsenic in the victim's urine was not unusual and that levels between 50 and 100 ug/L "are usually not any cause for alarm." He said the laboratory that tested the urine put a disclaimer on its report which stated that for levels between 1 and 200 ug/L, "exposure should be suspected unless there is a consumption or workplace exposure." He said that the laboratory's disclaimer also stated that arsenic levels over 200 ug/L showed significant exposure. He said that arsenic exists in many chemical forms and that the toxicities of the forms vary. He said that the MEC's analysis of the powders found in the defendant's shed did not reveal what forms of arsenic were present. The jury convicted the defendant of attempted first degree premeditated murder, theft of property valued \$10,000 or more but less than \$60,000, and violating the sales tax law.

I. SUFFICIENCY OF THE EVIDENCE

The defendant claims that the evidence is insufficient to support his convictions. The state argues that the evidence is sufficient. We agree with the state.

Our standard of review when the defendant questions the sufficiency of the evidence on appeal is "whether, after viewing the evidence in the light most favorable to the prosecution, any rational trier of fact could have found the essential elements of the crime beyond a reasonable doubt." Jackson v. Virginia, 443 U.S. 307, 319, 99 S. Ct. 2781, 2789 (1979). We do not reweigh the evidence but presume that the jury has resolved all conflicts in the testimony and drawn all reasonable inferences from the evidence in favor of the state. See State v. Sheffield, 676 S.W.2d 542, 547 (Tenn. 1984); State v. Cabbage, 571 S.W.2d 832, 835 (Tenn. 1978). Questions about witness credibility were resolved by the jury. See State v. Bland, 958 S.W.2d 651, 659 (Tenn. 1997).

A. Attempted Murder

The defendant claims the evidence is insufficient to support his attempted murder conviction because the victim had a history of stomach problems, which the state failed to prove were related to the defendant. In addition, he claims the evidence is insufficient because the doctors who treated the victim had conflicting diagnoses and because some of them believed the victim had MS.

Circumstantial evidence alone may be sufficient to support a conviction. State v. Richmond, 7 S.W.3d 90, 91 (Tenn. Crim. App. 1999); State v. Buttrey, 756 S.W.2d 718, 721 (Tenn. Crim. App. 1988).

The law is firmly established in this State that to warrant a criminal conviction upon circumstantial evidence alone, the evidence must be

not only consistent with the guilt of the accused but it must also be inconsistent with his innocence and must exclude every other reasonable theory or hypothesis except that of guilt, and it must establish such a certainty of guilt of the accused as to convince the mind beyond a reasonable doubt that he is the one who committed the crime.

Pruitt v. State, 3 Tenn. Crim. App. 256, 267, 460 S.W.2d 385, 390 (1970). While following these guidelines, we must note that the jury decides the weight to be given to circumstantial evidence and that the “inferences to be drawn from such evidence, and the extent to which the circumstances are consistent with guilt and inconsistent with innocence, are questions primarily for the jury.” Marable v. State, 203 Tenn. 440, 452, 313 S.W.2d 451, 457 (1958) (quoting 2 Wharton’s Criminal Evidence 1611).

Criminal attempt requires that one act “with the kind of culpability otherwise required for the offense . . . [and] with intent to cause a result that is an element of the offense, and believes the conduct will cause the result without further conduct on the person’s part.” Tenn. Code Ann. § 39-12-101(a)(2). First degree murder is the “premeditated and intentional killing of another[.]” Tenn. Code Ann. § 39-13-202(a)(1). Premeditation is defined as:

_____ an act done after the exercise of reflection and judgment. “Premeditation” means that the intent to kill must have been formed prior to the act itself. It is not necessary that the purpose to kill pre-exist in the mind of the accused for any definite period of time. The mental state of the accused at the time the accused allegedly decided to kill must be carefully considered in order to determine whether the accused was sufficiently free from excitement and passion as to be capable of premeditation.

Tenn. Code Ann. § 39-13-202(d). The element of premeditation is a question for the jury and may be established by proof of the circumstances surrounding the killing. Bland, 958 S.W.2d at 660. Our supreme court has delineated the following factors that demonstrate the existence of premeditation: the use of a deadly weapon upon an unarmed victim, the particular cruelty of the killing, declarations by the defendant of an intent to kill, evidence of procurement of a weapon, preparations before the killing for concealment of the crime, and calmness immediately after the killing. Id. In addition, the “establishment of a motive for the killing is another factor from which the jury may infer premeditation.” State v. Sims, 45 S.W.3d 1, 8 (Tenn. 2001).

Viewed in the light most favorable to the state, we believe the evidence is sufficient to support the conviction. The victim and the defendant had gone into business together, and the defendant had taken almost all of the victim’s interest in the business and property. The defendant had put approximately \$42,000 into K&P and amassed an \$89,000 credit card debt. He took out a \$100,000 life insurance policy on the victim and, despite telling the victim that the company or the

victim's wife would be the beneficiary of the policy, made himself the beneficiary. Moreover, although the defendant told Carl Long that the business was bankrupt, he wanted to keep the victim's life insurance policy. On January 10, 1998, the defendant went to the restoration shop, demanded that the victim let him inside, and told police that he had to get into the building. During a search of the shop, the victim's son found metal shavings in an envelope that had the defendant's handwriting on it and that had been hidden behind a fuse box. The defendant acknowledged to police that he knew more about poisons than an average person and repeatedly told the victim's family and coworkers that he did not expect the victim to live very long. Although the defendant stated to police that he never put anything in the victim's food or drink, the victim testified that he often got sick when he ate with the defendant and that he once saw the defendant put something that looked like salt into his beer.

Heavy metal testing revealed mercury in the victim's hair and above normal levels of arsenic in his urine. Although the mercury level in the victim's hair was not high, Dr. Kevin Merigan believed that the victim had been poisoned with mercury, and laboratory testing of a substance found in the defendant's garage and labeled "Baking powder" contained high levels of mercury. Although no direct evidence that the defendant tried to poison the victim exists, a rational jury could have found beyond a reasonable doubt that the defendant was in dire financial straits and intentionally, and with premeditation, tried to kill the victim by putting heavy metals into the victim's food and/or drink in order to collect \$100,000 from the victim's life insurance policy and to have any business assets for himself. The jury heard the inconsistencies and alternate theories raised by the defendant and decided to accredit the state's theory of the offense. The evidence is sufficient to support the defendant's conviction for attempted first degree murder.

B. Theft

_____The defendant has presented no argument as to why the evidence is insufficient to support his theft conviction, and the state claims this has resulted in his waiving the issue. See T.R.A.P. 27; Tenn. R. Crim. P. 10(b). In any event, we conclude that the evidence is sufficient.

As charged in the indictment, the defendant was convicted of stealing from the victim. A person is guilty of theft if that person, with the intent to deprive the owner of property, knowingly obtains or exercises control over the property without the owner's effective consent. Tenn. Code Ann. § 39-14-103.

Viewed in the light most favorable to the state, the evidence shows that the defendant was guilty of theft of property valued \$10,000 or more but less than \$60,000. The defendant was responsible for managing the business's finances and keeping its accounting books. The victim contributed about \$30,000 in capital to the business and gave the defendant the business's bank account statements and checkbook. In addition, the victim and Kimo Coelho testified that they gave money collected from customers to the defendant. Tom Jackson, who managed K&P from July through October 1997, testified that he collected money from customers, that he almost always gave the money to the defendant, and that the business should have been profitable. William Watkins,

a certified public accountant hired by the state to inspect K&P's records, found that \$9,000 was unaccounted for and that the business never had a profit. In April 1997, the defendant asked the victim to sign a contract making them equal owners of the business and showed the victim the proposed contract. The victim went with the defendant to Tracy Malone's office, signed the contract, and later learned that the contract gave the defendant ninety-eight percent ownership of K&P despite the fact that the victim had put \$30,000 into the company. The victim also believed that he was going to own fifty percent of the land in Atoka. Instead, he found out in September 1997, that he had signed a contract making him financially responsible for land that was entirely owned by the defendant. In October 1997, the victim, his wife, and Tom Jackson tried to get the defendant to meet with them in order to go over the business's financial records. However, before the meeting could start, the defendant stormed out and refused to participate. The evidence shows that the defendant had almost complete control of K&P's finances, that he misused capital contributions, and that he tricked the victim into signing contracts that gave him almost complete control of K&P and made the victim financially responsible for the Atoka land. We conclude that the evidence is sufficient to support the theft conviction.

C. Sales Tax Violation

Again, the defendant has failed to provide any argument in support of his claim that the evidence is insufficient to support his conviction for violating the sales tax law. Nevertheless, we conclude that the evidence is sufficient.

The indictments alleged that the defendant "obstructed" and "deprived" the State of Tennessee in the collection of its sales tax revenue by filing false sales tax returns between March 31 and September 1, 1997. Tenn. Code Ann. § 67-1-1440(d) provides,

It is a Class E felony for any person to delay, hamper, hinder, impede, obstruct or thwart the state of Tennessee in the collection of any of its lawful revenue, or to deprive the state of the realization of such revenue at the time it is lawfully entitled thereto by any artifice, design, false weight or measure, stratagem, or by the falsification of any record, report or return required by law. Each act done in violation hereof is a separate offense.

In this case, the evidence reflects that the defendant hired CPA James Ferguson to help him prepare the sales tax returns. Mr. Ferguson testified that he determined K&P's income and prepared the returns based upon check stubs, cancelled checks, and bank statements that the defendant gave him. Shane Christian testified that he investigated K&P's work invoices and sales tax returns from April to August 1997 and that he concluded K&P had underpaid the state \$680.49 during that five-month time period. Moreover, CPA William Watkins testified that his review of K&P's records indicated that the business had \$40,000 in sales in 1997 but that Mr. Ferguson's records showed only \$25,000 in sales. The defendant was an owner of the business, was responsible for the business's finances, and signed all of the checks that were mailed to the Tennessee Department of Revenue. In addition,

the record reveals that the defendant signed each of the business's sales tax returns. Given the evidence, we believe a jury could have reasonably concluded that the defendant under-reported K&P's income to Mr. Ferguson during the period alleged in the indictment, which resulted in false sales tax returns being filed with the state and obstructed and deprived the state of collecting sales tax revenue. The evidence is sufficient to support the conviction.

II. BILL OF PARTICULARS

The defendant claims that the trial court erred by denying his motion for a bill of particulars. The state claims that the trial court properly denied the motion. We agree with the state.

The defendant was indicted for first degree murder on August 25, 1998. The indictment alleges as follows:

STEVE A. WHITE

during the period of time between April 1, 1997 and December 19, 1997, in Shelby County, Tennessee, and before the finding of this indictment, did unlawfully attempt to commit the offense of First Degree Murder, as defined in Tennessee Code Annotated 39-13-202, in that he, the said STEVE A. WHITE, did unlawfully, intentionally, and with premeditation attempt to kill PHILLIP E. ROUSS, in violation of T.C.A. 39-12-101, against the peace and dignity of the State of Tennessee.

On October 29, 1998, the defendant filed a motion for a bill of particulars, requesting that the state file a written answer to the motion and reveal the exact times and dates of the alleged offense, the location of each alleged incident, the names of people present at the time of the incidents, the acts that the defendant committed, the manner in which the defendant committed the crime, and the nature of the victim's injuries. On July 6, 1999, the day of the motion hearing, the state filed an eight-page response, which detailed many aspects of the state's case, such as the motive for the crime and the fact that the victim had tested positive for mercury and arsenic. In addition, the response stated that heavy metals had been found in substances in the defendant's home and specifically described at least seven opportunities the defendant had to poison the victim.

In denying the defendant's motion, the trial court stated,

This response is replete with dates and locations and specifics. And, you know, I, I just have to disagree with you-all. I think that, I think that from what I've seen, [the State] has provided you-all with a tremendous amount of very specific material here. Now, if your complaint is that this just got to you today and you don't have enough time to be ready for trial in September, that's a different issue. And,

we'll talk about that, if you need a continuance, let Me know. . . . And, obviously, you're entitled to what the rules of discovery allow and to the medical testing, and the scientific data, to dates and places to the extent that [the State] knows them. . . . My sense of what I've heard today, is that you're asking for broader discovery by means of Bill of Particulars, number one, And, an opportunity to require the State to indicate, to etch in stone pre-trial exactly what their proof will be. . . . I'm going to require [the State] to provide you with anything and everything [it] has with regard to dates, places, people, circumstances. I understand that you-all need to know as much as you can in order to respond. I understand that this indictment alleges several months as opposed to one day, so it's a little harder to get a handle on those issues, factual issues, for purposes of preparation for your defense. But, I think that what I've seen that has been provided by the State has addressed those specifics fairly well.

On August 12, 1999, the defendant was indicted for theft and violating the sales tax law. He did not file a motion for a bill of particulars with regard to those indictments.

The defendant now claims that the trial court erred by denying his motion for a bill of particulars. He argues that he needed a bill of particulars in order to determine what types of chemicals were used to poison the victim, the dates and times of the alleged poisonings, and any witnesses involved. He also claims that the trial court should have granted his motion because he needed to know the amount of money missing and the type and amount of tax that was not paid in order to prepare his defenses for theft and violating the sales tax law. He contends that although the state's eight-page response contained "much needed information for the defense," it did not satisfy the need for a bill of particulars. Regarding the attempted murder indictment, the state claims that its response to the defendant's motion provided the defendant with the information he had requested and that the defendant has failed to show he was prejudiced by the trial court's denial of the motion. Regarding the theft and sales tax violation indictments, the state claims that the defendant has waived the issue because he did not file a motion for a bill of particulars as to those indictments. We agree with the state.

Rule 7(c), Tenn. R. Crim. P., provides that "[u]pon motion of the defendant the court may direct the filing of a bill of particulars so as to adequately identify the offense charged." The committee comments note that this rule allows a bill of particulars if the defendant needs to know the precise charges against him or her. Committee Comments, Tenn. R. Crim. P. 7(c). The comments caution that the rule "is to be construed to serve that singular purpose, and is not meant to be used for purposes of broad discovery." *Id.* The function of a bill of particulars is to give the defendant sufficient information about the charges in order that he or she may prepare a defense and to prevent prejudicial surprise at trial. State v. Hicks, 666 S.W.2d 54, 56 (Tenn. 1984); see also State v. Hammonds, 30 S.W.3d 294, 303 (Tenn. 2000). Our supreme court has recognized that a bill of

particulars is not necessary when the state has provided the defendant with the information in another acceptable form. See Hicks, 666 S.W.2d at 56.

Regarding the attempted murder indictment, we believe the state's response to the defendant's motion contained the information the defendant had requested and negated the need for any further bill of particulars. The response detailed the defendant's motive for the crime and provided him with the dates, locations, names of witnesses, and specific circumstances surrounding at least seven opportunities the defendant had to poison the victim. The response also stated that the defendant had poisoned the victim with heavy metals and that heavy metals were found in the restoration shop and the defendant's home. Moreover, at the motion hearing, the defense told the trial court that the state had provided the defense with a list of substances found at the shop and the defendant's residence and the results of tests that had been performed on the substances. Given the nature of the information sought, the written response of the state, the oral statements of the defense and the state at the motion hearing, and the fact that no showing has been made that the defendant was not "fully apprised of and given access to all discoverable information" or that the defendant was "prejudiced in the preparation of his defense," State v. Stephenson, 878 S.W.2d 530, 539 (Tenn. 1994), we conclude that the trial court did not err by denying the defendant's motion for a bill of particulars as to the attempted murder indictment.

Regarding the remaining indictments, we note that one month after the trial court denied the defendant's motion for a bill of particulars as to the attempted murder indictment, the defendant was indicted for theft and two counts of violating the sales tax law. However, he did not file a second motion for a bill of particulars. Therefore, he has waived the issue as to those indictments. See T.R.A.P. 36(a). Moreover, we discern no plain error. See Tenn. R. Crim. P. 52(b); State v. Adkisson, 899 S.W.2d 626, 641-42 (Tenn. Crim. App. 1994).

III. FAILURE TO EXCLUDE EVIDENCE

The defendant claims that the trial court erred by refusing to exclude from evidence the metal shavings and the spray bottle that the victim and his son found in the restoration shop on January 10, 1998. He claims that the metal shavings were irrelevant and in the alternative that the evidence's probative value was substantially outweighed by the danger of unfair prejudice. See Tenn. R. Evid. 401, 403. As to the spray bottle, he contends that the state violated his request for discovery by failing to reveal the bottle to the defense until the morning of trial. See Tenn. R. Crim. P. 16(a)(1)(A). The state claims that the trial court properly admitted the evidence. We agree with the state.

A. Metal Shavings

In a jury out hearing the morning of trial, the defense sought to exclude from evidence the metal shavings found in the restoration shop on the basis that the shavings were irrelevant. The state argued that in light of its theory that the defendant had poisoned the victim with heavy metals, the shavings were relevant because they had tested positive for heavy metals and were found hidden in

an envelope that had the defendant's handwriting on it. The trial court held that the metal shavings were "clearly relevant without question" and denied the defendant's motion.

According to Rule 401, Tenn. R. Evid., evidence is relevant if it has "any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." Relevant evidence may still be excluded "if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury" Tenn. R. Evid. 403. The trial court has discretion in determining whether evidence meets the test for relevancy. State v. Forbes, 918 S.W.2d 431, 449 (Tenn. Crim. App. 1995). Assessing the probative value and danger of unfair prejudice regarding the evidence also falls within the trial court's discretion. State v. Burlison, 868 S.W.2d 713, 720-21 (Tenn. Crim. App. 1993). This court will only reverse a trial court's decision if the trial court abused its discretion. State v. Williamson, 919 S.W.2d 69, 78 (Tenn. Crim. App. 1995).

The state's theory of the case was that the defendant poisoned the victim with heavy metals. Although the state had no conclusive proof as to how the defendant poisoned the victim, witnesses at trial testified that the victim often got sick when he ate with the defendant, and the victim testified that he saw the defendant put something in his beer. Thus, a logical assumption was that the defendant was putting substances containing heavy metals into the victim's food and/or drink. Given the state's theory of the case and the fact that the shavings were found hidden in the shop and in an envelope with the defendant's handwriting on it, we agree with the trial court that the evidence was relevant. Moreover, we do not believe the probative value of the evidence was substantially outweighed by the danger of unfair prejudice. The trial court properly admitted the envelope of metal shavings into evidence.

B. Spray Bottle of Acid

Before trial, the defense filed a discovery motion requesting that it be allowed to inspect and copy documents and tangible objects pursuant to Rule 16(a)(1)(C), Tenn. R. Crim. P. The state's response to the motion provided that the defense could inspect any tangible objects presently in the state's possession or that it obtained in the future. During the defendant's motion hearing to exclude the metal shavings evidence, the state mentioned that it was going to introduce into evidence a spray bottle of acid that the victim and his son found in the shop on January 10, 1998. In addition, the state told the trial court that it planned to introduce into evidence results of tests that had been performed with the acid and the metal shavings. The defense claimed that although it was aware the state had conducted experiments by mixing the metal shavings with acid, it had not known that a specific bottle of acid existed and asked the trial court to exclude it from the evidence pursuant to Tenn. R. Crim. P. 16(d)(2). The state argued that it did not know why the defense had been unaware of the bottle's existence because Detective Doug Bailey's police report, which had been made available to the defense, mentioned it. The trial court refused to exclude the bottle, noting that nothing indicated the state had intentionally concealed it from the defense. In addition, the trial court held that the defense could inspect the spray bottle and any laboratory reports during an upcoming lunch hour.

The defendant claims that the trial court erred by refusing to exclude the spray bottle from evidence. Specifically, he claims that the trial court's failing to exclude the bottle was reversible error because the defense did not have access to "this vital piece of evidence" and was unable to have its toxicology expert inspect and test it. The state claims that the trial court properly refused to exclude the evidence because the state had not intentionally concealed the bottle from the defense. Moreover, the state claims that the defendant has failed to show that he was prejudiced by the trial court's denial of his motion because the state gave him the results of tests on the bottle and the acid before trial.

Under Tenn. R. Crim. P. 16(a)(1)(C), the state is required to "permit the defendant to inspect and copy or photograph . . . tangible objects . . . which are within the possession, custody or control of the State," and material to the defendant's preparation of his defense, intended for use by the state, or were obtained from the defendant. If a party fails to comply with a discovery request, "the court may order such party to permit the discovery or inspection, grant a continuance, or prohibit the party from introducing evidence not disclosed, or it may enter such other order as it deems just under the circumstances." Tenn. R. Crim. P. 16(d)(2). Whether a defendant has been prejudiced by the state's failure to disclose information is a significant factor in determining an appropriate remedy. State v. Smith, 926 S.W.2d 267, 270 (Tenn. Crim. App. 1995). Exclusion of evidence is a "drastic remedy and should not be implemented unless there is no other reasonable alternative." Id. When arguing that the state violated Rule 16, the defendant bears the burden of showing "the degree to which the impediments to discovery hindered trial preparation and defense at trial." State v. Brown, 836 S.W.2d 530, 548 (Tenn. 1992).

Initially, we note that in a police report, Detective Bailey stated that he had received "an 8 oz. spray bottle of some sort of liquid acid from Phil Rouss." During the hearing to exclude the bottle from evidence, the state told the trial court that Detective Bailey's report had been made available to the defense and the defense did not dispute that claim. Thus, the spray bottle's existence should not have been a complete surprise to the defense. In any event, even if the state's failure to turn over the bottle violated the defendant's discovery request, the defendant has failed to show how he was prejudiced by the state's failure to comply with discovery. The trial court allowed the defense to inspect the bottle and the state's laboratory test reports. The defendant does not claim that the test results were inaccurate and has made no argument as to how independent testing would have aided his defense. We also note that the state presented very little evidence about the bottle at trial, and no witness testified as to what role acid played in the defendant's poisoning the victim. The defendant has failed to show that the trial court committed reversible error by denying his motion to exclude the bottle from evidence.

IV. ANGELA WHITESIDE'S TESTIMONY

The defendant claims that the trial court erred by not instructing the jury after the state asked witness Angela Whiteside an inappropriate question. He claims that an instruction was required because the purpose of the question was to bias the jury against him. The state claims that the defendant has waived the issue because he failed to request an instruction. In the alternative, it

argues that he has failed to show how he was prejudiced by the lack of an instruction. We conclude that the defendant is not entitled to relief.

Angela Whiteside testified that she was a waitress at the Lone Star Steakhouse and usually waited on the defendant. During her direct testimony, the state asked if the defendant had ever asked her on a date. The defense objected and during a bench conference, the following colloquy occurred:

[Defense]: Your Honor, I object to this line of questioning. It's not relevant to any-

[State]: Your Honor, surely it must have been anticipated. This is part of the motive for his taking the money. As I see, it's at least \$30-

THE COURT: Whisper, would you please.

[State]: At least \$30 a week he's spending on tips for this one girl. We're talking about where the cash is going. He's got ten credit cards. He's running up bills. He's working at a temporary service. All of this goes to motive.

....

THE COURT: What do you expect the answer to be from this witness?

[State]: That he tried to get her to go out on one occasion.

THE COURT: But she didn't,

[Defense]: And she didn't, and that's why I'm amazed he asked the question.

(Simultaneous speech.)

THE COURT: Wait a minute. Let me talk. If there is proof that he did go out with Person X or Person Y and, you know, maintained a separate apartment and lavished expensive gifts on her, that - I see the relevance of that, just as there was relevance of his spending habits while he

was there - \$60 tip - that sort of thing. But if the proof you anticipate is that she didn't go out with him, then there is no relevance to the fact that he did ask her out. I'll sustain the objection.

The defendant claims that although the trial court sustained his objection, a curative instruction was required because it can be "safely assumed that [the state] was talking at such a level as to be able to be heard by the members of the jury." He contends that the trial court should have instructed the jury to disregard the state's question and anything it may have heard during the bench conference.

As pointed out in the state's brief, the defendant did not request a curative instruction. See State v. McPherson, 882 S.W.2d 365, 371 (Tenn. Crim. App. 1994) (right to a curative instruction is waived when counsel fails to request it); see also T.R.A.P. 36(a). Moreover, the defense did not poll the jury in order to determine whether the jurors heard any part of the bench conference. The defendant has failed to show that he is entitled to relief on this issue.

V. BANK APPLICATION

The defendant claims that the trial court erred by refusing to allow him to question the victim about a First Tennessee Bank account application that the victim had allegedly signed. He claims that the application was admissible in order to impeach the victim's testimony on direct examination that the victim did not know the defendant had opened a business account at First Tennessee Bank. The state claims the defense did not need to impeach the victim with the application because the defendant had already impeached the victim with signature cards for the account. We agree with the defendant that he should have been allowed to impeach the victim with the application. Nevertheless, we conclude that any error was harmless.

On direct examination, the victim testified that in October 1997, Judie Hayes told him that the defendant had closed K&P's business account at Boatmen's Bank. He said that he confronted the defendant about the closed account and that the defendant told him the defendant was going to move the account to First Tennessee Bank. The state showed the victim signature cards for a First Tennessee business account, and the victim testified that although his signature appeared to be on the cards, he did not remember signing them. On cross-examination, the following exchange occurred:

Q Okay. But you all hadn't had discussions, then, about changing banks?

A Oh, he wanted to change banks, but I wanted to leave it at Boatmen's. I'd been doing business with those people since 1970, I think.

Q So you didn't agree with him to open an account?

A No.

Q At First Tennessee?

A No.

....

Q Okay. And you identified some signature cards earlier for First Tennessee accounts, didn't you?

A Yes, I did.

....

Q [You] told the district attorney [they] were not your signatures.

A Well, I didn't think they were my signatures - no, one of them, I didn't think. I don't know. I just didn't think they were my signatures.

Q Okay. And you actually told the chancery court that it wasn't your signature either.

A I didn't think they were.

Q In fact, you didn't believe it was your signature until we had this expert here for this trial?

A That's right.

Q Your position was, entirely, that it wasn't your signature - there's no thinking about it.

A Can I tell you what my position was?

Q I'm asking you - that was your position, wasn't it?

A Yes. Am I able to explain that?

THE COURT: Yes, you may.

A Well, Your Honor, what I wanted to explain . . . was - and the question I'm thinking of - I'm asking myself, "How could I have signed this if I didn't know this account existed two months earlier?" I signed something here that I didn't know about.

At that point, the state asked for a bench conference. During the conference, the defense told the trial court that it wanted to ask the victim about a First Tennessee Bank account application that appeared to have been signed by the victim four times. The state objected, and the trial court sustained the objection on the basis that the application was undated and, therefore, irrelevant.

As previously stated, under Rule 401, Tenn. R. Evid., evidence is relevant if it has "any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." Relevant evidence may still be excluded "if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury" Tenn. R. Evid. 403. The trial court has discretion in determining whether evidence meets the test for relevancy. State v. Forbes, 918 S.W.2d 431, 449 (Tenn. Crim. App. 1995). Assessing the probative value and danger of unfair prejudice regarding the evidence also falls within the trial court's discretion. State v. Burlison, 868 S.W.2d 713, 720-21 (Tenn. Crim. App. 1993). This court will only reverse a trial court's decision if the trial court abused its discretion. State v. Williamson, 919 S.W.2d 69, 78 (Tenn. Crim. App. 1995).

We believe the trial court should have admitted the application into evidence. The victim had claimed on direct examination that the defendant opened an account at First Tennessee Bank without his approval. Thus, the application was relevant to contradict the victim's assertion, and the trial court should have allowed the defense to question the victim about it. The fact that the application was undated was for the jury's consideration.

The state claims that the defendant did not need to impeach the victim with the application because the defense had already impeached him with the signature cards. Again, we disagree. Although the victim reluctantly admitted that the signatures on the cards were his, he maintained that he did not approve of the defendant's opening the account at First Tennessee Bank. Therefore, the defense should have been allowed to impeach the victim by asking him about the application and whether the four signatures on the application were his. See Tenn. R. Evid. 607 (the "credibility of a witness may be attacked by any party"); Neil P. Cohen et al., Tennessee Law of Evidence § 6.07[4][b] (4th ed. 2000) (allowing a party to challenge the accuracy of a witness's factual assertions lets the jury "assess the witness's demeanor, sincerity, and ability to perceive, record, recall, and narrate past events"). Nonetheless, considering the whole record, we cannot say that the error more probably than not affected the judgments in this case. See T.R.A.P. 36(b).

VI. VICTIM'S TESTIMONY

The defendant claims that the trial court erred by not instructing the victim to stop giving long, rambling narratives and to stop making jokes during his cross-examination. In addition, he contends that the trial court erred by forcing the defense to cross-examine the victim between 8:00 p.m. and 10:00 p.m. when the jury had been hearing testimony since 9:00 a.m. Regarding the victim's long, rambling narratives, the state claims that the defendant waived the issue because he failed to cite to authorities and make appropriate references to the record as required by T.R.A.P. 27(a) and because he failed to object to the victim's testimony. As to the issue regarding cross-examining the victim from 8:00 p.m. until 10:00 p.m., the state claims that the defendant again waived the issue because he failed to make a contemporaneous objection. Moreover, the state claims that the defendant has failed to show that he was prejudiced by cross-examining the victim at night. We believe that the defendant is not entitled to relief.

Regarding the trial court's failure to instruct the victim to answer the defense's questions and stop making jokes, we agree with the state that the defendant has waived the issue. At no time did the defense object to the manner of the victim's testimony or request that the trial court instruct the victim to answer the defense's questions and stop making jokes. See T.R.A.P. 36(a). Moreover, the defendant has not referred to any specific examples in the record to support his claim, and we are unable to discern from our reading of the trial transcript any incident in which the victim refused to answer the defense's questions, made jokes, or disrupted the trial.

As to the defendant's remaining issue, the record reflects that on the third day of the trial, court began about 9:00 a.m. Sometime after lunch, the victim took the stand and testified until about 6:00 or 6:30 p.m. At that point, the trial court took a break in order for the jury to rest and eat dinner. The victim's direct testimony resumed about 8:00 p.m. and shortly thereafter, the defense began cross-examining him. At some point during the victim's cross-examination testimony, the following colloquy occurred:

[Defense]: My question, Your Honor, is - and I just wanted to say for the record that some of the jurors are - like they're very, very, tired.

THE COURT: Well, we all are, but we're going to finish this witness.

[Defense]: Okay, Your Honor.

THE COURT: We've been here all week, but we're not going to stop and then bring him back for another thirty minutes - or another two hours - what it-

(Simultaneous speech.)

THE COURT: Yes. We're going to finish this witness.

....

THE COURT: Do you all need a break right now?

[Bailiff]: Your Honor, I believe [one of the jurors] lost a screw out of her eyeglasses, and we were just looking for it.

THE COURT: Okay. Go ahead, [defense counsel].

At the motion for new trial hearing, the trial court stated that it had extended the trial into the evening hours because it had wanted to finish the victim's testimony, it was snowing outside, and the jury was sequestered. The trial court also stated, "And I felt that the jury was - they had dinner - they were fine, and they were paying close attention to what was being testified to, I thought."

The defendant claims that the jury was adversely affected by having to listen to testimony from 8:00 p.m. until 10:00 p.m. In support of his claim, he notes that the fact that jurors were looking for the screw to a pair of eyeglasses shows that they were not paying attention to the victim's testimony. The state argues that the defendant's failure to make a contemporaneous objection waived the issue and that the defendant has failed to demonstrate that he was prejudiced by the victim's testifying after 8:00 p.m. We do not believe that the defendant's comments would ordinarily place the trial court on notice that he was objecting. On the other hand, the trial court's statements indicate that any formal objection would have been to no avail.

As pointed out in the defendant's brief, night sessions are not per se improper. Hembree v. State, 546 S.W.2d 235, 243 (Tenn. Crim. App. 1976). However, given that due process entitles a defendant to a "clear-headed and not unduly fatigued jury," a trial court's holding late night sessions absent unusual circumstances may constitute reversible error. See, e.g., State v. McMullin, 801 S.W.2d 826, 827-32 (Tenn. Crim. App. 1990) (trial court erred by ordering night sessions over the defense's objections that lasted until 11:45 p.m. the first day of trial and 11:50 p.m. the second day of trial); Hembree, 546 S.W.2d at 242-43 (trial court erred when jury heard testimony from 9:00 a.m. until 1:00 a.m. the next day and the defendant's attorneys told the trial court at midnight that they were tired and could no longer effectively represent him). Moreover, "court should not be held at late hours if either defense counsel or any juror objects upon reasonable grounds related to the lateness of the hour." State v. Gray, 960 S.W.2d 598, 609 (Tenn. Crim. App. 1997) (citing McMullin, 801 S.W.2d at 832).

In the present case, we cannot conclude that the trial court's ordering the victim's testimony to continue after dinner constitutes error. The trial court recessed for dinner at approximately 6:30 p.m., and the victim's direct testimony resumed about 8:00 p.m., giving the jury a one and one-half hour break. When the trial resumed, neither party indicated that it was too tired to continue. In

addition, the trial court asked the jury if it needed a break, and nothing in the transcript indicates that any of the jurors said they did. Finally, we do not believe the fact that jurors were looking for a screw to a pair of eyeglasses briefly during the victim's cross-examination demonstrates prejudice. The trial court stated at the motion for new trial hearing that it believed the jurors were paying close attention to the victim, and nothing in the record contradicts that conclusion. The defendant cannot prevail on this claim.

VII. RESTRICTION OF EXPERT TESTIMONY

Next, the defendant contends that the trial court erred by limiting Dr. Sheldon Brunk's testimony. Specifically, he contends that the court should have allowed Dr. Brunk to testify about the heavy metals found in the victim's urine and in the substances taken from the defendant's home. The state argues that the trial court properly limited Dr. Brunk's testimony because he was not a medical doctor. We agree with the state.

Dr. Brunk testified that he was a forensic toxicologist and had a Ph.D. in analytical chemistry. He said that he had worked at Providence Hospital in Portland, Oregon for six years, had worked at Baptist Regional Labs in Memphis for eight and one-half years, and was a part-time consulting director at Methodist Hospital in Memphis. He said that while he worked at Baptist, he had been in charge of the drug testing and trace metals testing departments and that he currently owned his own toxicology consulting business. He said that he was licensed as a medical laboratory director in Tennessee and New York but that he was not a medical doctor. Based upon Dr. Brunk's qualifications, the trial court ruled that he was an expert in toxicology.

Dr. Brunk testified that he had performed hundreds of urine tests to detect heavy metals. He said that the level of arsenic in the victim's urine was not unusual and "usually not any cause for alarm." At that point, the state objected and told the trial court during a bench conference that it did not believe Dr. Brunk was qualified to testify about whether the levels of heavy metals in a person's body were dangerous because Dr. Brunk was not a medical doctor. The trial court ruled that Dr. Brunk could testify as to the results of the state's scientific tests but that he could not testify about whether certain levels of heavy metals would be toxic to a person.

The defendant contends that Dr. Brunk should have been allowed to testify about the toxicity of the heavy metals found in the victim's urine and in the powders taken from the defendant's home. He asserts that Dr. Brunk was qualified to testify as to whether the amount of heavy metals detected in the urine and powders would be toxic to a person of the victim's weight. The state argues that the trial court properly limited the witness's testimony because he was not a medical doctor and, therefore, not qualified to testify about the medical implications of the state's test results.

The admissibility of expert testimony is a matter within the trial court's discretion and will not be reversed on appeal absent an abuse of discretion. State v. Tizard, 897 S.W.2d 732, 748 (Tenn. Crim. App. 1994). Rule 702, Tenn. R. Evid., states, "If scientific, technical, or other specialized knowledge will substantially assist the trier of fact to understand the evidence or to determine a fact

in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise.” Rule 703, Tenn. R. Evid., states, “The court shall disallow testimony in the form of an opinion or inference if the underlying facts or data indicate lack of trustworthiness.” Determinations concerning the admissibility of expert testimony, including the basis of the expert opinion, are within the discretion of the trial court. State v. Ballard, 855 S.W.2d 557, 562 (Tenn. 1993); see also State v. Hall, 958 S.W.2d 679, 689 (Tenn. 1997). However, the jury determines the weight and credibility of the expert’s testimony. State v. Anderson, 880 S.W.2d 720, 732 (Tenn. Crim. App. 1994).

We agree with the state that the defense had not shown that the witness was qualified to testify about the medical implications of certain levels of heavy metals. Although Dr. Brunk has a Ph.D. in analytical chemistry, has been the director of various testing laboratories, and has tested urine for heavy metals numerous times, the defense did not establish that he was qualified to testify about whether certain levels of heavy metals are toxic to individuals. Thus, the trial court did not err in restricting his testimony. In any event, once the trial court granted the state’s objection, the defendant was obligated to make an offer of proof concerning Dr. Brunk’s proposed testimony. Rule 103(a)(2), Tenn. R. Evid., provides that in order to reverse a trial court’s ruling to exclude evidence, a substantial right of a party must be affected and, if not apparent from the context, “the substance of the evidence and the specific evidentiary basis supporting admission” must be made in an offer of proof. The defendant did not make an offer of proof as to Dr. Brunk’s testimony, and we cannot speculate as to his proposed testimony or its purpose. Therefore, even assuming *arguendo* that the trial court erred by limiting his testimony, we cannot say that the defendant was harmed by the error.

VIII. STATE’S CLOSING ARGUMENT

Finally, the defendant contends that the trial court erred by allowing the prosecutor to make inappropriate comments and appeal to the jury’s emotions during closing argument. In response, the state notes that the defendant did not object to any of the prosecutor’s statements and argues that the statements were not improper. We believe that the defendant is not entitled to relief.

During its closing argument, the state said the following:

“And what [the defendant is] doing is digging us a hole, which I’m going to end up picking up 50 percent.” I thought it was 98 percent. I guess he’s selective. When he’s in trouble, it’s only 50 percent; but when he’s not in trouble, it’s 98 percent. Utterly ridiculous.

....

[He’s] accused everyone else of stealing.

Take a look at that, ladies and gentlemen, it’s almost a complete joke.

....

So, ladies and gentlemen, I think the proof is overwhelming - absolutely overwhelming and unrefuted.

....

After defense counsel gave its closing statement, the state continued with the following:

Thank you, Doctor. And I say that jokingly with defense counsel, but did you hear anyone come in here and contradict Dr. Merigan? It's utterly ridiculous. There's no way that they can contradict him. As a matter of fact, there's only about five other people in the country that have his credentials, and none of them came in here.

They want you to acquit this man based on the bowel movements of the victim. That's ridiculous. That's utterly ridiculous.

....

And to say that man over there made all of this up is just ridiculous - utterly ridiculous. . . .

....

Ladies and gentlemen - it's so obvious, ladies and gentlemen. Please don't let this man go. . . .

The defendant claims that the prosecutor's repeated use of the phrases "utterly ridiculous," and "almost a complete joke"; his referring to defense counsel as "doctor"; and his plea to the jury not to let the defendant go were improper. He claims that the trial court should have stopped the prosecutor from making such remarks and instructed the jury to disregard them. The state argues that the defendant's failure to make a contemporaneous objection waived the issue and that the prosecutor was "simply pointing out that the defendant's theory did not make sense" and was "asking the jury to find the defendant guilty based on the evidence presented at trial."

The Tennessee Supreme Court has recognized that "argument of counsel is a valuable privilege that should not be unduly restricted." Smith v. State, 527 S.W.2d 737, 739 (Tenn. 1975). Jury argument must be predicated on evidence which is introduced during the trial and is pertinent to the issues being tried. Russell v. State, 532 S.W.2d 268 (Tenn. 1976). Attorneys may not argue facts which are not of record. State v. Beasley, 536 S.W.2d 328, 330 (Tenn. 1976). Improper

statements made during closing argument constitute reversible error if the statements affected the verdict. State v. Sutton, 562 S.W.2d 820, 823 (Tenn. 1978).

As the state points out in its brief, the defendant failed to object at trial to any of the prosecutor's statements. The failure to object contemporaneously constitutes a waiver of the issue pursuant to Rule 36(a), T.R.A.P. See also State v. Little, 854 S.W.2d 643, 651 (Tenn. Crim. App. 1992) (failure to object to prosecutor's alleged misconduct during closing argument waives any later complaint). Otherwise, we see nothing in the arguments that would improperly affect the substantial rights of the defendant.

Based on the foregoing and the record as a whole, we affirm the judgments of conviction.

JOSEPH M. TIPTON, JUDGE