IN THE COURT OF CRIMINAL APPEALS OF TENNESSEE
AT KNOXVILLE
December 16, 2008 Session

# STATE OF TENNESSEE v. DERRELL F. NUNN, SR. and JAMILA NUNN

**Appeal from the Criminal Court for Hamilton County**
**Nos. 242863 & 242864 Jon K. Blackwood, Judge, Sitting by Designation**

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**No. E2007-02333-CCA-R3-CD - Filed December 14, 2009**

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The Defendants, Derrell F. Nunn, Sr. and Jamila Nunn, appeal from their convictions by a jury in the Criminal Court for Hamilton County for aggravated child abuse, a Class A felony. The trial court imposed a sentence of twenty years to be served at one hundred percent for each Defendant. On appeal, the Defendants contend that the evidence presented at trial was insufficient to convict them and that the trial court erred in not granting their motions for judgment of acquittal. We affirm the judgments of conviction.

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

JOSEPH M. TIPTON, P.J., delivered the opinion of the court, in which THOMAS T. WOODALL and NORMA MCGEE OGLE, JJ., joined.

Daniel J. Ripper, Chattanooga, Tennessee, for the appellant, Derrell F. Nunn, Sr.
Melanie R. Snipes, Decatur, Georgia, for the appellant, Jamila Nunn.

Robert E. Cooper, Jr., Attorney General and Reporter; Deshea Dulany, Assistant Attorney General; William H. Cox, III, District Attorney General; Boyd M. Patterson, Jr., and Leslie Anne Longshore, Assistant District Attorneys General, for the appellee, State of Tennessee.

## OPINION

This case relates to the substantial injuries suffered by the Defendants' infant son, "D.J." At the Defendants' joint trial, D.J.'s grandmother, Sherry Daniel, testified that she saw him almost weekly and had interacted with D.J. since his birth. She said she was a registered nurse. She said that D.J., age five at the time of trial, suffered an anoxic brain injury, which left him unable to walk. She said he breathed through a tracheostomy, had asthma, and was fed through a feeding tube. She said he attended school and was in a special needs class. She stated D.J. could say a few words, but she agreed that he was "very severely handicapped" and had been so since September 5, 2002, when he was nine months old.

On cross-examination, Ms. Daniel testified that she was a critical care nurse in an intensive care unit treating adults. She said she had not been exposed to abused children during her nursing school rotation in a children's hospital, but she said she had been trained to look for signs of abuse in children. She said she became licensed as an R.N. in 1985. She said that although she lived in Alabama, she visited D.J. almost every week, either traveling to Chattanooga or his family coming to her. She said that she and he played together on the floor and that she held him frequently during their all-day visits. She said she took care of him when his parents went on vacation. She said she did not see any signs that would lead her to believe that D.J. had been injured or abused. She said she did not see any unexplained marks or bruises, which she stated she would note as a nurse, and she said D.J. was "very much loved." Ms. Daniel testified that Defendant Derrell was her oldest child and that Defendant Jamila was her daughter-in-law.

Ms. Daniel testified D.J. had been born prematurely. She said that he remained in the hospital three weeks after his birth and that some of this time had been spent in intensive care. She said D.J. initially had to be taught how to feed. She said his breathing improved. She said D.J. came home and had been a normal and active baby. She said his parents, the Defendants, were attentive to their new baby. She said that his parents both had jobs and that D.J. went to daycare each weekday. She said D.J. continued to go to daycare until he was diagnosed with respiratory syncytial virus (R.S.V.), which is a cold, and pneumonia. She said she saw him after his diagnosis, and she said he was continually coughing and wheezing. She said, "I could just tell he was not feeling well at all." She also said he had been breathing "hard." She said R.S.V. could be fatal in young children because their lungs fill up, the children stop breathing, and their heart stops beating. She said the last time she saw D.J. before September 5, 2002, was Labor Day weekend. She said that she the Defendants sought medical attention for D.J. between August 24 and September 5, 2002, because they called her after they spoke with D.J.'s healthcare providers. She said that in her experience as a nurse, a 105 degree temperature was serious in that it could cause seizures. She said depriving the brain of oxygen for five to eight minutes could cause irreversible brain damage. She said that it was possible for mucous to be caught in the throat of someone with R.S.V. and pneumonia and that these two illnesses were serious.

On redirect examination, Ms. Daniel testified that D.J. had been sick and had not been at daycare during the two weeks before September 5, 2002. She stated that in her experience as a nurse, a lack of oxygen to the brain would not cause a liver laceration, a kidney contusion, and fractures to the arm, leg, or skull.

Hoyt Dalton testified that he was certified as a nationally registered paramedic and worked with the Hamilton County Emergency Medical Services (E.M.S.). He said he saw D.J. on September 5, 2002, when he responded to a 7:17 a.m. call and arrived on the scene at 7:22 a.m. He said he found D.J. in respiratory arrest, meaning that although he was breathing at a deathly slow rate, D.J. still had a pulse. He said he documented that D.J. had been in his father's arms when he arrived, although he said he had no independent recollection of this. He said he briefly assessed the child's situation, which he called critical, and started providing care. He said D.J. took three to four breaths per minute and had a pulse of less than forty beats per minute. He said a normal eight-month-old would have thirty to forty breaths per minute and a pulse rate of 140 to 160 beats per minute. He said he immediately began using a bag valve mask ventilation to give D.J. additional

air supply. He said this mask forms a seal over the child's nose and mouth and forced air into the nose and mouth to travel to the lungs but did not enter the patient's nose or mouth. He said D.J. initially spit up a thin, milky substance when the mask pumped air, but he said he suctioned this fluid away to prevent it from traveling to the lungs. He said he did not see a mucous "plug" in the fluid. He said that he inserted a breathing tube and that he noted no obstructions. However, he said there was no outward response to the breathing tube, although he noted the oxygen saturation level increased to one hundred percent. He said D.J.'s pulse rate increased to 166 beats and Mr. Dalton continued assisting in the ventilations at around thirty breaths per minute.

Mr. Dalton testified that he spoke with D.J.'s father to obtain a history of what had occurred. He said the father told him that he had given D.J. a bottle of baby formula, that he placed him into the car seat, and that D.J. spit up and went limp. He said the Defendant told him that D.J. had recently had pneumonia. He said the Defendant told him only of the spit and did not mention any mucous. He said the Defendant did not tell him that he had performed chest compressions on D.J. Mr. Dalton said he did not see the Defendant performing CPR on D.J. He stated that he did not perform CPR on D.J. He said the Defendant did not tell him that D.J. had suffered any recent falls.

Mr. Dalton testified that he noted that D.J.'s eyes were fixed, meaning the pupils did not respond to light he shined in his eyes. He said this meant there had been a significant injury to the optical nerve from lack of oxygen or swelling of the brain. Mr. Dalton also noted blue-gray tinging around D.J.'s mouth, indicating a lack of oxygen. He said D.J. was limp in all aspects and was not trying to move. He said that in his opinion, D.J. was in a very critical situation and needed emergency care to live.

Mr. Dalton testified that he did not remember seeing or speaking with D.J.'s mother. He said D.J.'s father seemed very calm in view of the circumstances. He said that this was atypical and that normally in cases of very sick or injured children, he encountered very emotional, almost hysterical people.

On cross-examination, Mr. Dalton testified that damage to the optic nerve could occur immediately if breathing stopped but would not be instantaneous if the patient still tried to breathe. He said it was possible that a lack of oxygen from the time the 9-1-1 call was received until his arrival on the scene, approximately eight minutes, would be enough to cause brain damage. He said he did not note any baby formula in D.J.'s mouth during his initial assessment. He said the child spit up ten to twenty cubic centimeters of fluid during the ventilation treatment. He said he suctioned this fluid from the mouth, not the stomach. He said this amount of fluid could be consistent with a child who was spitting up. He said that he did not suction the child's lungs or nasal passages and that he would not expect a mucous plug to be suctioned into the mouth. He explained how he inserted a breathing tube into D.J. to allow more air into his body. He also said he gave D.J. an intraosseous infusion in his leg, which allowed him to insert fluid or medication into a patient quickly. He said the ventilation device had a mechanism to prevent him from providing too much oxygen to the child, but he said there was no danger of oversaturating D.J. because he did not have either asthma or chronic obstructive pulmonary disease (C.O.P.D.). He said he looked for evidence of trauma on D.J., but he said he noted no outward signs of trauma. He said that he did not have equipment to test the milky substance coming from D.J.'s mouth and that it would have been

discarded. He said he had not been told that D.J. had been diagnosed with R.S.V., had a recent temperature of 105 degrees, had been vomiting, or had thick mucous. He said he arrived at the scene at 7:22 a.m. and took D.J. to the hospital at 7:28 a.m. He said he performed the assessment, oxygen mask treatment, and suctioning during these six minutes. He said the intraosseous infusion began during transport to the hospital. He stated that everything he considered important to his assessment was documented in his report. He said he transferred D.J. to the emergency room at 7:45 a.m. He said he did not know D.J.'s parents and did not know their personalities.

On redirect examination, Mr. Dalton testified that vomiting could be a sign of a head injury. He said that according to his report, Mr. Nunn did not tell him that D.J. had asthma or C.O.P.D. He said that when someone was not breathing adequately, the lack of oxygen could damage the brain. He said he inserted the intraossesous injection into D.J.'s right tibia. On recross-examination, he testified that regardless of its cause, a lack of oxygen to the brain could cause brain injury. He said an "anoxic brain injury" is one resulting from lack of oxygen.

Chattanooga Police Officer Joe Warren testified that he responded to a call at the Defendants' home between 7:00 and 7:30 a.m. on September 5, 2002, although he said he did not remember a more specific time. He said he thought the fire department and E.M.S. were already there when he arrived. He said he spoke briefly with the victim's father, who said D.J. had been in and out of the hospital recently with pneumonia, had been coughing up mucous, and had been having difficulty breathing. He said he conveyed this information to E.M.S. He said that he asked the paramedic how serious the child's condition was and that the paramedic told him the child was in "bad shape." He said the paramedic asked him to escort the ambulance to the hospital because it was rush hour. He said he remembered the father had not been particularly upset, but he attributed this to the child's medical history. He said he did not recall if the father had told him he had performed chest compressions on the victim. He said he thought he saw the child's mother, but he said he did not recall. He said that he was at the scene for ten to fifteen minutes at most and that he left with the ambulance and another police officer. He said he did not return to the site.

Officer Warren testified on cross-examination that he was testifying from his recollection and that he did not prepare a police report himself. He said he reviewed a report prepared by Officer Michael Choquette. He said he usually did not answer patrol calls unless someone's life was in danger. He said he thought he relayed the father's information about D.J. to the emergency medical technician because he thought he arrived before they did. He said the father had been about to load the child into his car seat and may have been holding the baby. He said he recalled the child either was not breathing or was having difficulty breathing. He said he did not recall what the fire department, who also responded to the dispatch call, was doing at the scene other than taking care of the baby. He then acknowledged his confusion about who was holding the baby. He said he did not recall telling Detective Kevin Atkins that he heard congestion in the child's breathing. He said, however, that he recalled being at the scene, speaking with the child's father, and escorting the ambulance to the hospital.

Chattanooga Police Officer Michael Choquette testified that he responded to a dispatch on September 5, 2002, that a CPR was in progress on an infant. He said that when he arrived, the ambulance and Officer Warren were already at the scene. He said Officer Warren told him the child

was having difficulty breathing. He said he remembered seeing the man he later learned was the child's father at the scene, but he said he did not speak to him there. He said the father did not get into the ambulance but instead took another vehicle to the hospital. He said he did not remember seeing the child's mother. He said he wrote an incident report. He said that another officer remained at the home to ensure that no one entered or exited the home and that he and Officer Warren escorted the ambulance to the hospital.

Officer Choquette testified that he spoke with the child's father at the hospital. He said the father told him the child had been having breathing problems and mucous, the father was placing the child into the car, the child had some sort of problem, and the father called for an ambulance. He said he remembered the father seemed concerned and acted as a father who was worried about his child.

On cross-examination, Officer Choquette testified that the child was already in the ambulance when he arrived. He said that at that point, the only thing he knew was that the child was in respiratory distress. He said there was no evidence that a crime had been committed. He said that a lieutenant requested an officer stay at the home to prevent it from being disturbed and that another division of the police department was notified. He said he did not think he spoke with a doctor. He said he must have seen both parents in a car driving to the hospital because he documented that in his report. He said that although he did not remember it, he must have returned to the home later that morning because he signed a log book stating such. He said he remembered that he did not go into the house. He said he remembered speaking with the child's father, but he was unsure where the conversation took place.

Carolyn Brannon, a board-certified pediatrician, was accepted as an expert in the field of pediatrics. Dr. Brannon testified that she joined the group where D.J. was a patient in August 2002. She said she began seeing patients in September 2002. She said her colleague, Dr. Nita Shumaker, saw D.J. on August 26, 2002, and called her into the office to meet D.J. and his mother, Jamila Nunn. She said she did not examine the child at that time. She said D.J. looked like a happy eight-month-old baby. She said she saw D.J. as a patient on September 3, 2002. She said D.J. had been to the emergency room on August 24, when he was diagnosed with R.S.V. and pneumonia. She said D.J. had been prescribed an antibiotic for his pneumonia. She said D.J.'s mother called the office the morning of September 3 because D.J. had mucous and was choking. She said the office advised her to bring the child in. She said that when she examined D.J. on September 3, he looked "really good." She said his chest was clear, there was no congestion, and he was not wheezing. She said she found no tenderness when she felt his belly. She said D.J. was smiling and kicking. She said his mother seemed interested in and worried about her son.

Dr. Brannon testified that she next saw D.J. on September 5, 2002, after the office learned that D.J. was in the emergency room. She said she visited D.J. in the pediatric intensive care unit, assessed what was going on, and spoke with D.J.'s parents. She said D.J. was "basically comatose." She said he was lying in bed, was using a ventilator, and was unresponsive. She said she did not have an opinion on September 5 about the cause of D.J.'s condition. She said their office policy was to visit hospitalized patients and to respond to parents' questions. She told the Defendants to call if they had any questions.

Dr. Brannon testified that D.J.'s mother telephoned on September 11, 2002, asking if one of the pediatricians would speak to the family. Dr. Brannon said she went that afternoon to speak with them. She said the mother asked her to review D.J.'s chart, to examine D.J., and to tell them what the findings were in his case. Dr. Brannon said she reviewed the chart, spoke with the hospital physicians, examined D.J., spoke with the mother at D.J.'s bedside, and then spoke with the rest of the family at the mother's request. She said that on September 11, 2002, the cause of D.J.'s injuries was, in her opinion, child abuse. She said she told that to the family. She said she told them of D.J.'s injuries: a skull fracture, bleeding in the brain, bleeding behind his right eye, a torn liver bleeding into his abdomen, a bruised right kidney, and evidence of old fractures at his left wrist and left shin. She said she told the family that someone had hurt their baby.

Dr. Brannon testified that during this conversation, D.J.'s father sat next to her. She said he was not speaking much at the beginning. She said he got up, walked across the room, and gesticulated at her. She said he shook his fist at her and said, "How dare you say someone hurt my child? How dare you talk about pulling the plug on my child?" Dr. Brannon said that he was very angry and that his father-in-law jumped up and restrained him against a wall for approximately five minutes while she and the family continued to talk. She said she wanted to make sure the family's questions were answered. She said that the father sat back down with them and told her to leave but that the rest of the family asked her to stay and to answer more questions. She said that she left but that D.J.'s mother followed her into the hall, where she thanked her for coming and said, "Please don't hold this against us."

Dr. Brannon said that R.S.V. and pneumonia did not cause these types of injuries. She said that when she saw D.J. on September 3, she did not observe any swelling of the arm or leg or any broken bones. She said, however, that recognizing a broken bone in a baby is not always easy. She said if an infant is not yet crawling or walking, a broken bone is hard to see because there is no bruising or swelling to indicate a broken bone. She said she would not look for broken bones unless a parent asked her to do so, for example, after saying that the child had fallen or refused to bear weight. She said the treatment of R.S.V. is to keep the child's airway suctioned and to keep the oxygen level up.

On cross-examination, Dr. Brannon testified that when an infant or young child breaks a bone, the injury would hurt the child, and the child would react to the injury by crying at the moment of injury or during the period following the injury. She said that if a few weeks elapsed, the child could be asymptomatic. She said she did not necessarily expect the child to react to the touching or manipulation of the fracture site. She said, for example, that if a parent told her a child fell on her hand and had been holding her arm, Dr. Brannon could manipulate the arm, wrist, and elbow yet not cause the child pain. She said that in such cases she would obtain an x-ray of the limb and that the x-ray would reveal a fracture, which she said could mean a crack in the bone and not solely that the bones have been displaced. She said it was more typical not to observe a bone break just based on a child's reaction.

Dr. Brannon testified that she reviewed D.J.'s chart and that at no time did anyone suspect D.J. might have had a broken bone or might have been abused before the injuries for which he was hospitalized on September 5, 2002. She said that there had been no instance where she suspected

abuse and that she was legally required to report suspected child abuse. She said she fully examined D.J. on September 3, 2002. She said Dr. Shumaker had seen him in a follow-up visit after his emergency room visit. Dr. Brannon said the protocol for the examination varied based on the reason for the visit. She said that D.J., for example, came to the office for a cough and pneumonia. She said she examined his lungs, heart, abdomen, ears, nose, throat, and chest. She said she did not usually examine a patient's eyes unless the patient was at the office for a physical or had suffered an eye injury. She said that if his liver had been recently injured, she would have expected to feel tenderness in his abdomen when she examined him, which she said she did not observe. She said that at that time, he was a playful, bright, and normal child. She observed nothing at the time indicating abuse and nothing out of the ordinary. She said she knew he had been diagnosed with R.S.V., the symptoms being either cold-like or pneumonia-like. She said that R.S.V. could cause an accumulation of phlegm, which would be suctioned away at home through the nose. She said that this accumulation could make it harder for a child to breathe and could cause a child's oxygen level to drop. She said that if the level decreased, the baby would become less active because it would reserve all its energy for breathing. She said a baby would be breathing quickly and the struggle to breathe would be evident in the chest muscles' visible movement. She said that if a child had a lot of mucous, the child would perhaps not feel hungry and could actually vomit the mucous. She said D.J. was reported to have been been vomiting when he came in on September 3, 2002. She said his mother called the office because he was choking on phlegm and vomited. She said D.J.'s file documented telephone calls from D.J.'s parents on August 26, August 27, and September 5.

Dr. Brannon testified that she did not participate in D.J.'s treatment from September 5 through 11. She said the intensive care physician, Dr. Keegan, ordered the lab tests and x-rays. She stated that her opinion that someone had injured the child was based on her review of the chart, x-rays, CT scans, and ultrasounds and not upon her examination of D.J. She said she relied on the radiologist's reports of the scans. She said the hospital had pediatric radiologists who read D.J.'s scans. She stated that she had similar difficult conversations with families previously, but she said D.J.'s father's outburst had been the first time she had observed such a reaction. She also stated that he had asked appropriate questions before the outburst. She said she did not know whether the mother's statement, "Please don't hold this against us," referred to her husband's outburst or to the infliction of D.J.'s injuries.

Dr. Brannon testified that D.J. was born prematurely and that during his visit on September 3, 2002, he was smaller than average. She said, however, that he was growing and gaining weight appropriately. She said that at some point, Dr. Shumaker referred him to a cardiologist. Dr. Brannon said that R.S.V. lasted a long time. She said that no medications are prescribed for children of that age for R.S.V. and that the baby simply had to cough up the mucous. She said that antibiotics did not break up mucous and that D.J. had been prescribed an antibiotic for pneumonia. She said that on September 3, D.J.'s chest sounded clear and that he was improving, although his mother called because he was coughing and spitting up phlegm.

Dr. Brannon testified that an initial note from the emergency room stated that no retinal hemorrhages had been detected at D.J.'s 7:45 a.m. arrival. She said retinal hemorrhages result from the use of force on a child. She said that even if the hemorrhages were caused from the swelling of the brain, some event must have occurred to trigger the swelling. She said that an x-ray report

detected a fracture on D.J.'s left arm, while a second report from another day's x-rays noted "no definite fracture." She said this meant that the fracture had been healing by the date of the second x-ray. She said she did not state that the fracture occurred on September 5, 2002. She said she believed the bone had been fractured in view of the radiologist's report of periosteal reaction in the area, a reaction not occurring in normal bone.

Dr. Brannon testified on redirect examination that on September 3, 2002, D.J. had not yet been crawling. She said the only way he could have broken his bones himself would be through a fall. She said it took force to fracture bones, in spite of the fact that an infant's bones would be more plastic than an adult's. She said that on September 3, she did not notice any panting, conservation of energy, respiratory difficulty, mucous production, or coughing, and she said she did not see him vomit. She said she relied on the victim's mother's statements about D.J.'s symptoms. She said that D.J.'s brain injuries were definitely not caused by accumulating phlegm. On recross-examination, she said the father's outburst occurred after she told the family that someone had injured their child. She stated that it was possible for a child to have phlegm in the morning, to cough it up, and to have a clear chest later in the day.

Nita Shumaker, a board-certified pediatrician accepted as an expert in pediatrics, testified that D.J. became her patient shortly after he was released from the neonatal care unit after his birth. Dr. Shumaker said D.J. had been born approximately seven weeks early. She said he had respiratory issues that had resolved by the time he became her patient. She did not remember how long he remained in the hospital after his birth, but she said his premature birth did not cause him any problems. She said she referred D.J. to a cardiologist due to his increased heart rate during one visit, but she said the cardiologist found him to have a normal heart rate for his age. She said she saw D.J. regularly for his well-child visits and a few other appointments. She said he was a normal child, meeting the milestones for his age. She said that she had contact with D.J.'s parents and that she had had no concerns about them.

Dr. Shumaker testified that she saw D.J. in her office on August 26, 2002, which she said was one to two days after his visit to the emergency room for a high fever and respiratory issues. She said D.J. had recovered from his fever by this visit and looked great. She said she noted no congestion that was out of the ordinary for babies at that time of year. She said she performed a follow-up test of his liver enzymes, as requested by the emergency room physician who treated D.J. during his recent emergency room visit. She said this person had telephoned her saying that D.J. had elevated liver enzyme levels and that he suspected D.J. had a virus that was causing the elevated levels. Dr. Shumaker said that R.S.V. did not routinely increase the levels of the liver enzymes but that many viruses could cause the increase. She said that the test results showed D.J.'s liver enzymes had returned to a normal level and that this meant he was recovering. She said she had been waiting on the results of other tests performed at the hospital.

Dr. Shumaker testified that Dr. Brannon examined D.J. on September 3. Dr. Shumaker said she stopped by the room briefly and remembered that D.J. looked normal and happy. She said he was getting better. She said that she knew he went back to the hospital on September 5 but that she did not know how long he stayed there. She said she did not treat him while he was in the pediatric

intensive care unit, although he was later under her care after he was transferred from the pediatric intensive care unit and until he was discharged to a care facility.

Dr. Shumaker testified that D.J. was "neurologically devastated" when he was in the hospital. She said he was not interactive, did not respond to names, arched back and began breathing hard if someone touched or spoke to him, was agitated, and had high blood pressure. She said he was no longer neurologically normal. She said R.S.V. and pneumonia did not cause this type of brain injury. She said that after reviewing the record and treating D.J. when he left the pediatric intensive care unit, her opinion was that child abuse caused these injuries.

On cross-examination, Dr. Shumaker testified that her opinion was based upon review of D.J.'s hospital records, which contained statements from other doctors regarding the source of D.J.'s injuries. She said she first saw D.J. as a patient for his first visit on January 3, 2002. She said she examined him on account of his prematurity, difficulties eating and sleeping, problems with baby formula, and his small size, which she said were not unusual problems for a premature baby. She explained the reasons for D.J.'s subsequent visits and messages from his parents. She said D.J. had been seen regularly by physicians in her office, whether he was well for checkups or for visits when he was sick. She said she performed a full examination each visit consisting of listening to the child's heart and lungs, observing the child's development, appearance, movement and respiratory effort, checking the eyes occasionally, looking into the child's mouth, feeling the child's stomach, and checking the groin area for femoral pulses. She said that younger children would typically be undressed for the examination. She said she saw D.J.'s full body and did not see anything that would lead her to believe he was being abused. She said she was obligated to report suspected child abuse and would have to provide documentation supporting her suspicion. She said that including the September 3 visit, the notes in his file did not reflect a suspicion that he had been harmed. She said that although she would assume a liver problem resulting from abuse would be painful, she said she did not know how long the pain would last. She said she had not examined a patient soon after the infliction of that type of injury. She said that while retinal hemorrhages were typically diagnosed by a consulting ophthalmologist, an emergency room physician or other doctor could recognize the hemorrhages depending on his or her particular experience. She said the retinal hemorrhages had not been diagnosed when D.J. first reported to the emergency room at 7:45 a.m. She said his x-rays revealed a fracture on the upper part of his lower left leg, a fracture on his left forearm near the wrist, and a skull fracture. She said D.J.'s brain was swollen and created increased intracranial pressure that pushed apart the plates of his unfused skull.

Patrick Francis Keegan, a board-certified pediatrician working in the pediatric intensive care unit of the hospital that treated D.J. and eligible for board certification in critical care, was admitted as an expert in the field of primary critical care in pediatrics. Dr. Keegan testified that he treated D.J. on September 5, 2002. He said the emergency room attending physician notified him that a nine-month-old had arrived with an emergency medical services report of respiratory distress. He said the initial emergency room treatment consisted of inserting an intravenous line (IV), providing an antibiotic, and having a chest x-ray and a CT scan of his head performed. Dr. Keegan said the emergency room doctors thought D.J. had a subdural hematoma, and he said D.J.'s breathing was irregular. He said D.J. was transferred to the pediatric intensive care unit, where he met him.

Dr. Keegan testified that they put D.J. on a ventilator and connected an E.K.G. monitor and IVs to him. He said they performed a physical examination to try to determine what was going on. He said that as a part of the examination, he looked at the back of D.J.'s eyes. He said he thought D.J. had a retinal hemorrhage in one eye. He said he looked at the CT scan and thought D.J. had a subdural hematoma, which he defined as a collection of blood outside the brain but inside the skull underneath the tissue attached to the skull (the dura) and which occurs when the veins from the skull to the brain are torn. He said the subdural hematoma was located between the two halves of D.J.'s brain. He said a radiologist had not yet seen the scan when he looked at it. He said D.J. had seizures throughout the day, requiring two successive medications to stop them. He said they inserted a central IV line in his groin and obtained an x-ray of his pelvis and abdomen to ensure the IV line was properly placed. He said the radiologist wrote in the x-ray report that while the IV line was properly placed, there was too much fluid in the child's belly. Dr. Keegan said that he spoke with the radiologist about the child's dramatic drop in blood counts and that they suspected the child had sustained injury to other internal organs. He said they obtained a CT scan of D.J.'s brain and his abdomen. He said the radiology report from the CT scan of the abdomen revealed a large liver laceration and a significant amount of free fluid in the abdomen. Dr. Keegan said he consulted with a pediatric surgeon about giving the child a blood transfusion, which was done.

Dr. Keegan testified that he consulted with an ophthalmologist to get an expert opinion on the retinal hemorrhaging. He said an ophthalmologist examined D.J. three times and found extensive retinal hemorrhaging in one eye. He said a retinal hemorrhage was a blood clot in the back of the eye where blood vessels burst after having been subjected to increased pressure or rotational injury. He said the burst blood vessels leave bright red lesions at the back of the eye. He said that retinal hemorrhages caused by abuse remain for two to three weeks. He said that retinal hemorrhages could occur in cases other than abuse, including childbirth or cases involving leukemia or a rare metabolic disorder. He said the childbirth-induced retinal hemorrhages would go away within a week. He said that he performed tests to determine whether D.J. had one of these diseases when retinal hemorrhages could occur and that D.J. did not have them. He said that without an explanation for the cause of the subdural hematoma and the retinal hemorrhages, he suspected child abuse.

Dr. Keegan testified that he spoke with the child's parents as soon as D.J. was stable enough for him to do so. He said the Defendants told him that D.J. had been diagnosed with R.S.V. about two weeks earlier after going to the hospital with a 105 degree fever and a seizure. He said they told him that D.J. had temperatures at home of 101 degrees and 103 degrees during that episode. Dr. Keegan said that R.S.V. was the common cold, that everyone caught R.S.V., and that people usually caught it over and over again. He said R.S.V. would not cause a subdural hematoma and retinal hemorrhages. He said that if R.S.V. were to cause these injuries, everyone would be blind and developmentally delayed. He said that he asked the Defendants if D.J.'s appetite, activity, or behavior had changed and that they told him nothing had changed and that the Defendants told him D.J. had been fine, other than coughing and having phlegm. He said they told him that D.J. was being taken to daycare for the first time in two weeks, was being placed into his car seat, started coughing, and went limp. He said the family's story was inconsistent with his findings.

Dr. Keegan testified that at the intensive care unit on September 5, 2002, D.J. was kept on a ventilator to breathe for him and that they were preparing for what they anticipated would be a rapidly progressing swelling of his brain from whatever had caused the injuries. He said R.S.V. did not cause the subdural hematoma and the subdural hematoma did not cause the seizures. He said he could not believe the parents' story unless D.J. had a metabolism problem, for which he tested and received negative results. He said a significant amount of trauma was required to cause retinal hemorrhages and a subdural hematoma. He said examples of the amount of force required to inflict these injuries were a fall from a five-story building or being ejected from a car during an accident. He said he told the Defendants coughing or choking would not cause D.J.'s unconsciousness or either injury. He said the parents did not tell him that any traumatic event had occurred. He said he told them he was required to report suspected child abuse to the authorities. He said he told them that he was not accusing them but that D.J.'s injuries were inconsistent with what they said had happened. He said the father became angry and the mother told him she was a God-fearing woman and did not hurt her child. He said they did not ask him how, where, why, and when their child had been injured but instead thought he was accusing them. He said he left the room to call the police. He said the emergency room attending physician had already notified the police because he suspected child abuse.

Dr. Keegan testified regarding the bases for suspecting child abuse. He said that in addition to the subdural hematoma and retinal hemorrhages, D.J.'s blood counts were dropping, and he said there was an x-ray report expressing concern about the free fluid in his belly. Dr. Keegan said the subsequent CT scan of D.J.'s abdomen revealed that D.J.'s liver was almost torn in half. He said the scan showed one kidney had been bruised and his pancreas was injured. He said the liver, kidneys, and pancreas were difficult to injure because they were protected by the rib cage and the back muscles. He said the liver laceration required a tremendous amount of force to inflict and stated, "You can't hurt it unless you try." To indicate how much force was required, he said that football players were routinely kicked or hit in the belly, although their livers were unharmed. He said that having a car accidentally run over someone's chest would cause the liver to explode from the pressure. To have a kidney contusion, he said the child would have to have been kicked or punched "with some vigor." He said that for D.J. to have been injured to this extent, he would have to have been kicked, punched, or swung against a wall or other object. He said that D.J. had high blood pressure and that an ultrasound was performed to look at the veins and arteries around the kidneys, which Dr. Keegan said secreted a hormone that regulated blood pressure. He said that they already knew of D.J.'s kidney injury but that they wanted to know if D.J.'s blood pressure had increased due to a tear. He said that blood was not inside the blood vessels but was instead collecting in the gall bladder and was being secreted into the intestines.

Dr. Keegan testified that when a child less than one year old was suspected to be the victim of child abuse, a skeletal survey, which was an x-ray of as many of the child's bones as possible, was done. He said it was possible for a child to have broken a bone and for it not to be apparent, although he said it would hurt the child. He said that because babies grew quickly and their bones healed quickly, a fracture that might take six to eight weeks to heal in an adult could require only six to seven days to start healing in a baby. He said the procedure for the skeletal survey was to take one set of x-rays and then to take another set of x-rays two to three weeks later. He said the first skeletal survey revealed a broken left arm, two fractures in his left leg, and a fractured skull. He said

the arm and leg fractures were different ages, meaning that they had been inflicted at different times. He said the Defendants did not explain how these bone injuries could have occurred other than saying D.J. was put into his car seat, coughed, and went limp. He said they told him they were the only caretakers the child had for two weeks.

Dr. Keegan testified that neither he nor anyone else could state that the fractures occurred on August 25, the Friday before D.J.'s hospital visit for his fever. However, he stated that based on the x-rays and the x-ray report, he could say the arm fracture was three to six weeks old and one leg fracture was ten days to three weeks old. He said that the skull fracture could not be dated but that it generally healed within four to six weeks. He said the skull fracture increased due to the increased intracranial pressure from the dying of the brain. He said the pooling of the blood damaged the brain and caused it to swell. He said D.J.'s unfused cranial sutures allowed his skull to expand. He said the brain tried to expand out of the skull through the hole where the spinal cord brain stem enters the skull. He said that at that point, the swelling "changes who you are and how you are." He said the person's pupils would stop reacting, the blood pressure would become erratic, the person would lose his ability to breathe well and to control how fluid was managed in the body. He said that when brain cells were injured and died, they would swell and release fluid, which would cause the brain to swell further. He said that this process occurred in D.J. and that the only reason D.J. was alive was because his cranial sutures had not yet closed and could expand about one inch away from each other.

Dr. Keegan testified that the report from the first of several CT scans of D.J.'s brain revealed that portions of D.J.'s brain were dying. He stated that while there was no hematoma in the brain itself, there was a hematoma outside the brain inside the skull. He said the report to the second CT scan revealed that parts of the brain had died from a lack of oxygen and that D.J. had significant brain damage. He said a third CT scan revealed that another section of the brain was either dying or was going to die and that D.J. would either die or be severely handicapped.

Dr. Keegan testified that the cause of all D.J.'s injuries was child abuse. He said D.J. had been "beaten and beaten repeatedly." He said that although he first thought D.J. was a victim of shaken baby syndrome due to his subdural hematoma, retinal hemorrhages, and unconsciousness, D.J.'s injuries were more extensive than those caused by shaken baby syndrome. He said D.J. was a battered child. He said D.J. could not have a broken arm and a broken leg on two different dates from coughing in a car. He said retinal hemorrhages were not caused by choking on mucous. He said hanging and drowning victims, for example, did not develop retinal hemorrhages or subdural hematomas. He said that D.J. did not have osteogenesis imperfecta, but even if he had, this condition would not have caused brain bleeds, a lacerated or bruised liver, subdural hematomas, or retinal hemorrhages. He said that it was possible D. J. Had an "inborn error of metabolism," which could cause retinal hemorrhages and subdural hematomas, but that this condition would not cause a lacerated liver or broken bones. He acknowledged that retinal hemorrhages could be caused from vigorous CPR, but he said he had performed CPR numerous times and never had a patient suffer retinal hemorrhages from it. He said CPR did not cause a lacerated liver or bone fractures of varying ages. He said that when he examined D.J. two hours after his parents said he choked on phlegm, D.J.'s lungs sounded clear and his chest x-ray was clear. He said D.J. did not have "bad pneumonia" or mucous in his throat, although he acknowledged that D.J. might have had pneumonia the previous

week. He said D.J.'s parents' claim that his injuries were caused when he choked on a "gob of goo" in his throat was "pure fantasy."

Dr. Keegan testified that nine-month-old babies were more resilient than people thought. He said they grew and healed fast. He said a great amount of force would be required to inflict D.J.'s injuries. He said that to injure his liver, repeated punching or kicking in the stomach would be required. He said it was also possible to injure the liver by throwing D.J. against a wall. To inflict the type of fracture to his arm, someone would have to throw D.J. against a wall and D.J. would have to hold out his arm, which he said was a normal reflex for nine-month-old child. He said the skull fracture would require severe impact. To inflict the leg fracture, someone would have to swing him around by his leg while twisting it. He stated these injuries did not result from CPR, changing a diaper, or patting the child on the back. He said he brought scientific literature with him supporting his claims of how these types of injuries, when accidentally inflicted, were caused in car wrecks, being run over by a car, or being kicked or stepped on by a horse.

Dr. Keegan testified that in half of the cases of abuse, no bruising appeared on the child because a baby's belly was flexible. He said he saw no bruising on D.J. when he examined him except for the area of the shin in which an IV was placed. He said that bruises from the broken bones would have disappeared in view of the fractures' ages.

Dr. Keegan said that the injuries would have been painful to D.J. He said that with the broken arm and broken leg, D.J. would have been crying and "really fussy" for a few days. He said that the liver injury would have been terribly painful and that D.J. would have screamed when it occurred. He said the free fluid in D.J.'s abdomen would have inflamed the lining of his belly, made him irritable, elevated the level of liver enzymes, and caused him to vomit, have a fever, or have diarrhea. Regarding the brain injury, Dr. Keegan said he was confident that D.J. could not walk and certain that D.J. could not talk or carry on a conversation. He also said that if D.J. could see, which he doubted because the part of the brain controlling vision had been damaged, he could not see well. He said these brain injuries were inflicted on September 5, 2002. Referring to the photograph of D.J. introduced earlier, he stated that D.J. was held in place in his wheelchair by side braces and a restraining belt because he could not control his "trunk." Dr. Keegan said D.J.'s face appeared full in the photograph not because it was swollen, but because the damaged parts of his brain had atrophied and disappeared, thereby diminishing the size of the brain and rendering it smaller in proportion to his face. He also noted D.J. was breathing through a tracheostomy tube.

Dr. Keegan indicated that it was not possible that a baby started choking and that eight to ten minutes later, emergency medical personnel noted the child's eyes were unresponsive to light. He said that in a typical case involving shaken baby syndrome, the abuser recounts the patient's history as that the child was fine and then suddenly not fine. He said the victim would lose consciousness, and the abuser would delay seeking immediate medical treatment for the victim. He said the child would not be breathing. He said that medical literature reflected that children who survive battered child syndrome would have profound disabilities: cerebral palsy, seizure disorder, inability to control secretions, inability to eat, and inability to walk.

Dr. Keegan testified that in view of all of D.J.'s injuries, the lack of explanation offered by his caretakers for these injuries, and D.J.'s not testing positive for blood or metabolic diseases that might cause the retinal hemorrhages, he concluded D.J. was a battered child. He said that although D.J. was born prematurely, he was not placed in intensive care after his birth due to a brain injury or deficient body parts. He said D.J. was there because he could not regulate his body temperature and had problems with feeding. He said D.J. was fairly healthy at that time. He said D.J.'s breathing rate resolved without needing to provide him air. He said that when he saw D.J. on September 5, 2002, he was of average size in both height and weight. He said D.J.'s head circumference was average. He said that generally speaking, premature babies did not like to be held because they did not bond with their mothers shortly after childbirth.

On cross-examination, Dr. Keegan testified that he works from the clues provided by his patients' families to make a "differential" diagnosis. He said he began writing his notes at 9:00 a.m. He said he obtained a patient history separate from those obtained by two pediatric intensive care residents. He said his first note listed retinal hemorrhages, subdural hematoma, and respiratory failure. He said that when he dictated his report at 12:15 p.m. that day, he had more information that pointed to child abuse. He said that he read and interpreted an initial CT scan report stating a possible subdural hematoma as a positive finding of a subdural hematoma. He said "a CT scan does not look at the area below the cerebellum well, and an MRI is normally done for that." He said, however, a critically ill patient such as D.J. could not be placed in an MRI machine for the two hours needed for the imaging. He said he did not know what an MRI would have shown in this case. He said that the CT scan revealed bruising, which he said was the collection of blood, in the brain. He stated the general duties of radiologists were to look at x-rays and to perform interventional procedures, for example, removing a stone or blocking an artery for a stroke patient.

Dr. Keegan testified that retinal hemorrhages were "flame-like" lesions that burst. He said retinal hemorrhages were clots, not bleeding. He said he saw retinal hemorrhages in only one of D.J.'s eyes. He said an ophthalmologist diagnosed this condition after seeing D.J. more than once. He said unilateral retinal hemorrhaging from child abuse occurred about thirty percent of the time, while hemorrhaging in both eyes from child abuse occurred about sixty percent of the time. He said the most common cause of retinal hemorrhages in babies was their birth. He said that for children that were D.J.'s age, retinal hemorrhaging could occur from vigorous CPR, a metabolic disorder, certain bleeding disorders, and child abuse (either shaken baby syndrome or battered child syndrome). He said that he tested D.J. to find whether he had any of these and other disorders and that the results were negative. He said these causes constituted approximately ninety-nine percent of all retinal hemorrhages in children of D.J.'s age. He said that while increased cranial pressure had been theorized to cause retinal hemorrhaging, it had not been proven to do so. He said that severe coughing could not increase intracranial pressure. He said patients with whooping cough did not have retinal hemorrhages or subdural hematomas. He said vomiting did not increase intracranial pressure. He said causes of increased intracranial pressure included strangulation and hanging, having a car sitting on one's chest, meningitis, and certain brain tumors. He said he did not believe that increased intracranial pressure caused retinal hemorrhaging, but he agreed that a variety of circumstances could cause intracranial pressure to increase.

Dr. Keegan testified that healing time for bones depended on the type of fracture involved. He stated that if a bone had been broken completely in half, the healing time would be longer than for a crush-type fracture, which could heal within three to six weeks. If the fracture involved the peeling of the outer layer of bone into a ridge, such as one of D.J.'s leg fractures, the healing time would be three to four weeks. He said that D.J.'s tibia fracture was from ten days to three weeks old. He acknowledged saying in an earlier hearing that the peeling-type fracture would be visible within ten days of the injury and usually disappeared in three weeks. He said the fact remained that the fracture was there, although they could quibble regarding whether it would be visible two or four weeks after the injury. Dr. Keegan said he could not identify a specific date on which the fractures occurred. Rather, he said he could only give a range. He said D.J.'s peeling-type fracture would heal and would no longer be visible on an x-ray three to four weeks after the injury. He said that D.J.'s fractures did not occur on the same date and that the radiologists stated as much in their several reports from x-rays taken on different days by labelling the injuries "acute," "subacute," and "chronic." He agreed that one report, dated September 16, 2002, did not use any of these terms. Dr. Keegan said that he was not qualified to give an "official interpretation" for a radiology report but that he was qualified to make decisions based upon the radiology reports and the x-rays, which he reviewed daily.

Dr. Keegan testified that he treated D.J. on the first and fifth days he was in the pediatric intensive care unit. He said he was in the room with D.J. the entire day on these two days. He said other pediatric specialists treated him on the interim days. He said he saw D.J. and the other patients on the other days because he was at the hospital teaching residents. He said he kept abreast of all the patients although he was not the person managing the patients' care on these days. He said that while the first x-ray report of D.J.'s head stated that the injury could be a skull fracture or a vascular groove, the subsequent reports from other x-ray views documented a clear skull fracture. Dr. Keegan said he was not aware that D.J. had been in daycare until August 24, 2002, but he said the Defendants told him that he had not been in daycare for two weeks on September 5, 2002. He said he did not know how many days per week the child attended daycare. He said the Defendants told him that D.J. had been home with them for two weeks and that D.J. had no other care providers during that time. He said he did not mean to imply that D.J. was home with both parents at the same time. He said he asked the Defendants questions to try to identify D.J.'s risk of exposure to a sick person. He said he did not ask for information regarding the times when one parent was home without the other. He said he was only interested in the number of care givers for the child.

Dr. Keegan testified that liver damage similar to D.J.'s could be caused by driving a 2000-pound car over his chest or by kicking him underneath the ribcage. He said the kick-type injury would not press the skin against the ribs and would not leave a bruise fifty percent of the time. He agreed that D.J. was struck with such force as to injure the liver and the kidneys behind it but leave no exterior mark. He said he did not ask about D.J.'s broken bones or bruising because he did not know about the fractures until the skeletal surveys had been taken. He said he followed accepted protocol in evaluating child abuse cases and did not take a neck x-ray or CT scan to evaluate for a neck injury. He said he did not see laboratory reports showing blood in D.J.'s urine and said it would not appear from a bruise to the kidney.

Dr. Keegan testified that he did not know why someone would violently shake a baby. He said battered child syndrome included shaken baby syndrome. He said, however, that fractures of different ages and "solid organ injury" were not part of shaken baby syndrome. He said he was certain that D.J. had bruises at some point, but he said that in his opinion, the skull fracture was not inflicted the day when D.J. was brought to the intensive care unit, September 5, 2002. He said he made this determination because D.J. did not have any swelling when he arrived in the intensive care unit.

Dr. Keegan testified that D.J.'s liver laceration was both acute and chronic. Regarding the older injuries, he said he was told that D.J. had elevated liver "functions" in both the emergency room and Dr. Shumaker's office, as well as a history of vomiting and a high temperature. For the newer injuries, he said D.J. had an "acute bleeding process" taking place when he arrived in the pediatric intensive care unit. He said it was possible that the liver had been damaged before August 24, 2002, when the higher enzyme levels were noted, but he said it was definitely damaged on September 5, 2002. He agreed that there was a range of possible dates of injury. He said that it was hard to generalize about the date of injury to the kidney but that it was well-documented that premature babies did not like to be held. He said documentation from the emergency room stated that D.J. had high blood pressure and a low heart rate, which were symptoms consistent with someone about to die from increased cranial pressure. He said the symptoms did not occur from disorders or sepsis. He stated that for babies, especially, forty percent of the blood from each heartbeat goes to the brain, which needs oxygen, blood, and glucose. He said that without these vital materials, areas of the brain would become susceptible to dying, causing an anoxic brain injury. He said D.J. survived nearly being beaten to death because he received expert medical care and his skull sutures were still open. He said that the Defendants did not tell him a patient history that would explain D.J.'s injuries, although he said they told him D.J. had been in the emergency room recently.

Sergeant Kevin Akins, a thirteen-year veteran of the Chattanooga Police Department, testified that he was notified of the case on September 5, 2002, at about 9:45 a.m. He and a homicide detective received a call that CPR was in progress on a child. He said that after they learned the child would live, he became the lead investigator of the case. He said he spoke with the hospital nurses and Dr. Keegan to learn about the child's injuries. He said that at that time, they knew only of the subdural hematoma and the retinal hemorrhages, both of which he said were clues for child abuse. He said he obtained consent to search the house from both parents, whom he identified in court as the Defendants. He said an officer had stayed at the residence to prevent anyone from entering or leaving it, and he said he, Detective Holloway, and Derrell went to the home. He identified photographs as accurately depicting the residence when he entered it. He said they went to the house looking for anything appearing out of the ordinary to give them a clue as to the cause of D.J.'s injuries.

Sgt. Akins testified that he obtained a recorded statement from Derrell Nunn at the house and one from Jamila Nunn later that day at the hospital. Both statements were played in court.

In his statement, Derrell Nunn said that he awoke on September 5, 2002, at 6:20 a.m. He said he was a teacher and needed to be at school at 7:30 a.m. He said his first contact with D.J. that day was when he picked him up to leave for daycare. He said D.J. went to daycare every day from

7:10 a.m. until 4:00 or 5:00 p.m., when he picked him up. He said his wife had gotten D.J. out of his crib that morning, had changed his diaper and clothes, and had given him a bottle and his medicine. He said D.J. cried because he did not like the medicine. He said D.J. had calmed down by the time he picked him up to leave. He said he could hear D.J. had mucous in his chest and throat. He said D.J. was trying to cough up mucous, "froze," became rigid, and then went limp. He said his wife came outside to make sure they had what they needed for that day. He said he did not know if D.J. was breathing then. He said D.J. was wheezing. He said his wife took D.J. from him, went inside, and called 9-1-1. He said he held D.J. while she was on the telephone speaking with emergency services for about two minutes. He said a police officer arrived before the emergency medical services did. He said that D.J. had recently had pneumonia and R.S.V. and that he had a seizure due to a 105 degree temperature two Saturdays earlier. He said Dr. Shumaker was D.J.'s regular pediatrician. He said D.J. had not been diagnosed with any other illnesses. He said D.J. was crying that morning and was coughing a lot. He said D.J. had not been eating his baby food and had spit up his formula. He said that his wife was off the previous day taking care of D.J., that he was off four days the week before, and that his wife had been off much of the week before that. He said D.J. had attended daycare since he was seventeen months old. He said D.J. was born prematurely at thirty-three weeks and stayed in the hospital three weeks after his birth. He said that he and his wife got along and that they had "normal . . . spats" with nothing "outrageous." He said he did not know how the retinal hemorrhaging and the subdural hematoma happened. He said his father-in-law experienced "the same thing" last year and lived, but he said he did not know his diagnosis.

In her statement, Jamila Nunn said D.J. was "normal" that morning. She said she gave him his bottle and his medicine. She said she got up that day before her husband around 6:10 or 6:15 a.m. She said that she heard D.J. stirring in his crib and that she went downstairs to get his bottle before getting him out of the crib shortly before 7:00 a.m. She said he cried for her to pick him up. She said she gave him his bottle and his medication for pneumonia. She said that D.J. had a seizure two Saturday nights earlier due to a 105 degree fever and that he had been diagnosed at the hospital with R.S.V., which she said was similar to a bad cold. She said Dr. Shumaker saw him the following Monday and told her D.J. had increased liver enzymes, which she said Dr. Shumaker attributed to high blood pressure. She said he was later diagnosed with pneumonia after receiving the results of his laboratory work. She said that the morning of September 5, 2002, D.J. drank three ounces of formula and that he could hold the bottle. She said he had not been eating properly. She said she placed him on the bed, where she monitored him while she was in the bathroom getting ready. She said he cried when he saw her because he wanted to be held, as she and her husband held him frequently during the two weeks he was at home. She said he cried because they had not been holding him as much now that he was better. She said she continued to get ready. She said she did not hear the car. She said her husband was taking D.J. to the babysitter, not the daycare, because D.J. had been sick. She said her husband's work began at 7:30 a.m. She said she looked out her window in the upstairs bedroom and saw her husband pushing the car seat back. She said she was unsure where D.J. was. She said she went outside and saw her husband with his foot on the car and D.J. sitting on his bent leg. She said she grabbed D.J. and patted him on his back. She said that he was limp and that she heard a wet sound in his throat when he tried to breathe. She said the three of them were outside about one minute. She said her husband and D.J. had been outside for one to two minutes before she went outside. She said she took D.J. inside, where she called 9-1-1. She said her husband held D.J. while she spoke on the telephone. She said that she performed CPR on D.J.

and that his stomach was soft. She said the police arrived, with the emergency medical services arriving shortly thereafter. She said the E.M.S. took D.J. to the hospital.

Ms. Nunn said in her statement that D.J.'s injuries baffled her. She said she did not shake her child. She said he had not been shaken around in the car and had not been rolling around on the bed and hit his head on the headboard. She also said he did not fall off the bed. She said she did not think her husband would shake their child. She said they had been married over one year and had "new couple" problems. She said they were both twenty-four, and she stated that one time when she was "furious," her husband restrained her. She said there had been no other violent episodes. She stated that her father suffered a brain injury the previous summer but that she could not remember the diagnosis. She said the fact that people might think she caused D.J.'s injuries scared her. She said the theory that the child had been shaken violently was "out" because she would not shake her child.

Sergeant Akins testified that he did not arrest the Defendants immediately after obtaining their statements. He said he continued to investigate the case for several months. He said he notified Child Protective Services, as he was obligated to do. He said he learned of the injuries to D.J.'s pancreas, kidney, and liver later that evening. He said he continued to follow up with Dr. Keegan from September 5 through 13, during which time he learned of D.J.'s fractures. He said that he asked Dr. Keegan if he could give him a date on which the fractures occurred but that Dr. Keegan told him he could not do so. He said that he learned the fractures had been healing and that the organ injuries occurred "not long" before D.J. arrived at the hospital on September 5.

Sgt. Akins testified that he spoke with Dr. Shumaker, who said D.J. had been a normal, happy baby. He said that she did not know of any illnesses other than R.S.V. and that she had not seen any signs of injury. He said that she had last seen D.J. on September 3 and that D.J. was normal that day. He said she had already been apprised of the injuries diagnosed at the hospital when he spoke with her.

Sgt. Akins testified that he spoke with Dr. Brennan, who said she saw D.J. in the office for a checkup on September 3, 2002. He said she saw no signs of injuries on that date. He said she told him D.J. was playful and normal at the visit. He said she told him of her conversation with D.J.'s family at the hospital and of Mr. Nunn's outburst. Sgt. Akins said he went to Alabama to observe D.J. at his preschool. He said D.J. was restrained in a wheelchair and was not moving on his own. He said the nurse was feeding him through a tube to his stomach. He said D.J. had a breathing tube.

On cross-examination, Sgt. Akins testified that within two hours of D.J.'s arrival at the hospital on September 5, he was brought into the case as a child abuse investigator. He agreed that he spoke with Dr. Keegan, who told him that the injuries were caused by shaking the child and trauma to the head and could not be caused by other means. He said that he was not at the house when it had been secured and that to his knowledge, no officer had remained to guard it after the ambulance left. He said Mr. Nunn went with the officers to unlock the house. He said he saw a medicine "dropper" that had pink residue inside it. He said one of D.J.'s parents told him that D.J. had been sick for two weeks, that the father stayed home one week, and that the mother stayed home from work the other week to care for him. He said Mr. Nunn told him he had not been home much

during the twenty-four hours preceding the 9-1-1 call and hospital visit because he had been working and volunteering. He said he saw no evidence at the residence that the child had been thrown against a wall or other object. He said it was the normal practice for Dr. Keegan to tell him that the radiologist would review the x-rays and that Dr. Keegan could not give him a specific fracture date.

Sgt. Akins testified that D.J.'s parents told him they had given D.J. a bottle. He said the scene he observed at the house corroborated this. He said Ms. Nunn said D.J. had wanted to be held that morning because he had gotten used to being held during the two weeks he spent at home. Sgt. Akins said he did not bring the 9-1-1 recording, which he said he requested several times but was never provided. He said he remembered writing that Officer Warren heard congestion in D.J.'s breathing when he arrived on the scene. He said he wrote in his report that Dr. Keegan had told him on September 13 that the injuries to the internal organs and head were acute and had happened just before D.J. was brought to the emergency room. He said he obtained D.J.'s hospital records from his numerous visits and stays. He said he sent a Child Protective Services worker to D.J.'s daycare center who conveyed their information to him. He said he sent this person because people were more communicative with Protective Services than with a police officer because the worker had the authority to close a daycare center. He said he was not sure if he received a time frame for the fracture injuries other than that they had been healing, such that they occurred before September 5, 2002. He said that while the time frame of the fractures was not the "end-all" of the case, he considered it to be important. He said he spoke with D.J.'s maternal grandparents about the grandfather's brain disorder. He said that he did not think he spoke with D.J.'s paternal grandmother and that he did not know about the family gathering before September 5, 2002. He said he focused his investigation on the two weeks during which D.J. stayed at home before September 5, 2002, and that date, as well, because the parents told him that they were the only people around D.J. during that time. The Defendants were convicted of aggravated child abuse upon the foregoing evidence.

Defendant Derrell Nunn contends on appeal that the trial court erred in failing to grant his motion for judgment of acquittal and his motion for new trial because the proof was legally insufficient to convict him of aggravated child abuse. Relying on State v. Hix, 696 S.W.2d 22 (Tenn. Crim. App. 1984), overruled on other grounds by State v. Messamore, 937 S.W.2d 916, 919 n.3 (Tenn. 1996), and an unpublished opinion from this court in which the Tennessee Supreme Court concurred in results only, he claims the State did not prove beyond a reasonable doubt that he or the co-Defendant inflicted the injuries on the victim or that he or the co-Defendant acted with the requisite mens rea to inflict the injuries.

Defendant Jamila Nunn contends that the proof was insufficient to convict her of aggravated child abuse. Relying on the same unpublished case as Derrell Nunn, she claims the mere fact that her explanation of the source of the injuries conflicts with medical testimony regarding the cause of the injuries is insufficient to convict her of the offense. Asserting that the evidence shows some of the injuries could have been inflicted sometime before the two-week period in which D.J. was cared for solely by his parents, she also claims that the State did not prove who inflicted the injuries and did not elect which injuries constituted the offense. She also contends that the trial court erred in failing to grant her motion for judgment of acquittal.

The State responds that the evidence was legally sufficient to convict both Defendants of aggravated child abuse. The State refutes the Defendants' reliance on State v. Hix, arguing that in the present case, the jury charges for both Defendants included theories of criminal responsibility, including failure to make a reasonable effort to prevent the commission of the offense when the person has a duty to act to prevent the commission of the offense and acting to promote or assist in committing the offense. See T.C.A. § 39-11-402(3) (1997).

On appellate review of a denial of a motion for judgment of acquittal, we apply the same standard as a question of the sufficiency of the evidence. See, e.g., State v. Brewer, 945 S.W.2d 803, 805 n.2 (Tenn. Crim. App. 1997). Our standard of review when the sufficiency of the evidence is questioned 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 (1979). This means that we may not reweigh the evidence, but must 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).

______"A crime may be established by direct evidence, circumstantial evidence, or a combination of the two." State v. Hall, 976 S.W.2d 121, 140 (Tenn. 1998). For an accused to be convicted of a criminal offense based solely upon circumstantial evidence, "the facts and the circumstances 'must be so strong and cogent as to exclude every other reasonable hypothesis save the guilt of the defendant, and that beyond a reasonable doubt.'" State v. Sutton, 166 S.W.3d 686, 691 (Tenn. 2005) (quoting State v. Crawford, 470 S.W.2d 610, 612 (1971)).

> "A person commits the offense of aggravated child abuse . . . who commits the offense of child abuse . . . as defined in § 39-15-401 and:
>
> (1) The act of abuse . . . results in serious bodily injury to the child;
> . . .
>
> (b) A violation of this section is a Class B felony; provided, however, that, if the abused . . . child is six (6) years of age or less, the penalty is a Class A felony.

T.C.A. § 39-15-402(a)(1), (b) (1997 & Supp. 2002).

"Any person who knowingly, other than by accidental means, treats a child under eighteen (18) years of age in such a manner as to inflict injury" commits a form of child abuse. Id. § 39-15-401(a). "Serious bodily injury" includes "bodily injury" involving a substantial risk of death, protracted unconsciousness, extreme physical pain, protracted or obvious disfigurement, or protracted loss or substantial impairment of a function of a bodily member, organ or mental faculty. Id. § 39-11-106(a)(34) (2006). "Bodily injury" can include a cut, abrasion, bruise, burn or disfigurement, physical pain, temporary illness, or impairment of the function of a bodily member, organ, or mental faculty. Id. § 39-11-106(a)(2). A person acts "knowingly"

> with respect to the conduct or to circumstances surrounding the conduct when the person is aware of the nature of the conduct or that the circumstances exist. A person acts knowingly with respect to a result of the person's conduct when the person is aware that the conduct is reasonably certain to cause the result.

Id. §§ 39-11-106(a)(20); -302(b) (2006).

A person is criminally responsible for an offense committed by the conduct of another, if:

> . . .
>
> (2) Acting with intent to promote or assist the commission of the offense, or to benefit in the proceeds or results of the offense, the person solicits, directs, aids, or attempts to aid another person to commit the offense; or
>
> (3) Having a duty imposed by law or voluntarily undertaken to prevent commission of the offense and acting with intent to benefit in the proceeds or results of the offense, or to promote or assist its commission, the person fails to make a reasonable effort to prevent commission of the offense.

Id. § 39-11-402(2) and (3) (2006).

The evidence reflects D.J. suffered serious bodily injury resulting from child abuse. His pediatricians and grandmother testified that D.J. was a normal, happy, and active baby, in spite of his premature birth. After his parents called 9-1-1 on September 5, 2002, because he was not breathing and was "limp" and unconscious, D.J. was rushed to the emergency room by ambulance and transferred to the pediatric intensive care unit. He was diagnosed with retinal hemorrhages in one eye; a subdural hematoma; a liver laceration that tore his liver almost completely into two parts and that caused extensive internal bleeding in his abdomen; a bruised kidney; an injured pancreas; and fractures to his skull, arm, and leg that had been inflicted at different times, including shortly before D.J. was transported to the hospital.

The evidence showed D.J. had multiple seizures while at the hospital, his eyes were unresponsive to light when emergency medical services arrived at his home, and his brain swelled from the injury that caused the subdural hematoma. The testimony reflected that D.J.'s brain was dying due to lack of oxygen and that without expert medical intervention, D.J. would have died. The physicians' testimony was that the injuries would have caused terrible pain to D.J. and that he would have been screaming after the injuries to his abdomen were inflicted. Dr. Keegan also stated that D.J.'s brain was smaller after parts of it died, rendering his face large for his diminished skull size. He said D.J. could not control his body's movements, including holding himself upright; could not breathe on his own; could not eat unless through a feeding tube; could not see well if he could see

at all; and could not carry on a conversation if he could speak, which his grandmother said he could do on an extremely limited basis. The three physicians testified that R.S.V., pneumonia, and CPR do not cause all the injuries D.J. sustained, and they also stated that in their professional opinion, D.J.'s injuries were caused by child abuse. Dr. Keegan testified that the Defendants' assertion that D.J. choked on mucous from R.S.V. and pneumonia and then went limp while he was being placed in his car seat did not explain his extensive, life-threatening injuries.

The requirements that the accused knowingly treat a child "in such a manner as to inflict injury" by "other than by accidental means" have also been satisfied. First, Dr. Keegan testified that D.J. was beaten repeatedly. He said that tremendous force was required to fracture D.J.'s skull. He explained that the liver, kidneys, and pancreas were naturally protected by the rib cage and muscles and that they could not be injured through, for example, sports. Regarding the liver, Dr. Keegan said, "You can't hurt it unless you try." He said that although babies were not as fragile as people may think, the amount of force involved in D.J.'s case must have been substantial. Second, Dr. Keegan testified that the injuries were caused by kicking, punching, throwing D.J. against a wall or other object, or swinging D.J. by his leg while twisting it. None of these behaviors would have been accidental in nature. Third, Dr. Keegan said the Defendants also did not offer a medically plausible explanation for D.J.'s severe injuries, scenarios which he testified would include having a car drive over a child's chest, being ejected from a car during an accident, or being kicked by a horse. In their statements to medical personnel and to law enforcement, the Defendants never claimed that D.J. had suffered an accidental injury, let alone one as severe as the examples above. Dr. Keegan also testified that he tested D.J. for blood and metabolic disorders that could cause some of the injuries, but not all the injuries together, and that D.J. did not have any of these disorders.

The Defendants claim that the evidence is legally insufficient to prove that either one inflicted the injuries and shows instead that the injuries were accidental. We disagree. The testimony reflects that the subdural hematoma, brain damage, and seizures occurred from trauma inflicted shortly before D.J. was taken to the hospital on September 5, 2002. The evidence also shows that D.J. was still bleeding from his torn liver when he arrived at the hospital that day. Contrary to Ms. Nunn's claim that the fractures, liver laceration, kidney contusion, and retinal hemorrhages could have been inflicted before the two-week period when D.J. was in the sole care of his parents, the evidence reflects that only the bone injuries and older liver injury could have occurred outside the two-week period before and including September 5, 2002. The evidence showed that D.J. had suffered an older liver injury in addition to the bleeding tear and that healing times for bones were from ten days up to three weeks for the leg fracture, three to six weeks for the arm fracture, and four to six weeks for the skull fracture. Dr. Keegan testified that in a typical shaken baby scenario, the patient's history is that the victim is normal, then suddenly unconscious and not breathing. The testimony also reflects that D.J. appeared happy and healthy on September 3, 2002, during a visit to his pediatrician's office. The Defendants told hospital personnel and law enforcement officers that D.J. was in their exclusive care on September 5, 2002, and had been in their exclusive care for the two weeks up to that date. Dr. Keegan testified about the amount of force needed to generate injuries such as D.J.'s. He also testified about circumstances in which these types of injuries could occur accidentally: being driven over by a car, being kicked by a horse, or being ejected from a car during an accident. At the hospital or in subsequent questioning, D.J.'s parents provided no history that included any of these events or that would plausibly explain D.J.'s injuries,

thereby removing any possible theory of accidental harm. The Defendants were both at home the morning of September 5, 2002, which was the time in which Dr. Keegan testified the trauma causing the brain injuries was inflicted. In view of the continued bleeding of D.J.'s liver when he arrived at the hospital, the jury could reasonably infer that the liver and other internal injuries were inflicted at that time, as well, causing terrific pain to D.J., who would have been screaming. A rational jury could find beyond a reasonable doubt that in the light most favorable to the State, one or both Defendants inflicted the injuries on their child before calling 9-1-1 on September 5, 2002, and if either Defendant did not inflict the injuries, that Defendant was criminally responsible because he or she failed to make a reasonable effort to prevent the beating. The Defendants are not entitled to relief.

While the Defendants assert that no evidence shows that one or both of them inflicted this abuse on D.J., we disagree. The Defendants told law enforcement officers and Dr. Keegan that they were D.J.'s only caregivers during the two-week period before September 5, 2002, when D.J. was sick with R.S.V. and pneumonia and could not attend daycare. The testimony reflected that neither of D.J.'s pediatricians ever saw D.J. in any condition similar to the unconscious and unresponsive condition in which he was brought to the hospital on September 5, 2002. Dr. Keegan said the liver injury was both chronic and acute, and it was bleeding when D.J. was at the hospital on September 5, 2002. The evidence is legally sufficient to convict the Defendants of aggravated child abuse. See State v. Erica D. Goodner and Troy Allen Goodner, No. E2007-01048-CCA-R3-CD, Hamilton County, slip op. at 21-22 (Tenn. Crim. App. Mar. 10, 2009) (rejecting defendants' claims in reckless aggravated assault and criminally negligent homicide case that the evidence failed to show anything more than defendants' presence around the child in view of testimony that injuries were not accidental and were inflicted during the time when the defendants were the victim's exclusive caregivers).

The Defendants were charged using a theory of criminal responsibility. Parents have a duty to protect their children from child abuse. See State v. Hodges, 7 S.W.3d 609, 623 (Tenn. Crim. App. 1998) (stating that defendant who was victim's step-parent and caretaker "bore a duty to protect [the victim] from harm and provide [the victim] with emergency attention"). The trial testimony reflects that D.J. would have alerted his parents to his injuries by screaming and crying in pain when the injuries were inflicted. The evidence shows that both Defendants were at home with D.J. at the time the subdural hematoma was inflicted. The Defendants cite State v. Hix and State v. Jimmy Lee Jones and claim the facts are analogous. We disagree that this case is controlled by either Hix or Jones.

In State v. Hix, 696 S.W.2d 22 (Tenn. Crim. App. 1984), overruled on other grounds by State v. Messamore, 937 S.W.2d 916, 919 n.3 (Tenn. 1996), this court reversed the defendants' convictions for assault and battery as well as child abuse after concluding that the circumstantial evidence placing the victim in the defendants' care during the period in which the victim's fatal injuries were inflicted did "not square with the constitutional guarantee that each [defendant] may only be convicted upon proof beyond a reasonable doubt that he or she committed the crimes." 696 S.W.2d at 25. The court held that more than one reasonable hypothesis existed–that one defendant inflicted the injuries and that one remained silent, instead of both defendants inflicting the fatal abuse. Id.

We believe the present case is distinguishable from Hix. First, a jury does not need to determine unanimously whether a defendant is either directly liable or criminally responsible for the harm inflicted in a case not involving multiple occurrences of the offense. See State v. Lemacks, 996 S.W.2d 166, 170-71 (Tenn. 1999) (holding that for a D.U.I. occurring at a specific time, election between theories of direct liability and criminal responsibility was not required); Hodges, 7 S.W.3d at 208-09. Second, the jury was instructed on criminal responsibility for each Defendant, thereby including several theories of guilt. See Lemacks, 996 S.W.2d at 170 (stating that "criminal responsibility is not a separate, distinct crime" but rather "a theory by which the State may prove the defendant's guilt of the alleged offense . . . based upon the conduct of another person"). Third, we have already determined that the evidence reflects the two Defendants' breach of duty owed to their son, the victim. The evidence reflects that the almost-fatal injuries were inflicted while the two Defendants were the victim's sole care givers. The testimony reflects that they would have heard D.J. screaming from his liver laceration. However, the Defendants claimed D.J. was fine until he was placed into his car seat, when he choked. The Defendants' jury charge included the theory of criminal responsibility. The evidence in this case excludes every reasonable hypothesis other than the Defendants' guilt beyond a reasonable doubt of the offense of aggravated child abuse. They are not entitled to relief.

Jamila Nunn contends that "the fact that [her] explanation of the victim's injuries conflicted with the testimony of the doctors is not sufficient to prove her guilt beyond a reasonable doubt." The jury heard testimony about her statements to hospital staff and to law enforcement officers that D.J. had been fine, was being placed into his car seat, choked, and went limp. The jury also heard testimony from three doctors, all of whom had treated D.J., stating that D.J.'s injuries were caused by child abuse. Dr. Keegan stated that the trauma causing brain injuries had been inflicted shortly before D.J. was transported to the hospital on September 5, 2002. We presume 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). The Defendant is not entitled to relief.

Jamila Nunn also claims that the evidence shows some injuries were inflicted before D.J. spent two weeks in the Defendants' exclusive care. However, the evidence demonstrates that D.J.'s brain injuries were inflicted on September 5, 2002, while the child was in the care of both Defendants.

The Defendants also rely upon State v. Jimmy Lee Jones, No. 01C01-9511-CR-00367, Davidson County (Tenn. Crim. App. Feb. 12, 1997), app. denied (Tenn. Jan. 5, 1998) (concurring in results only). This case has no precedential value for any other case. See Tenn. Sup. Ct. R. 4(E).

Jamila Nunn asserts for the first time on appeal that the State was required to make an election of offenses to satisfy the "substantial bodily injury" element of aggravated child abuse. The State has chosen not to respond to this argument.

The courts of this state have repeatedly held that when evidence is presented of multiple offenses that would fit the allegations of the charge, the trial court must require the State to elect the

particular offense for which a conviction is sought and must instruct the jury as to the need for jury unanimity regarding the finding of the particular offense elected. See, e.g., State v. Brown, 762 S.W.2d 135, 137 (Tenn. 1998); State v. Walton, 958 S.W.2d 724, 727 (Tenn. 1997); State v. Shelton, 851 S.W.2d 134, 136 (Tenn. 1993); Burlison v. State, 501 S.W.2d 801, 804 (Tenn. 1973). "This election requirement serves several purposes":

> First, it ensures that a defendant is able to prepare for and make a defense for a specific charge. Second, election protects a defendant against double jeopardy by prohibiting retrial on the same specific charge. Third, it enables the trial court and the appellate courts to review the legal sufficiency of the evidence. The most important reason for the election requirement, however, is that it ensures that the jurors deliberate over and render a verdict on the same offense.

State v. Adams, 24 S.W.3d 289, 294 (Tenn. 2000). The requirements of election and a jury unanimity instruction exist even though the defendant has not requested them. See Burlison, 501 S.W.2d at 804. Moreover, failure to follow the procedures is considered to be of constitutional magnitude and will result in reversal of the conviction absent the error being harmless beyond a reasonable doubt. See Adams, 24 S.W.3d at 294; see, e.g., Shelton, 851 S.W.2d at 138.

"When the evidence does not establish that multiple offenses have been committed, however, the need to make an election never arises." Adams, 24 S.W.3d at 294 (discussing that no election is required for continuing offenses). Consequently, the trial court may properly submit to the jury multiple counts embodying different theories for committing a single offense. See State v. Lemacks, 996 S.W.2d 166, 171-72 (Tenn. 1999) (holding that no election was required by proving alternative theories of guilt for one offense of driving under the influence of an intoxicant); State v. Cribbs, 967 S.W.2d 773, 778 (Tenn. 1998) (holding that counts alleging premeditated and felony murder may be submitted to the jury for a single murder).

In the present case, the indictment charged that the Defendants committed the offense of child abuse "on or before September 5, 2002." The State presented evidence that the victim had older injuries occurring before that date as well as a new brain injury on that date.

We reject first Jamila Nunn's contention that the trial court erred in not requiring an election with respect to alternative theories of the offense because the proof did not show which parent was the abuser. Criminal responsibility is not a separate crime but is "solely a theory by which the State may prove the defendant's guilt of the alleged offense . . . based upon the conduct of another person." Lemacks, 996 S.W.2d at 170.

We turn to Jamila Nunn's argument that the State was required to elect which of the victim's injuries constituted the serious bodily injury element of the offense. The record does, indeed, reflect that D.J. was the victim of multiple injuries that satisfied the serious bodily injury element of aggravated child abuse and constituted separate offenses for the single charged offense. The State focused on the injuries to the child, rather than Jamila Nunn's neglect of those injuries, to constitute the offense. The record likewise reflects that the trial court never required an election of the State,

that the State recited these multiple injuries as proof of the offense in its closing argument, and that the trial court gave no unanimity instruction. This was error of constitutional magnitude for which Jamila Nunn is entitled to relief unless it was harmless beyond a reasonable doubt.

The evidence reflects proof beyond a reasonable doubt that Jamila Nunn was guilty of child abuse of D.J. for the brain injury occurring on September 5, 2002, whether as a principal actor or under a criminal responsibility theory. The proof of this injury and its permanent and devastating effects on the victim was overwhelming. Even if the jury concluded that D.J. suffered one or more of the older injuries while not in the exclusive care of the Defendants, there was no escaping the overwhelming proof that the head injury was of recent origin and was profound. We conclude, therefore, that the error was harmless beyond a reasonable doubt.

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

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JOSEPH M. TIPTON, PRESIDING JUDGE