

**IN THE SUPREME COURT OF MISSISSIPPI
NO. 97-DP-00028-SCT**

WILLIAM RAY HUGHES

v.

STATE OF MISSISSIPPI

DATE OF JUDGMENT:	11/20/96
TRIAL JUDGE:	HON. GEORGE C. CARLSON, JR.
COURT FROM WHICH APPEALED:	TATE COUNTY CIRCUIT COURT
ATTORNEYS FOR APPELLANT:	DAVID L. WALKER JOHN D. WATSON
ATTORNEY FOR APPELLEE:	OFFICE OF THE ATTORNEY GENERAL BY: LESLIE S. LEE
DISTRICT ATTORNEY:	ROBERT L. WILLIAMS
NATURE OF THE CASE:	CRIMINAL - DEATH PENALTY - DIRECT APPEAL
DISPOSITION:	AFFIRMED - 3/31/1999
MOTION FOR REHEARING FILED:	4/7/99
MANDATE ISSUED:	6/24/99

EN BANC.

WALLER, JUSTICE, FOR THE COURT:

STATEMENT OF THE CASE

¶1. Appellant William Ray Hughes was indicted by a Tate County grand jury by bill filed on May 1, 1996. The bill charged Hughes with murder in the course of kidnapping Ashley Galloway in violation of Miss. Code Ann. § 97-3-19(2)(e)(1994) on or about January 9, 1996. The bill also charged in Count II the crime of forcible rape in violation of Miss. Code Ann. § 97-3-65(2)(1994). Both counts included habitual offender charges based on Hughes' previous convictions for rape and fondling. On Hughes' motion, venue was changed due to publicity, with the jury drawn from Itawamba County and the trial conducted in the Second Judicial District of Panola County, Mississippi, at the Panola County Courthouse in Batesville, Mississippi. On November 19, 1996, the jury returned a verdict finding William Ray Hughes guilty of murdering Ashley Galloway after kidnapping and raping her. The jury affixed the punishment on Count I as death and on Count II as life imprisonment. Hughes now pursues direct appeal, contending that he was

denied a fair trial and raising the following numerous assignments of error.

I. Whether the Circuit Court erred in overruling the Appellant's motion to dismiss for lack of proper venue at the conclusion of the evidence and after the Appellee had initially rested its case in chief by ruling that Miss. Code Ann. §§ 99-11-3 and/or 99-11-19, as amended, are constitutional.

II. Whether the Circuit Court erred in denying the Appellant's motion to require the Appellee to give gender-neutral reasons for striking potential jurors and in striking prospective jurors number 238 and 263 for cause.

III. Whether the Circuit Court erred in overruling the Appellant's motions for a mistrial made during the trial including, but not limited to, the motion made (A) during the testimony of Stella Rowe concerning the drawings or sketches she was shown by a law enforcement officer, (B) during the closing argument of the assistant district attorney concerning the rare nature of the Appellant's genetic profile, (C) during Kathy Bolen's testimony that she cut the Appellant's hair after he got out of jail, and (D) following Julie Hughes Sanders' confrontation with her husband during a break in her testimony as a witness for Appellee.

IV. Whether the Circuit Court erred in refusing to permit the Appellant to interrogate Julie Hughes Sanders concerning her husband's criminal convictions.

V. Whether the Circuit Court erred in overruling the Appellant's motion for a mistrial based upon a violation of URCCC 9.04 and his motion to suppress the identification of a photograph of a pickup by Cindy Dunn.

VI. Whether the Circuit Court erred in denying the Appellant's motion to suppress physical evidence seized from the person of the Appellant by or at the request of Sammy Webb and Fernando Perez filed on August 13, 1996, and in denying the Appellant's motion in limine to suppress tests performed upon physical evidence seized from the person of the Appellant by or at the request of Sammy Webb and Fernando Perez filed on August 5, 1996.

VII. Whether the Circuit Court erred in overruling the Appellant's objections to the admission of photographs of the body of Galloway taken at the house on Simpson Road in Quitman County, MS, and his motion to preclude admission of gruesome and highly prejudicial color photographs and autopsy photographs of the deceased.

VIII. Whether the Circuit Court erred in allowing the Appellee to introduce into evidence census data for Mississippi.

IX. Whether the Circuit Court erred in overruling the Appellant's continuing objection on the testimony of Detective Patrick Davis concerning knives based upon a violation of Mississippi Rule of Evidence 702.

X. Whether the Circuit Court erred in overruling the Appellant's objection to the Assistant District Attorney interrogating Julie Hughes Sanders about blood during her redirect examination.

XI. Whether the Circuit Court erred in overruling the Appellant's objection to the Appellee eliciting testimony from Julie Hughes Sanders concerning the Appellant knocking a hole in the wall of their home.

XII. Whether the Trial Court erred in denying the Appellant's motion to exclude DNA evidence.

XIII. Whether the Trial Court erred in denying the Appellant's motion for introduction into evidence of instances of past sexual conduct by Galloway, and in granting the Appellee's motion in limine to exclude evidence of past sexual behavior of the victim, Galloway.

XIV. Whether the Trial Court erred in granting the Appellee's motion in limine to exclude evidence of prior drug use by the victim, Galloway.

XV. Whether the Trial Court erred in overruling the Appellant's objection to a relative showing Stella Rowe a photo from the newspaper.

XVI. Whether the Trial Court erred on overruling the Appellant's continuing objection to Dr. Stephen Hayne's testimony concerning the sexual assault on Galloway.

XVII. Whether the Trial Court erred in denying the Appellant's proposed Jury Instruction D-1 and in granting the Appellee's Jury Instructions S-1, S-2, S-3, S-4, S-5, and C-2-S.

XVIII. Whether the Trial Court erred in overruling the Appellant's objections to the Assistant District Attorney asking leading questions during the trial in violation of Mississippi Rule of Evidence 611(c).

XIX. Whether the verdict of the Jury on Counts One and Two of the Indictment is against the overwhelming weight of the evidence.

XX. Whether the Trial Court erred in overruling the Appellant's motion for a new trial.

XXI. Whether the cumulative effect of the Trial Court's errors denied Appellant a fundamentally fair trial as guaranteed by the Sixth and Fourteenth Amendments to the U.S. Constitution.

XXII. Whether the imposition of the death sentence is disproportionate in this case to other death sentences upheld by the court and is cruel and inhuman punishment in violation of the Eighth and Fourteenth Amendments to the U.S. Constitution and Article III, Section 28 of the Mississippi Constitution (1890).

FACTS AND PROCEDURAL HISTORY

¶2. On January 9, 1996, Ashley Galloway ("Galloway") was a 16-year-old junior at Senatobia High School who resided with her mother, Dianne Galloway, in Senatobia, Tate County, Mississippi. On that date, Galloway was awakened at 6:00 a.m. by her mother to get ready for school. After having some trouble getting her car started, Galloway departed for Senatobia High School. Galloway never made it to school that morning, nor was she at home when her mother returned from work that evening at 11:45 p.m. At that time Dianne Galloway began contacting friends and relatives trying to find her daughter, and ultimately called the Senatobia Police Department ("police"). Dianne Galloway provided police with a physical description of her daughter, as well as a description of the clothing she was wearing, her vehicle,

and her last known whereabouts.

¶3. The next day, January 10, 1996, the police began searching for Galloway. They canvassed the area, talked at length with Dianne Galloway and called on both the F.B.I. and the Mississippi Highway Safety Patrol for assistance. A rough chronology of the events leading up to Galloway's disappearance emerged.

¶4. Bo Simpson, Galloway's boss at the Sonic Drive Inn in Senatobia, testified that he saw Galloway's car at the corner of Camille and Highway 4 in Senatobia on the morning of January 9 at approximately 6:30 a.m.

¶5. Mrs. Linda Wade resided at 110 Marvin Street, a short distance from the intersection of Camille and Highway 4. Mrs. Wade was getting her children ready to walk to the bus stop for school the morning of January 9 when she heard a knock on the door at around 7:05 a.m. Galloway was at her front door and asked if Mrs. Wade's son, Patrick, was home. Galloway explained that her car had broken down and that she wanted Patrick to give her a boost so she could get to school. Mrs. Wade told Galloway that Patrick had already left home and Galloway walked back towards her car.

¶6. Chad Martin resided at 112 Marvin Street and was also getting his son ready for school that morning around 7:30 a.m. While watching out his window for the school bus, Mr. Martin saw Galloway walking southbound on Marvin street toward Saint Paul. As Galloway neared the corner, a small black pickup turned northbound on Marvin and passed by her. The truck then stopped and Galloway turned around, spoke with the driver and got in. The truck headed north up Marvin Street toward Strayhorn Street.

¶7. Mrs. Cindy Dunn also saw Galloway the morning of January 9. First, as Mrs. Dunn left to take her children to school, she saw Galloway cutting across her neighbors' yard onto Marvin Street. Mrs. Dunn testified that this was at approximately 7:30 a.m. Then, as she returned from taking her kids to school, Mrs. Dunn saw Galloway again, bent over and talking to someone in a small black pickup truck. Mrs. Dunn testified that the person in the truck was a white male with a dark or tan complexion.

¶8. On January 22, 1996, thirteen (13) days after her disappearance, Galloway's body was found by children gathering firewood from an abandoned house in Quitman County. Lee Moore, an adult who accompanied the children, called the authorities from a nearby house. Moore subsequently showed the authorities the body under the floor of the abandoned house. The F.B.I. extracted the body and turned it over to the Quitman County coroner.

¶9. An autopsy of Galloway's body was performed on January 23, 1996, by Dr. Stephen Hayne, a recognized forensic pathologist. Dr. Hayne determined that Galloway had been killed by manual strangulation and two stab wounds to the chest. He testified at trial that the wounds were consistent with what he would expect from a single-edge knife, approximately 5/8 of one inch in width. Galloway had also been raped and had multiple bruises and contusions clustered about her body. Finally, after she was dead, Galloway's chest had been partially burned over the stab wounds in her chest, obscuring the wounds on the surface. An RSVK-III Sexual Assault Kit was also prepared. Dr. Hayne was unable to come to a definite conclusion as to when Galloway died due to the seasonal frigid temperatures, but did state that he "did not think that she had lived long after her disappearance" and that it was unlikely that Galloway's death occurred more than 48 hours after she was last seen.

¶10. Mrs. Stella Rowe saw Galloway's picture in the paper on January 24, 1996, and contacted authorities.

She reported that she had seen Galloway in an isolated area of Quitman County on January 9, 1996, the day of her disappearance. Mrs. Rowe had been traveling on Simpson Road in Quitman County at around 12:50 p.m. when she came upon a small black pickup, oriented in the opposite direction, that was stopped and was blocking the road. She slowed and the pickup pulled out of her way, allowing her to pass. Mrs. Rowe testified that there was a slender, tall white male about age 35 who had reddish brown hair and discolored teeth driving the truck and was accompanied by a young female, whom she identified as Galloway. As Mrs. Rowe pulled away, the young female leaned out of the driver's side window, waving her arms. Mrs. Rowe continued on her way and did not think anything of the incident until she saw Galloway's picture in the paper, at which point she contacted the police. The area in which this chance meeting occurred is about two (2) miles from where Galloway's body was found.⁽¹⁾

¶11. The turning point of the investigation came on March 27, 1996, when the Tate County Sheriff's Department received a telephone call from Jimmy Lewallen informing them that he had found a class ring on his property which was inscribed with Galloway's name. Lewallen's property was on Old Crenshaw Road in Panola County. The Tate County Sheriff's Office then contacted Sammy Webb, an investigator from the district attorney's office, at approximately 11:00 a.m. At around 1:00 p.m., Investigator Webb and Fred Perez, an investigator with the Senatobia Police Department, met ~~Mr.~~ Lewallen at his property and he showed them where he had found the ring. A silver ring belonging to Galloway was found on the ground, and a common kitchen table or butter knife, grown over with grass, was also discovered. While examining the area near where the ring and knife were found, Investigator Webb noticed a mailbox bearing the name Eddie Hughes. Investigator Webb had previously worked on a child molestation case involving William Ray Hughes. Investigators Webb and Perez knocked on the door of the house, which was directly across from Lewallen's property and the mailbox, and determined that Julie Hughes Sanders lived there with her two children and the appellant, William Ray Hughes.⁽²⁾ Hughes was at work that day at Aluminum Extrusions in Senatobia, which is approximately 1.2 miles from where Galloway was last seen getting into the pickup truck.

¶12. That afternoon, at about 3:45 p.m., both investigators went to Aluminum Extrusions in Senatobia to talk with Hughes. Hughes agreed to follow them to the police station; and, when questioned as to whether he had missed any days in January, Hughes stated that he had not. He was also questioned as to his use of Mrs. Hughes Sanders' black Ford Ranger pickup truck. Hughes stated that his usual mode of transportation was his tan, full size pickup, which he was driving on January 9, the date of Galloway's disappearance. At the request of Investigator Webb, Hughes executed a consent form to allow blood, saliva and hair samples to be taken from him at the local hospital. These samples were subsequently delivered to GenTest laboratories for DNA testing. In addition, Hughes consented to a search of his house and vehicles.

¶13. Hughes was arrested on an unrelated parole violation charge and held. Investigator Webb obtained Hughes' work records and found that he had left work at 7:30 a.m. the morning of the 9th of January, and did not work on the 10th or 11th. He also discovered that one of Hughes' uniforms was missing. The police then interviewed and obtained a statement from Mrs. Hughes Sanders that Hughes had returned home at 6:45 p.m. the evening of Galloway's disappearance with blood on his pants. Mrs. Hughes Sanders also stated that Hughes had left for work that morning in her small black Ranger pickup truck. During the course of the search of Hughes' residence on April 8, a common kitchen table knife similar to the one found near Galloway's class ring was found in a dresser drawer in Hughes' bedroom.

¶14. DNA testing indicated Hughes could not be excluded as the source of the semen recovered from Galloway and his genetic characteristics had a probability of 1: 86,000 of randomly occurring in the general population. Hughes was indicted for the rape and murder of Galloway. After seeing a picture of Hughes on television following his arrest, Mrs. Rowe again contacted the police, stating that the man identified as Hughes on television was the man she had seen in the truck with the young girl on January 9, 1996.

¶15. During the trial the State built a strong circumstantial case against Hughes by piecing together testimony of various witnesses, the identification and location of items of physical evidence and the DNA evidence. The State sought to prove that Hughes had left work early on the morning of January 9th and was driving the small black truck. It offered evidence showing that Hughes had lied about his absence from work, had obtained a haircut after Galloway's disappearance and, on one occasion, had been to the abandoned house where her body was found to scavenge supplies with his younger brother.

¶16. Hughes' defense was mistaken identity. Hughes testified that he left work because of a queasy stomach on the 9th at about 7:30 a.m. driving a tan pickup truck. He ran out of gas and was walking when a person in a light blue pickup truck picked him up. He made it home around 10:30 a.m. He woke Mrs. Hughes Sanders, who prepared some soup for him. He subsequently fell asleep and did not wake up until 4:00 p.m. Hughes called Sue Greenwood who testified that she had seen Galloway on January 11th at her store at Ingram's Mill, which is about 20 to 25 minutes away from Senatobia.

DISCUSSION

¶17. This Court has held:

The penalty of death differs from all other forms of criminal punishment, not in degree but in kind. It is unique in its total irrevocability. It is unique in its rejection of rehabilitation of the convict as a basic purpose of criminal justice. And it is unique, finally, in its absolute renunciation of all that is embodied in our concept of humanity.

Furman v. Georgia, 408 U.S. 238, 306 (1972)(Stewart, J., concurring)

¶18. This Court has recognized the force of Justice Stewart's words by according a heightened standard of review in capital cases. *Williams v. State*, 445 So. 2d 798, 810-11 (Miss. 1984); *Laney v. State*, 421 So. 2d 1216, 1217 (Miss. 1982); *Irving v. State*, 361 So. 2d 1360, 1363 (Miss. 1978). With this heightened standard close in mind, Hughes' assignments of error will be addressed in the order assigned by Hughes.

I. Whether the Circuit Court erred in overruling the Appellant's motion to dismiss for lack of proper venue at the conclusion of the evidence and after the Appellee had initially rested its case in chief by ruling that Miss. Code Ann. §§ 99-11-3 and/or 99-11-19, as amended, are constitutional.

¶19. Hughes contends that the murder took place in Quitman County and that the only evidence of events occurring in Tate County was the evidence that Galloway got into the small black pickup truck. Hughes thus contends that venue was improper under Miss. Code Ann. § 99-11-19 (1994). Additionally, Hughes contends in the alternative, that if venue was proper under § 99-11-19, then that statute is unconstitutional as it violates Article 3, Section 26 of the Constitution of the State of Mississippi. Hughes' arguments are without merit.

¶20. While the ultimate burden of proving venue that rests upon the State is beyond a reasonable doubt, this is a standard of proof before the jury, not the trial judge. *State v. Fabian*, 263 So. 2d 773, 775 (Miss. 1972). Here, the State put on numerous witnesses to demonstrate that Galloway was searching for a way to get to school because her car had broken down in Tate County. The State's witnesses all testified that Galloway was seen getting into a small black pickup truck on Marvin Street the morning of January 9, 1996, in Tate County. Although there is no direct proof that Galloway and Hughes knew each other, Galloway worked at the Sonic Drive Inn in Senatobia for three months prior to her disappearance, the same establishment frequented by Hughes and his family when they went out to eat. It certainly could be inferred from the circumstances that she got in the truck with Hughes because his face was somewhat familiar when he offered her help. The jury could well infer, to the exclusion of any other theory, that the kidnapping began at this point, in Tate County. Simply because Hughes offered another possible theory does not vitiate the jury's ultimate finding that venue was indeed proper, nor does it impugn the trial judge's finding that there was enough evidence presented that a rational jury could find beyond a reasonable doubt that the kidnapping did in fact begin when Galloway was lured into a pickup truck in Tate County, meaning under § 97-3-53 the crime could easily have begun in Tate County. Thus, under Miss. Code Ann. § 99-11-19(1994), the State was well within bounds in electing Tate County as the venue in which to prosecute the crime.

¶21. Hughes' second contention that § 99-11-19 is unconstitutional is answered completely by this Court's decision in *Aldridge v. State*, 232 Miss. 368, 376-77, 99 So. 2d 456, 460 (1958). Under familiar principles of *stare decisis*, we decline to take this issue up again.

II. Whether the Circuit Court erred in denying the Appellant's motion to require the Appellee to give gender-neutral reasons for striking potential jurors and in striking prospective jurors number 238 [Jennifer Sheffield] and 263 [Shirley Bethay] for cause.⁽³⁾

¶22. Hughes actually raises two issues in Assignment of Error II. First, Hughes contends that the trial court erred when it denied his motion to require the State to give gender neutral reasons for exercising its peremptory challenges. Second, Hughes avers that the trial court erred in permitting jurors Jennifer Sheffield and Shirley Bethay to be struck for cause. Neither issue has merit.

The Challenges for Cause

¶23. Hughes contends that Jennifer Sheffield and Shirley Bethay were improperly struck for cause because of their opposition to the death penalty.

¶24. Jurors may be excused for cause when their views on the death penalty "would 'prevent or substantially impair the performance of his duties as a juror in accordance with his instructions and his oath.'" *Gray v. Mississippi*, 481 U.S. 648, 658 (1987)(quoting *Adams v. Texas*, 448 U.S. 38, 45 (1980)); *Stringer v. State*, 500 So. 2d 928, 943 (Miss. 1986)(quoting *Wainwright v. Witt*, 469 U.S. 412, 424 (1985));

¶25. Turning to the record in the instant case, Jennifer Sheffield and Shirley Bethay vacillated some in the extensive questioning done by the State, the defense and the court, but in the final analysis, the record supports that each was properly excused for cause:

Q. [BY THE COURT] Do you feel like I've made a fair assessment? When it comes to considering

all three options, considering the death penalty and life without parole and life, you would not be able to fairly consider realistically all three options?

A. [JENNIFER SHEFFIELD] No, I wouldn't.

* * *

Q. [BY THE COURT] Then on the other end of the spectrum those who are saying, I can't consider the death penalty, I can consider life, but I can't consider the death penalty, then, obviously, those should not be put in that position. We just want jurors who can fairly weigh out all three options. And I just need to know if you can tell us where you stand.

A. [SHIRLEY BETHAY] Life without parole, that's as far as I can go, but the death penalty I could not.

¶26. Although there was some ambiguity at points in the questioning, in the end that ambiguity was squarely in the interpretational bailiwick of the trial judge, who observed the demeanor of the potential jurors. "[U]nder the standard of *Wainwright* where a juror's position is not 'unmistakably clear' the decision of whether or not to excuse the juror is left to the trial judge's discretion." *Stringer*, 500 So. 2d at 943.

The Peremptory Challenges

¶27. First, it should be noted that the State did, in fact, give gender neutral reasons for its peremptory strikes in this case, contrary to the assertions in Hughes' assignment of error. Under federal law, the Supreme Court has explained that once reasons are offered by the proponent, the issue of whether a *prima facie* case of discrimination has been developed is moot. *Hernandez v. New York*, 500 U.S. 352, 359 (1991).

¶28. This Court, however, has previously explicitly held that the trial court has no authority to initiate a *Batson* hearing without a *prima facie* showing of discrimination. Thus, it would seem appropriate to examine the *prima facie* case element prior to examining the reasons proffered by the State. In *Stewart v. State* this Court stated:

The prosecution in *Hernandez*, however, voluntarily defended its peremptory strikes "without any prompting or inquiry from the trial court." In the case at bar, the defense did not voluntarily explain the peremptory in issue. The trial court in fact made the defense prove it was not discriminating without there ever having been an inference of discrimination in the first place.

A trial judge does not have the authority to invoke a *Batson* hearing on his own initiative.

Stewart v. State, 662 So. 2d 552, 559 (Miss. 1995)(quoting *Hernandez*, 500 U.S. at 358).

¶29. Here the judge explicitly did what *Stewart* seems to proscribe in that he required gender neutral reasons after determining that there was no *prima facie* case. Unlike in *Stewart*, however, the judge here specifically ruled on the *prima facie* element and made an adequate record. While this is not accepted practice, Hughes' claims are without merit.

Batson

¶30. Traditionally, a *prima facie* showing of discrimination requires that the opponent of the strike show,

1. That he is a member of a "cognizable racial group";
2. That the [proponent] has exercised peremptory challenges toward the elimination of veniremen of his race; and
3. That facts and circumstances raised an inference that the [proponent] used his peremptory challenges for the purpose of striking minorities.

Batson v. Kentucky, 476 U.S. 79, 96 (1986)(citing ***Castaneda v. Partida***, 430 U.S. 482, 494 (1977)).

¶31. Examining the facts surrounding the State's peremptory strikes in the current case, it is clear that no *prima facie* case of gender discrimination was made. The State exercised seven strikes on the first panel tendered, five against women and two against males, leaving a prospective jury of six males and six females. Hughes objected on ***Batson*** grounds, and the trial court found no *prima facie* case, based on the number of females accepted.

¶32. On its next pass the State struck two women and accepted six, tendering a jury of eight women and four men. Hughes again objected on ***Batson*** grounds. Again, the trial court reviewed the strikes and found no *prima facie* case.

¶33. After Hughes' strikes, the State tendered three more jurors, striking one female and accepting two. Hughes again objected on ***Batson*** grounds, and the trial court found no *prima facie* case.

¶34. At this point, by stipulation, one juror was allowed to leave the panel and Hughes struck an additional juror, leaving the State to tender two more jurors. The State struck two females and accepted two females, and leaving a final jury composed of eight women and four men. The trial court stated:

[T]he 12 in the box now, which will be the trial jury, are made up of eight females and four males. And, again, based on the totality of the record made yesterday and today, even though the State has exercised most of its challenges on females, still from the record there's been no *prima facie* showing of intentional discrimination on the basis of gender by the State, no systematic exclusion of females, based on the record, and, again, keeping in mind the overall percentage of the panel under consideration at the beginning of today, that being 60.7 percent female and 39.3 percent male.

¶35. Finally, the State struck one female alternate, tendering four, two males and two females. Hughes renewed his ***Batson*** objection and the court again found no *prima facie* case.

¶36. Here, as the trial judge did in ***Simon v. State***, the trial court evaluated not only the sheer number of strikes against females, but their context as well. ***Simon v. State***, 679 So. 2d 617, 622 (Miss. 1996). ***Simon*** makes very clear that "the numbers of which gender were excused versus the numbers of the two sexes which were seated on the panel, is the type of analysis a trial court conducts in order to determine whether a *prima facie* inference of discrimination has been made." ***Id.*** at 621.

¶37. Furthermore, the trial judge indisputably sits in a better position than this Court when evaluating the credibility of the striking party, and thus ascertaining whether a preponderance of strikes against a single race or gender is merely circumstance or invidious discrimination. ***Benson v. State***, 551 So. 2d 188, 192

(Miss. 1989); *Carr v. State*, 655 So. 2d 824, 844 (Miss. 1995); *Chisolm v. State*, 529 So. 2d 635, 639 (Miss. 1988). In sum, there was simply no *prima facie* case of gender discrimination made in this case. The trial judge below nevertheless required the State to provide gender neutral reasons for their strikes, apparently "just in case."

¶38. Examining the State's proffered reasons, it is very clear that no overt discrimination was involved in the selection of Hughes' jury. The Supreme Court has recently stated that for *Batson* step II purposes, any reason which does not facially violate the Constitution is sufficient. *Purkett v. Elem*, 514 U.S. 765, 768 (1995).

¶39. The State gave the following reasons for its strikes: S-1 was a paralegal ; S-2 "That's the gal that wanted to know if you were going to let the jury go shopping in Memphis. She is loud. She giggles. And her attitude that she displayed in open court made her undesirable to us. . . . she was loud, you could hear her probably in Tupelo she was so loud. I just didn't like her."; S-3 age and education; S-4 "We struck her because of her views that she expressed in open court on the death penalty"; S-7 age and occupation -- a counselor for troubled girls ; S-8 "This lady is a widow with an eleven-year-old son. She has a seventh grade education according to the questionnaire."; S-9 "Judge, this was a second grade teacher that sat right back here and expressed concern about being away from her school children for the length of time the trial would take. . . . Her age and apparent concern about being away from her second grade class . . . are my reasons."; S-10 small children "But in any event we had considered taking her until it was revealed that one of these children had this spinal problem. And because of that, we thought she would be preoccupied. In addition, this lady's husband was shot by his ex-wife's boyfriend, and he was acquitted, and we were informed that she had sort of a bad taste in her mouth about the justice system"; S-11 "We struck her, Judge, for her views on capital punishment that she expressed in open court and also in the *Witherspoon* examination."; S-12 "Our information was that Ms. Graham is related to a victim in a pending capital murder case here in Itawamba County, and law enforcement feels that at this time because of that she is unstable."; Alternate 1 "Our information, again coming from law enforcement in this county, is that her parents as well as her are radical. I believe her mother was on the grand jury . . . and they had some problems."

¶40. Clearly, none of these reasons *per se* violates *Batson*, and so the analysis moves to step three in order to determine whether, under the totality of the circumstances, the reasons offered by the State were mere pretexts for unlawful discrimination. Here they clearly were not. The determination of pretext, like the other *Batson* elements, hinges to a large extent on credibility. *Purkett*, 514 U.S. at 769. Furthermore, as this Court stated in *Mack v. State*, the relative strength of the *prima facie* case will color to a degree the determination of pretext. *Mack v. State*, 650 So. 2d 1289, 1298 (Miss. 1994).

¶41. Finally, this Court has in various cases found all of the reasons offered by the State in this case to be non-pretextual race neutral reasons. See e.g., *Davis v. State*, 660 So. 2d 1228 (1995)(employment); *Johnson v. State*, 529 So. 2d 577, 585 (Miss. 1987)(demeanor); *Lockett v. State*, 517 So. 2d 1346, 1351-52 (Miss. 1987)(demeanor, hostility, respect for court, age, employment status).

¶42. Hughes failed to demonstrate a *prima facie* case; and, further, the prosecutor offered sufficiently neutral reasons to overcome any inference.

III. Whether the Circuit Court erred in overruling the Appellant's motions for a mistrial made during the trial including, but not limited to, the motion made (A) during the testimony of Stella

Rowe concerning the drawings or sketches she was shown by a law enforcement officer, (B) during the closing argument of the assistant district attorney concerning the rare nature of the Appellant's genetic profile, (C) during Kathy Bolen's testimony that she cut the Appellant's hair after he got out of jail, and (D) following Julie Hughes Sanders' confrontation with her husband during a break in her testimony as a witness for Appellee.

III (A) - Stella Rowe

Undisclosed Investigatory Pictures

¶43. Hughes first contends that the trial court erred when it denied his motion for a mistrial after it was revealed on cross-examination that Mrs. Stella Rowe, a prosecution witness, had been shown what she recalled as two drawings by the police, which Hughes contends are undisclosed exculpatory evidence. Master Sergeant Sammy Aldridge of the Mississippi Highway Patrol was identified as being the individual who showed Mrs. Rowe the pictures, and he was brought back to testify. He still had the pictures in his possession. Master Sergeant Aldridge testified that he went to Mrs. Rowe's house on January 24, 1996, and showed her a computer composite prepared done by the Senatobia Police Department and four to five faxed copies of drivers licenses, some of which came from the files of the Department of Public Safety. These were potential suspects. The computer composite was made of a white male seen standing by Galloway's car later in the morning after her disappearance and was later identified as the wrecker driver called by police to move Galloway's car. Mrs. Rowe did not identify any of these individuals as the white male she saw in the truck.⁽⁴⁾ Hughes argued to the trial court, and now pursues on appeal, that the State's failure to turn the composite and faxes over to the defense violated U.R.C.C P. 9.04. Hughes also frames this alleged discovery violation in the context of a more general *Brady* claim, alleging that a substantial deprivation of his constitutional right to a fair trial was hampered by lack of disclosure of these pictures. This sub-issue is completely without merit.

¶44. *Brady v. Maryland* stands for the general and reasonably comprehensible proposition that the prosecution must disclose exculpatory evidence to a criminal defendant.

We now hold that the suppression by the prosecution of evidence favorable to an accused upon request violates due process where the evidence is material either to guilt or to punishment, irrespective of the good faith or bad faith of the prosecution.

Brady v. Maryland, 373 U.S. 83, 87 (1963).

¶45. Obviously, *Brady*, by its own terms, only applies to favorable evidence, i.e. evidence which is either exculpatory, or which tends to impeach the State's case. Here, it is not entirely clear that the evidence of which Hughes complains was favorable.

¶46. The exchange during cross-examination surrounding the drawings shown to Mrs. Rowe is as follows:

Q: [COUNSEL FOR HUGHES]: Did the police show you any photographs of William Hughes when they were interviewing you?

A: STELLA ROWE: They showed me some drawings, but that was all I saw.

Q: Have you seen any photographs of William Hughes other than what you said you saw on the TV?

A: Not until I saw him on TV.

...

Q. Do you recall who showed you these drawings, Mrs. Rowe?

A: I am not really sure which one showed me some drawings.

...

Q. How many drawings did they show you?

A: I saw two.

Q: What did these drawings consist of?

A: I guess someone had drawn the pictures. They weren't photographs. One was of a real heavy-faced person maybe with a beard, and the other one I couldn't tell anything from either one of them that, you know, I could connect with anything.

¶47. When the defense subsequently moved for a mistrial, contending that the State had failed to turn over exculpatory evidence, it advanced no theory as to why this material is either exculpatory or probative to impeaching the State's case; nor does the argument on the motion aid in determining exactly how this material could be favorable for Hughes. Hughes' attorney stated,

Without the drawings, that could be exculpatory material. It affects our cross-examination rights as guaranteed by the constitution. In other words, if we had these drawings, we could have handed them to Mrs. Rowe on cross-examination a short time ago and said, is this Mr. Hughes? Is this not Mr. Hughes? Is this some of his features? Is this not some of his features? Were you able to identify this drawing when the police officer handed it to you, yes or no? Things of that nature.

¶48. Even assuming, *arguendo*, that the evidence is "favorable" and thus potentially covered by *Brady*, there is still no indication whatsoever that the drawings shown to Mrs. Rowe were *material* omissions. In *Kyles v. Whitley* the Supreme Court made it quite clear that not every failure of the prosecution to turn over favorable evidence rises to constitutional error.

Bagley's touchstone of materiality is a "reasonable probability" of a different result, and the adjective is important. The question is not whether the defendant would more likely than not have received a different verdict with the evidence, but whether in its absence he received a fair trial, understood as a trial resulting in a verdict worthy of confidence. A "reasonable probability" of a different result is accordingly shown when the Government's evidentiary suppression "undermines confidence in the outcome of the trial."...

Kyles v. Whitley, 514 U.S. 419, 434 (1995) (quoting *United States v. Bagley*, 473 U.S. 667, 678 (1985)).

¶49. Here, the prosecution sought out and delivered the pictures to the defendant, and Hughes was given time to assimilate these pictures and formulate whatever response he felt was necessary. Hughes was permitted to question MSG Aldridge concerning the composite and faxed copies of drivers licenses. Mrs.

Rowe was not discharged following her testimony. Hughes was completely free to recall her and cross-examine her at length with the aid of these allegedly exculpatory pictures. It is important to note that the prosecutor was also unaware of the existence of these pictures until discovered by Hughes during the cross-examination of Mrs. Rowe. These pictures were no more or no less than the "usual suspects" law enforcement use when they are trying to come up with a lead in an unsolved case. This case is thus a far cry from *Brady* and its progeny in which the evidence was actively suppressed until its discovery after the trial.

¶50. Hughes' second contention that the failure to disclose these drawings violated state discovery laws is also without merit. Only paragraphs 5 and 6 of Uniform Circuit and County Court Practice Rule (U.R.C.C.P.) 9.04A would be relevant for consideration, as follows:

5. Any physical evidence and photographs relevant to the case or which may be offered in evidence; and
6. Any exculpatory material concerning the defendant.

U.R.C.C.P. 9.04A.

¶51. The seminal case interpreting this rule is *Box v. State*, 437 So. 2d 19 (Miss. 1983). In that case the State had neglected to tell the defendant the identity of a key State's witness. *Box*, 437 So. 2d at 20. This Court, emphasizing the fundamental nature of the defendant's interest, reversed and held that "This State is committed to the proposition that these conflicting interests are best accommodated and that justice is more nearly achieved when, well in advance of trial, each side has reasonable access to the evidence of the other." *Id.* at 21.

¶52. *Box* and U.R.C.C.P. 9.04 have been applied to a variety of evidence, but never to a computer composite and faxed pictures of persons which were *not* identified by a witness. U.R.C.C.P. 9.04 is obviously much broader than *Brady*, but the definition of exculpatory in U.R.C.C.P. 9.04 (6) is presumably on par with the federal definition of exculpatory under *Brady* and its progeny. Therefore, there was no discovery violation under *Box* and U.R.C.C.P. 9.04 because the pictures were not exculpatory.

¶53. Next, we are concerned with the issue of unfair surprise caused by the failure to timely disclose the pictures.

¶54. This Court has noted that U.R.C.C.P. 9.04 protects the defendant from unfair surprise caused by the unexpected introduction of evidence not disclosed by the State. "The essential purpose of Rule 4.06 [now 9.04] is the elimination of trial by ambush and surprise. Disclosure is the hallmark of fairness and the quest for justice that should be the goal of the criminal justice system." *Robinson v. State*, 508 So. 2d 1067, 1070 (Miss. 1987). However, the State never intended to offer the pictures into evidence. So we are back to the issue of failure to disclose exculpatory evidence. However, the lower court did all that was possible to accommodate Hughes, and this violation falls short of what would justify a mistrial.

¶55. In conclusion, the pictures shown to Mrs. Rowe were not exculpatory, nor did the trial judge err in refusing to grant a mistrial based on the State's failure to disclose the pictures. Issue III (A) is without merit.

III (B) The Prosecutor's Closing Argument

¶56. Hughes argues that the prosecutor improperly commented on the evidence when he stated during

closing arguments that Hughes' DNA profile was rare.

¶57. The test for determining whether a prosecutor's comment is improper is found in *Davis v. State*:

[T]he test to determine whether an improper argument by a prosecutor requires reversal is whether the natural and probable effect of the improper argument of the prosecuting attorney is to create an unjust prejudice against the accused as to result in a decision influenced by the prejudice so created.

Davis v. State, 530 So. 2d 694, 701 (Miss.1988)(citing *Craft v. State*, 226 Miss. 426, 84 So. 2d 531 (1956)).

¶58. Furthermore, the allegedly improper statement must be evaluated in light of the facts and circumstances of the case, as this Court made clear in *Davis v. State*:

This Court has traditionally given attorneys wide latitude in closing arguments. Any allegedly improper prosecutorial comment must be evaluated in context, taking into consideration the circumstances of the case when deciding the comment's propriety.

Davis v. State, 660 So. 2d 1228, 1248 (Miss. 1995); (citing *Ahmad v. State*, 603 So. 2d 843, 846 (Miss. 1992)).

¶59. Thus the question is whether the prosecutor's statement that Hughes possessed a "rare" DNA profile prejudiced Mr. Hughes to such an extent that the jury's decision was improperly influenced. Here, the following exchange took place:

[STATE]: That is one of the important things that you heard about in this case. What Ann Montgomery told you basically is that William Ray Hughes has a genetic profile that is so rare that it appears in only about one out of 86,000 people, okay?

[COUNSEL FOR HUGHES]: I object, Your Honor. Ann Montgomery never used the word rare. Mrs. Lamar is misstating her testimony, and therefore I move for a mistrial.

THE COURT: It will be overruled. The jury will make the decision based on the evidence as presented, as they recall.

[STATE] (continuing) What she told you was that the sperm found in Ashley Galloway was of a genetic profile so rare that it only appeared in 86,000 people, one in every 86,000 people, okay, and William Ray Hughes is one of those people that share that profile, okay?

¶60. As with most words in the English language, "rare" is susceptible to a variance of meaning, but it seems obvious that one common meaning of the word "rare" would be 1 in 86,000. A jury is easily capable of deciding for itself whether the prosecutor's characterization of Mrs. Montgomery's testimony fits their personal notion of "rare" and this is essentially what the trial judge ruled.

¶61. Furthermore, the comment in the current case was a comment on the evidence, and not a personal attack on or vilification of Hughes. *Ahmad v. State*, 603 So. 2d at 846; *Craft v. State*, 226 Miss. at 434, 84 So. 2d at 55. In conclusion, the trial judge was correct in determining that the State's argument was not improper. Issue III(B) is without merit.

III (C) Kathy Bolen's Comment

¶62. During Hughes' cross-examination of Kathy Bolen, Mrs. Bolen, in attempting to respond to a question posed by the defense, stated that Hughes had previously been in jail:

Q. [COUNSEL FOR HUGHES]: How Many times have you cut William's hair?

A. KATHY BOLEN [Witness]: Approximately three times.

Q. Do you know when the first time was when you cut his hair?

A. It was a short time after he got out of jail.

Q. I mean just the dates. Do you know the --

A. I don't know the date. No, I don't.

Defense Counsel: I object and move for a mistrial, Your Honor.

The Court: Overruled. Motion denied.

¶63. Hughes argues that this warrants a mistrial.

¶64. This Court was faced with a similar situation occurring during the State's direct in *Watson v. State*:

Q. [STATE]: Have you had any contact with [Watson] lately?

A. DEBRA JEAN WILDER [Witness]: He's come by the office where I work, but we didn't really talk. He was just telling me he was out of jail....

Watson v. State, 521 So. 2d 1290, 1293 (Miss. 1988). This Court noted that "[t]he answer of Wilder was not responsive to the question and there was no purposeful effort or intent on the part of the State to elicit such information from the witness." *Id.* at 1294.

¶65. The better remedy for an improper comment or question that has been put before the jury is for the court to admonish the jury not to consider the improper statement. *Criddle v. State*, 633 So. 2d 1047, 1048 (Miss. 1994)(citing *Davis v. State*, 530 So. 2d 694, 697 (Miss. 1988)); *Vickery v. State*, 535 So. 2d 1371, 1380 (Miss. 1988) *Forrest v. State*, 352 So. 2d 1328, 1331 (Miss. 1977); *Myrick v. State*, 290 So. 2d 259 (Miss. 1974); *Herron v. State*, 287 So. 2d 759 (Miss. 1974). . It is only when the comment is so prejudicial that the curative instruction would not suffice to ensure the defendant a fair trial that reversal is warranted. *Criddle*, 633 So. 2d at 1048 (citing *Reynolds v. State*, 585 So. 2d 753, 755 (Miss. 1991); *Roundtree v. State*, 568 So. 2d 1173, 1177-1178 (Miss. 1990); *Bradley v. State*, 562 So. 2d 1276, 1282 (Miss. 1990); *Smith v. State*, 530 So. 2d 155, 161 (Miss. 1988); *Barlow v. State*, 233 So. 2d 829, 832 (Miss. 1970)). This rule is but a specific application of the general presumption that juries will follow instructions which are given to them and do not rely on the good or bad faith of the prosecutor. *Chase v. State*, 645 So. 2d 829, 853 (Miss. 1994). See also *Greer v. Miller*, 483 U.S. 756, 766 (1987); *Richardson v. Marsh*, 481 U.S. 200, 208 (1987); *Bruton v. United States*, 391 U.S. 123, 136 (1968).

¶66. In response to the objection and motion for mistrial made by Hughes, the trial court gave the jury a

cautionary instruction concerning Mrs. Bolen's testimony. Jury instruction C-13 read as follows:

Members of the jury, during the cross examination of Kathy Bolen by the Defendant, through counsel, Ms. Bolen testified in response to a defense question that she had cut the Defendant's hair one time after he got out of jail. However, the Court cautions you that you cannot and must not in any way consider the fact that the Defendant, William Ray Hughes, may have been in jail in the past on unrelated charges as evidence in this concerning the issue of whether or not William Ray Hughes is guilty of the charges for which he is on trial.

¶67. In conclusion, while the response was improper and inadmissible, it was also unexpected and was cured the best way possible under the circumstances then existing with the judge's instruction.

III (D) The Recess Argument

¶68. Hughes contends that the trial court also erred when it failed to grant a mistrial after it was revealed that Mrs. Hughes Sanders' husband had communicated with her during a court recess. While such contact was highly improper, it does not constitute grounds for a mistrial. It is necessary to examine Mrs. Hughes Sanders' testimony in some detail to understand why this is so.

¶69. Mrs. Hughes Sanders was living with Hughes during the time of the crime and subsequent investigation. Mrs. Hughes Sanders one time told the investigators that Hughes had returned home early on January 9th (the date of Galloway's disappearance) and the two of them had gone to Sam's Town Casino. Later in the investigation, after checking her casino records the police confronted her with the falsity of this statement. Mrs. Hughes Sanders changed her story to reflect that Hughes had come home at around 6:45 p.m. the night of the murder, that he had driven the small black Ranger pickup truck to work that morning, and that Hughes had blood on his pants when he came home. She further stated that he had taken a bath and left, not returning until 11:00 p.m. This information was compiled into a written statement ("prior statement").

¶70. Mrs. Hughes Sanders testimony at trial differed considerably from her prior statement. Her vacillation resulted in a running attempt at impeachment during which Mrs. Hughes Sanders gave differing versions of what happened on and following January 9. For instance, Mrs. Hughes Sanders attempted to recant her prior statement that Hughes was driving the black truck on the 9th. Upon being confronted with the prior statement, she once again averred that Hughes drove the black truck on the 9th. When the prosecutor asked Mrs. Hughes Sanders what time Hughes had returned from work on the 9th, Mrs. Hughes Sanders stated that it was 10:30 a.m. and not 6:45 p.m. Again the prosecutor impeached Mrs. Hughes Sanders with her prior statement. Mrs. Hughes Sanders maintained that Mr. Hughes had come home at 10:30 a.m. and that he was home all day until the two went to Wal-Mart around 3:00 p.m. Later, under questioning, she changed her story and stated that they had actually left around 2:30 p.m. and returned at 3:00 p.m., but that she and Mr. Hughes had otherwise been at home all day.

¶71. This running impeachment continued throughout Mrs. Hughes Sanders' direct examination. At the close of direct and after the jury was dismissed for the day, Hughes moved for a mistrial based on the fact that it was discovered that a confrontation of some sort had occurred between Mrs. Hughes Sanders and Mr. Sanders after a ten (10) minute break.

¶72. The trial judge denied the mistrial but, addressing the issue as a M.R.E. 615 violation, allowed a full blown cross-examination of Mrs. Hughes Sanders both prior to her leaving the stand and the next day

before the jury.

THE COURT: I'm satisfied with the appropriate remedy of this. The witness obviously talked with her husband during the break, and under Rule 615 of the Rules of Evidence and the case law interpreting that rule, the remedy here is certainly to allow, as the Supreme Court said, full cross-examination on this point.

¶73. During the examination by both the State and Hughes, Mrs. Hughes Sanders testified that she had indeed been confronted by her husband. During cross, Mrs. Hughes Sanders testified that:

Q. [COUNSEL FOR HUGHES]: You testified on direct yesterday and then we took a break; do you recall that?

A. JULIE HUGHES SANDERS [Witness]: Yes, sir.

Q. And during that break, did you have a confrontation with anyone?

A. With my husband.

Q. And that happened on two occasions during that break, did it not?

A. Yes, sir.

Q. And he got up in your face and had something to say to you, didn't he?

A. Yes, sir.

Q. And during that confrontation he actually made you cry, didn't he?

A. Yes, sir.

Q. And he got you upset, didn't he, during the break?

A. Yes, sir.

¶74. The State, on re-direct, elicited exactly what had been said:

Q. [STATE]: Julie, at the break when you had a conversation with your husband, what did your husband tell you?

A. JULIE HUGHES SANDERS [Witness]: He told me to tell the truth.

Q. Tell the truth.

A. Yes, ma'am

Q. Have you told anything that was -- let me rephrase that. Did you tell anything that was the truth yesterday?

A. Yes, ma'am

¶75. Hughes contends that this cross-examination was insufficient to alleviate the prejudice caused to him and that he was entitled to a mistrial.

¶76. This Court has not previously dealt at length with this issue, but it appears the trial judge was correct in treating the problem as a M.R.E. 615 violation. In *Lewis v. State* the victim's husband had spoken with certain witnesses about their testimony. *Lewis v. State*, 580 So. 2d 1279, 1286 (Miss. 1991). Lewis sought a mistrial and couched the error as a Rule 615 violation. *Lewis*, 580 So. 2d at 1286. The trial court judge ruled that since the husband was not a party, he was not subject to the rule. *Lewis* 580 So. 2d at 1286. This Court accepted the trial judge's denial of a mistrial, but noted:

The court observed that the witnesses were instructed not to talk to anyone about their testimony, but if they had talked to Mr. Carter about sitting at a table or not sitting at a table, such a fact, considering the nature of the case, did not have any major influence on the jury.

Again, other than citing Rule 615, the appellant fails to provide any support for this assignment of error. Mr. Carter's speaking to the jurors about his wife's testimony, however, violates the spirit of Rule 615. It should be made clear that not only are the parties and their attorneys prohibited from disclosing the testimony of other witnesses, but the court has ample authority to deal with strangers to the litigation who would interfere with the orderly administration of justice by knowingly violating the rule.

Here, the trial court finding that such wrongdoing as occurred was harmless is not clearly erroneous and will be credited. Without a showing of how Lewis was prejudiced, this assignment of error is without merit.

Lewis, 580 So. 2d at 1286-87 (citing U.R.C.C.P. 5.01).

¶77. In *Brown v. State*, the basic remedies for a Rule 615 violation were reiterated:

Once a witness has violated the rule, however, the remedy lies within the court's discretion. Remedies may include prospectively excluding the witness where prejudice will otherwise ensue; striking the witness's testimony where connivance gave rise to the testimony; striking the witness's testimony where the testimony gave rise to prejudice; *or, most appropriately, allowing the other party to subject the witness to a "full-bore cross-examination" on the facts of the rule violation.*

Brown v. State, 682 So. 2d 340, 349 (Miss. 1996)(quoting *Douglas v. State*, 525 So. 2d 1312, 1317 (Miss. 1988))(emphasis added).

¶78. The trial judge clearly considered several remedies when the confrontation was discovered, and determined that the best solution would be to allow full blown cross- examination on the issue. This determination is entitled to deference on appeal:

When violation of the sequestration rule is assigned as error on appeal, as is the case here, the question then becomes one of the scope of review of the appellate court. We note that the majority of federal appellate courts have stated the test thus: failure of a judge to order a mistrial or to exclude testimony will not justify reversal on appeal absent a showing of prejudice sufficient to constitute abuse of discretion.

Douglas, 525 So. 2d at 1318.

¶79. The critical fact here is that Mrs. Hughes Sanders was not a credible witness prior to the alleged coercion by her husband. The cross by Hughes and the questioning by the State on the confrontation with her husband hammered this fact home. The jury was thus fully apprized of the serious deficiencies in Mrs. Hughes Sanders' testimony. If anything, the exchange with her husband and its subsequent discovery presented the defense with an opportunity to further impeach the State's already battered witness. Furthermore, the jury was explicitly reminded of the potential influence Mr. Sanders may have had on Mrs. Hughes Sanders' testimony by the trial court judge, who instructed:

[BY THE COURT]

Members of the Jury, you will recall that it was revealed to you while Julie (Hughes) Sanders was on the witness stand that during a recess in the testimony of Ms. Sanders, she and her current husband allegedly had a confrontation about her testimony. As with all other witnesses, you may give the testimony of Ms. Sanders what weight and credit you deem proper under the circumstances, and in judging the credibility of her testimony, you may consider whether or not you feel her testimony was affected or influenced by the fact that she allegedly had this confrontation/argument with her husband during a recess in her testimony.

¶80. In conclusion, the trial judge was correct to deny Hughes a mistrial on the grounds of the improper contact. The trial judge correctly treated the issue as a Rule 615 violation and allowed cross-examination in the presence of the jury on the improper contact. This was sufficient to protect Hughes from prejudice.

IV. Whether the Circuit Court erred in refusing to permit the Appellant to interrogate Julie Hughes Sanders concerning her husband's criminal convictions.

¶81. Hughes next contends that it was error to bar him from questioning Mrs. Hughes Sanders on her husband's prior criminal convictions. During the cross engendered by the confrontation discussed in Issue III(D) above, Hughes sought to demonstrate that Mr. Sanders had a prior criminal record. The trial judge disallowed this on the grounds of relevancy.

¶82. Hughes is technically barred from arguing this issue on appeal because Hughes did not make a proffer before the trial court. *Gates v. State*, 484 So. 2d 1002, 1008 (Miss. 1986). Obviously, a past criminal conviction for battery would be much closer to being relevant than a prior drug offense under the facts of this case, but this can not be ascertained because Hughes did not make a proffer. Even ignoring the bar, however, Hughes' contention is without merit.

¶83. Matters concerning the relevance and admissibility of evidence in general are within the sound discretion of the trial court judge. *Fisher v. State*, 690 So. 2d 268, 274 (Miss. 1996)(citing *Shearer v. State*, 423 So. 2d 824, 826 (Miss. 1982)); *Coleman v. State*, 697 So. 2d 777, 784 (Miss. 1997) (citations omitted); *Page v. State*, 295 So. 2d 279, 282 (Miss. 1974)(citing *Clanton v. State*, 279 So. 2d 599 (Miss. 1973)).

¶84. Here the issue was whether Mrs. Hughes Sanders had been, in fact, improperly influenced by her husband, not her husband's capacity for threatening her. The trial judge did not abuse his discretion in determining that Mr. Sanders' criminal past, whatever it may have been, was irrelevant.

V. Whether the Circuit Court erred in overruling the Appellant's motion for a mistrial based upon a violation of URCCC 9.04 and his motion to suppress the identification of a photograph of a pickup by Cindy Dunn.

¶85. Hughes contends that the trial court erred when it failed to grant a mistrial after the State introduced a photograph of a pickup truck to witness Cindy Dunn which was not disclosed to Hughes. Furthermore, Hughes contends that the trial court should have granted his motion to suppress the identification of the pickup truck as unduly suggestive.

¶86. The photo in question was presented to Cindy Dunn for an in-court identification during her testimony. She stated that it was "extremely close" to the truck she saw. Hughes objected and moved for a mistrial and made an impromptu *ore tenus* motion to suppress.

¶87. Certainly a photo which the State intends to use to obtain an in-court i.d. of the defendant's truck is relevant, and should have been given to the defense prior to the day it was used in court. U.R.C.C.P. 9.04. The question remains, however, whether Hughes had adequate time to prepare for the use of the photo. In *Inman v. State*, this Court noted that there is no hard and fast rule determining how much time is a reasonable time for the defense to assimilate unexpected and previously undisclosed evidence offered by the State,

Where the state is tardy in furnishing discovery which it was obligated to disclose, the defendant is entitled upon request to a continuance postponement of the proceedings reasonable under the circumstances. . . . There will no doubt be cases where postponement of a day or two, or in some cases even an hour or two, will suffice.

Inman v. State, 515 So. 2d 1150, 1153 (Miss. 1987)(quoting *Foster v. State*, 484 So. 2d 1009 (Miss. 1986))(citations omitted). Similarly, while this Court has eschewed any notion that a defendant must affirmatively demonstrate prejudice to show reversible discovery violations,⁽⁵⁾ this Court has always maintained that an adequate time to assimilate the unexpected information cures the error: "We have recognized that non-discovered evidence may be admitted at trial if the party against whom that evidence is offered is given a reasonable opportunity to make adequate accommodation." *Robinson v. State*, 508 So. 2d 1067, 1071 (Miss. 1987)(quoting *Henry v. State*, 484 So. 2d 1012, 1014 (Miss. 1986)).

¶88. However, the truck in question was known to be an important issue from the day Hughes was taken into custody. No question was raised by Hughes as to whether the picture accurately portrayed the truck owned by Mrs. Hughes Sanders and used by Hughes. Further, Hughes had access to the photograph prior to Mrs. Dunn's taking the stand, and used it in questioning her.

¶89. Hughes, however, argues that the photo was on its face unduly suggestive, and the identification was improper, not being tested by the presence of other similar vehicles, or a vehicle "line-up". Although this Court has not directly addressed this issue, an examination of relevant authorities from federal and state law demonstrates that a "line-up" to identify inanimate objects is not subject to the same constitutional restrictions which burden eyewitness identifications of criminal defendants. See *Johnson v. Sublett*, 63 F.3d 926, 931-32 (9th Cir. 1995)("Johnson contends that the victim's in-court identification of the automobile which Johnson used to carry Jones out to the desert was tainted by unduly suggestive pretrial identification procedures and therefore should have been excluded. While this argument deserves credit for creativity, *Stovall* and its progeny do not require car line-ups. There is no authority holding that a

defendant's due process right to reliable identification procedures extends beyond normal authenticity and identification procedures for physical evidence offered by the prosecution."); *Inge v. Procunier*, 758 F.2d 1010, 1015 (4th Cir. 1985)("We agree with the district court and the Virginia court that the identification of a truck is not governed by the constitutional limitations that control the identification of a defendant. Objections in the nature of those made here rather go to the weight and sufficiency of the evidence than as a constitutional limitation on its admissibility.") *People v. Miller*, 535 N.W.2d 518, 523 (Mich. Ct. App. 1995)("We add Michigan to the growing list of states that hold that any suggestiveness in the identification of inanimate objects is relevant to the weight, not the admissibility, of the evidence."); *Brooks v. State*, 560 N.E.2d 49, 58 (Ind. 1990). See also *State v. Roscoe*, 700 P.2d 1312, 1324 (Ariz. 1985); *People v. Coston*, 576 P.2d 182, 208 (Colo.Ct. App. 1977), aff'd., 633 P.2d 470 (Colo. 1981); *Klase v. State*, 346 A.2d 160, 162 (Del. 1975). *State v. Bruns*, 304 N.W.2d 217, 219 (Iowa 1981); *Commonwealth v. Simmons*, 417 N.E.2d 1193, 1195 (Mass. 1981); *State v. Cyr*, 453 A.2d 1315, 1317 (N.H. 1982); *State v. King*, 639 P.2d 809, 811 (Wash. Ct. App. 1982).

¶90. In this case, Hughes' *ore tenus* motion to suppress the identification of the vehicle by Mrs. Dunn was properly denied without comment by the trial court judge. Furthermore, the use of the black Ranger pickup was an issue known to Hughes from the beginning and no surprise can be attached to the use by the State of a picture identified by a witness whose identity and whose testimony was also well known by all. It is apparent that Hughes had more than enough time to adequately prepare for the use of the photograph. For these reasons, Issue V is without merit.

VI. Whether the Circuit Court erred in denying the Appellant's motion to suppress physical evidence seized from the person of the Appellant by or at the request of Sammy Webb and Fernando Perez filed on August 13, 1996, and in denying the Appellant's motion in limine to suppress tests performed upon physical evidence seized from the person of the Appellant by or at the request of Sammy Webb and Fernando Perez filed on August 5, 1996.

¶91. Hughes's next assignment is a two- part attack of the validity of the taking of hair and saliva samples. Hughes argues that the waiver was involuntary due to his inability to understand its terms; and, furthermore, that even if the waiver was effective, Hughes only agreed to the taking of the samples, not their submission for genetic testing. Both issues are wholly without merit.

¶92. First, it should be noted that "voluntary" in this context is analogous to "voluntary" in confessions or statements, as both are concerned with a lack of coercion or duress. Likewise, both depend on a host of factual inquiries which are best left to the first hand interpretation of the trial court judge, rather than a cold record on appellate review. *McGowan v. State*, 706 So. 2d 231, 236 (Miss. 1997); *White v. State*, 495 So. 2d 1346, 1347 (Miss. 1986).

¶93. This is particularly true with claims of diminished capacity. This Court has made clear that low intelligence is merely one factor to be considered in the overall inquiry of a voluntary statement. *Neal v. State*, 451 So. 2d 743, 755 (Miss. 1984)(citing *Ford v. State*, 75 Miss. 101, 21 So. 524 (1897); *Hamilton v. State*, 77 Miss. 675, 27 So. 606 (1900); *Harvey v. State*, 207 So. 2d 108 (Miss. 1968); *Dover v. State*, 227 So. 2d 296 (Miss. 1969); *Harrison v. State*, 285 So. 2d 889, 890 (Miss. 1973); *Hancock v. State*, 299 So. 2d 188 (Miss. 1974); *Lee v. State*, 338 So. 2d 399, 401 (Miss. 1976); *Gator v. State*, 402 So. 2d 316 (Miss. 1981)). Similarly, it is apparent that diminished capacity is also relevant, and appropriately weighted as a factor, in a determination that Hughes' consent was knowing for

Penick purposes. Here both issues were completely addressed by the trial court.

¶94. At the suppression hearing, the trial court heard testimony concerning Hughes' intelligence quotient and his alleged inability to understand the terms of the waiver. At this hearing it was also developed that Hughes does not read; and, knowing this fact, Investigator Webb read the entire waiver form to Hughes. Investigator Webb also testified that he was very careful to ensure that Hughes understood the terms of the waiver. The waiver form read to Hughes, and which he signed, is as follows:

I, William Hughes, do hereby authorize proper medical personnel to draw blood samples, take hair samples from my body and take saliva samples. I hereby authorize that these blood, hair samples, and saliva samples be turned over to Fred Perez or Sammy Webb being Law Enforcement Investigators to aide them in the investigation of the Death of Ashley Galloway

I have been advised that I have the constitutional right not to have these samples taken without a Search Warrant, and I have been advised of my right to refuse consent to such a search. Having been advised of these rights, I do hereby waive these rights and consent to the taking of blood, hair and saliva samples.

This written permission is being given by me voluntarily and without threats or premises of any kind

/signed William Hughes

Sammy Webb

Fernando Perez

¶95. It strains credulity to maintain that Hughes was unable to understand that the State was asking him 1) to agree to the taking of the samples, 2) that the purpose of these samples was to aid in the criminal investigation of the death of Ashley Galloway, and 3) he had a right to refuse. The trial court judge, after hearing this testimony, found that Hughes had voluntarily consented to the taking of the samples, which this Court finds to be well within the bounds of his discretion in so deciding.

VII. Whether the Circuit Court erred in overruling the Appellant's objections to the admission of photographs of the body of Ashley Galloway taken at the house on Simpson Road in Quitman County, MS, and his motion to preclude admission of gruesome and highly prejudicial color photographs and autopsy photographs of the deceased.

¶96. Hughes next contends that the trial court erred when it permitted photographs of Galloway's corpse to be shown to the jury. Hughes specifically objects to the photos marked exhibits 43, 46, 47, 48, 49 and 50, and the autopsy photos marked exhibits 55, 56 and 57.

¶97. Mississippi applies M.R.E. 403 to determine the propriety of admitting photos of the victim. That familiar rule provides:

Although relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence.

Miss. R. Evid. 403.

¶98. In *McNeal v. State*, this Court laid out a guide to assist the trial courts in determining whether photos offered by the State were more prejudicial than probative:

[W]e do not presume to conclude that every gruesome photograph admitted into evidence constitutes an abuse of discretion. . . we caution the trial judge to carefully consider all the facts and circumstances surrounding the admission of this particular type of evidence. More specifically, the trial court must consider: (1) whether the proof is absolute or in doubt as to identity of the guilty party, as well as, (2) whether the photographs are necessary evidence or simply a ploy on the part of the prosecutor to arouse the passion and prejudice of the jury.

McNeal v. State, 551 So. 2d 151, 159 (Miss. 1989).

¶99. A determination under Rule 403 and *McNeal* is within the discretion of the trial court judge. *Holland v. State*, 587 So. 2d 848, 864 (Miss. 1991); *Stringer v. State*, 548 So. 2d 125, 134 (Miss. 1989) (citing *Boyd v. State*, 523 So. 2d 1037, 1040 (Miss. 1988); *Sims v. State*, 512 So. 2d 1256, 1258 (Miss. 1987); *McFee v. State*, 511 So. 2d 130, 134 (Miss. 1987)).

¶100. Furthermore, the mere fact that the defense will stipulate to what the State hopes to prove by the photos does not bar their admissibility, as this Court explained in *Noe v. State*, 616 So. 2d 298, 303 (Miss. 1993); and, *Stevens v. State*, 458 So. 2d 726, 729 (Miss. 1984).

¶101. Hughes first contends that he was prejudiced not only by the gruesome nature of the photographs, but by the fact that exhibits 43, 46, 47, 48, 49, and 50 were blown up to 8 1/2 by 11. The 8 1/2 by 11 photos are no more or less gruesome than the 3 1/2 by 5 autopsy photos. These were not poster sized blow ups, but obviously simply enlarged to make them more readily viewable, not to exacerbate their unpleasantness, as the trial court judge noted:

[THE COURT] If the Court felt like that the blowing up was an effort to somehow inflame the jury, then certainly the Court could consider that point, but clearly it's not an effort, in my mind, it's not an effort on the part of the State to blow up a picture to somehow inflame the jury. It is clearer when you look at it. As pointed out, if this upcoming witness or Dr. Hayne or anyone else decides to use the photograph, it would be easier to testify from; likewise, in looking at the various photographs, even though they may depict obviously the same body, different angles, different positions. Some are closer up; some are further away, but again, I don't think they're cumulative to the extent that they would in any way, any possible way, be prejudicial as far as the effect on the jury.

¶102. Exhibit 43 depicts the debris covering Galloway's body. Its relevance goes to demonstrating an attempt to hide the crime. Exhibit 46 shows the location of Galloway's body under the flooring of the abandoned house. Again, the relevance is plain in that it demonstrates the concealed location in which Galloway's body was found. Exhibit 47 shows the extent of the flooring which was removed in order to extricate Galloway's body from the house. Exhibit 48 demonstrates the burned area above the wounds on Galloway's chest, which is relevant to show an attempt to impede the discovery of these wounds. Exhibit 49 shows the extensive injuries to Galloway's face. Exhibit 50 shows Galloway's hand and goes to the presence or lack of defensive wounds. Exhibit 55 clearly shows the burned area of the chest. Exhibit 57 shows the ligature marks on Galloway's neck. Exhibit 56 shows the bruising of Galloway's genital area.

¶103. These pictures form the sequence in which the police recovery team uncovered Galloway's body, and

as such, form a progressive view of the crime scene and the investigation into the cause and circumstance of Galloway's death. Taking these photos as a whole, it is clear that they are not so gruesome and devoid of probative value as to demonstrate an abuse of discretion on the part of the trial court judge in admitting them.

VIII. Whether the Circuit Court erred in allowing the Appellee to introduce into evidence census data for Mississippi.

¶104. Hughes seeks reversal on the basis that trial court improperly allowed the statistical census data regarding the population of Mississippi to be admitted into evidence over his objection that it was irrelevant and highly prejudicial under M.R.E. 401, 402 and 403.

¶105. This Court in *Hull v. State* stated that the frequency with which a given match occurs randomly in the population is relevant and admissible evidence in an RFLP case, and it likewise should also be admitted in the context of PCR. *Hull v. State*, 687 So. 2d 708, 728 (Miss.1996)

¶106. The State introduced as a general exhibit to its case three sets of population statistics. One set of data gave a population breakdown by gender of those persons living in rural, suburban and urban areas of Mississippi. A second set of data gave a population breakdown of all persons in Mississippi by age, gender and race. These first two sets of data were contained in a total of two pages.

¶107. A third set of data included population statistics from the following counties: Alcorn, Benton, Bolivar, Calhoun, Chickasaw, Coahoma, DeSoto, Grenada, Itawamba, Lafayette, Lee, Marshall, Monroe, Panola, Pontotoc, Prentiss, Tallahatchie, Tate, Tippah, Tishomingo, Tunica, Sunflower, Union, Quitman and Yalobusha. This data was broken down by gender, age and race⁽⁶⁾ for each county. This set of data was contained in a total of forty pages.

¶108. Hughes contends the inclusion of this mass of statistical data skewed the value of the DNA evidence against him. The State's expert testified at length about the DNA evidence and the likelihood that matching DNA could be found in the population at large.

¶109. It is critical to understand some fundamental concepts about probability in order to properly weight DNA frequency statistics. Logical errors are very common in this area and routinely made by the attorneys and experts attempting to present DNA statistical evidence.⁽⁷⁾

¶110. A frequency statement such as 1 in 86,000 is not a statement of the probability that some other person besides the defendant has the same DNA "match". The statistic of 1 in 86,000 refers to the probability that a *random* person picked from the *reference* population group would have consistent DNA. The reference population upon which the State's expert based its statistics was the general population of the United States. Thus, while the statement "1 in 86,000 persons share Hughes' DNA" is correct, the statement that "we must therefore test at least 86,000 persons to find another consistent match" is a logical fallacy. The correct statement would be that "If we were to test every single member of the reference population, the average occurrence of this genotype would be 1 in 86,000." Necessarily, such a calculation does not speak in absolute terms but in averages.

¶111. Mrs. Montgomery, the State's DNA expert and defense counsel essentially made this mistake when discussing the statistical probability during voir dire prior to trial.

Q. [COUNSEL FOR HUGHES ON CROSS] Assume, Mrs. Montgomery, that on the facts I mentioned, that the State alleges the crime occurred in Tate County, Mississippi, and at the 1990 census Tate County had a population of 21,432 individuals. Now, would it be fair to argue that you would have to test, for example, four Tate Counties?

A. MRS. MONTGOMERY [Witness] Well, I would need to know the race breakout of that 21,000 because we look at these frequencies based on racial populations.

Q. Right.

A. And if you're adding up numbers that's one -- I would do it as casting a net. If you had to cast a net to find how many people -- and I'm saying, say, 86,000 individuals I need to look at -- you would need to cast a net big enough to cover 86,000 folks, to look at those folks and profile them.

Q. So that would be Tate County four times? You've have to cast four nets?

A. Utilizing your numbers and assuming one race group.

Q. Right.

A. Basically, I guess.

Q. So your answer would be yes?

A. Yes.

¶112. Clearly, a 1 in 86,000 random match probability (RMP) does not equate to having to test four (4) Tate Counties to find a match, as was posited by the defense attorney and accepted by Mrs. Montgomery. One theoretically could randomly find a match sitting in the courtroom, or two matches within one building in Senatobia, Mississippi, whether the population of Tate County was 10 or 1,000,000 people. However, it is important to note that this analogy was not made *before* the jury either in questioning of the State's expert or in argument at closing.

¶113. Obviously, applying a RMP of 1 in 86,000 to a greater base population will result in a higher probability of someone else within that population having a "match" because you would, theoretically, be testing a larger group of persons; and, therefore, you would have more "chances" of getting a positive "match". Concomitantly, the same is true that if the base probability of a random match is 1 in 86,000 over the whole Southeast, then testing a smaller reference population, such as Tate County, would yield a lower probability of a match in the reduced population set. This concept is often employed by defense attorneys when the population in the area in which the crime occurred is substantially higher than the RMP. This general concept was noted by Mrs. Montgomery when she testified:

A. [MRS. MONTGOMERY ON DIRECT] Well, I think it's important because I think some lay individuals think DNA is absolute identity. And at present, given the testing systems we're running, I could not say absolute identity. In the future we may be able to but today we cannot and we should not. And so when you're talking about a profile it's important to know how common or how rare it is so that you can say, all right, if it's a very common profile, if it's 1 in 4, then 1 in 4 people could have been the donor. Well, then now you know how heavily to weigh that as opposed to 1 in a million or 1

in a billion or 1 in 86,000. And again, I think other things should be considered. You've brought up geography. One in 86,000 may mean one thing in Los Angeles or New York and another thing in Louisiana or Mississippi. But I feel the jury or the Court should made that decision, not me.

¶114. While this is true in the abstract, and certainly goes to the weight of the statistic, the math involved in putting a *definite* number on the difference in 1 in 86,000 in Los Angeles and 1 in 86,000 in Tate County is quite complex.⁽⁸⁾ This entire hypothesis of cause assumes a random distribution across the reference population of the various genotypes. The possibility of groupings of certain genotypes based on ethnic subpopulations (substructuring) was once a hotly debated topic, but has largely been resolved with advent of the National Research Council Committee Report II (NRC II).⁽⁹⁾

¶115. The odds are definitely against finding a match in Tate County -- 86,000 to 1, which is what the statistic properly means. But, the important fact is that the number 86,000 in this odds calculation does not represent a given sample number which *must* be tested in order to find consistent DNA. However, during her testimony, Mrs. Montgomery was careful to note the correct use of the statistic before the jury and steered clear of linking the frequency estimate of 1 in 86,000 to any absolute statistical probability that Hughes was in fact the matching donor.

A. [MRS. MONTGOMERY ON DIRECT] [D]epending on the markers, some people refer to PCR as an exclusionary test, in that you can exclude an individual with 100% assurance but when you say you can't exclude that individual because his genetic markers are consistent with the biological evidence, you're not saying he donated that sample, you're saying that you cannot exclude him as a donor. And then the next question becomes, well, maybe if it's not him, who else could it have been. Then you go to the frequency charts on how common or how rare these genetic markers are to find out whatever your profile is what is the frequency. If I looked at a population of individuals, how many people would I have to look at *on average* to find another individual who would be the same as the biological sample profile that we looked at.

¶116. 1 in 86,000 is simply not that strong a statistic, standing on its own. Clearly, the State can and should point out to the jury that the frequency of random occurrence, coupled with the non-statistical, circumstantial evidence of this case, make it highly unlikely that another man besides Mr. Hughes is the match for the DNA found in the semen, and this was done by the State, albeit while mis-characterizing the nature of the frequency statistic:

[Prosecutor during closing argument] What she [Mrs. Montgomery] told you [was] that the sperm found in Ashley Galloway was of a genetic profile so rare that it only appeared in 86,000 people, one in every 86,000 people, okay, and William Ray Hughes is one of those people that share that profile, okay? She told you you'd have to drop a big net, drop it across the country, drop a big net, pull 86,000 people at random in order to find one other person that shares the same genetic profile as the one who left that sperm and the same as William Ray Hughes. You know, that's what we call a statistical probability, ladies and gentlemen. But I want to ask you to think a little further. Use your common sense, okay? That's what we keep telling you. Suppose we were to find another person that shared that same genetic profile. Suppose we were to test 86,000 and find one other who shared that same genetic profile. Wonder if that one person would happen to drive a black truck. Wonder what the statistical probability of that might be. I wonder whether that one other person that you might find out of 86,000 might also work 1.2 miles from the place that Ashley was picked up, having left work just

minutes before she got into a car matching the description. Wonder what the statistics would be on that. What do you suppose the probability would be? And if we found another person who shared that genetic profile when we pulled those 86,000 people at random, wonder what the probabilities would be of them having one of Ashley's rings at their front door. Do you see what I'm saying to you, ladies and gentlemen? In a case such as this you cannot isolate the circumstances. If there was just one point of proof, ladies and gentlemen, maybe that would not be enough for you. Maybe there would be reasonable doubt, but what you just do in a case like this is look at the totality of the circumstances, and the DNA is but one of those circumstances that you must look at, you must focus on. It's one of those things that brings us to William Ray Hughes as the one who raped and murdered Ashley. I wonder if we found another one person in that 86,000 in a random pull whether or not Stella Rowe would have said, yes, that's the man.

¶117. This unquantified inference, however, is fundamentally different than stating that the statistics, in the absence of the circumstantial evidence linking Hughes to the victim's property and last known location, can demonstrate that Hughes must be the matching donor of the DNA simply because, given the frequency of occurrence, no other person in this area could have this DNA. However, this was not done. We still have the census data from the State of Mississippi which was received into evidence and is there, a mass of information which is irrelevant.

¶118. In different contexts this Court has held one erroneous or confusing item in a mass of information submitted to the jury is not enough to warrant reversal. *Motorola Communications & Elecs. Inc. v. Wilkerson*, 555 So. 2d 713, 722 (Miss.1989). In *Wilkerson*, thirty-three (33) out of fifty-four (54) requested jury instructions were approved and submitted to the jury. One instruction was found on appeal to be "confusing. It combine[d] testimony and statutory language in such a way that it seem[ed] to be a comment on the evidence and [it] is doubtful that the instruction was helpful to the jury; therefore, it should not have been given." *Wilkerson*, 555 So. 2d at 722. Even though the Court found the instruction to be an erroneous statement of law and confusing to the jury, the Court focused on the importance of viewing everything submitted to the jury as a whole. The Court found it highly unlikely one item out of so many would, by itself, cause the jury to render a verdict against a defendant.

¶119. The reasoning in *Wilkerson* applies here. The Hughes jury listened to lengthy expert testimony concerning the DNA evidence in this case. The State submitted forty-four (44) pages of highly detailed statistical evidence as part of a general exhibit. Neither the State nor the defense commented on the statistics submitted. This data was not helpful and should not have been admitted. It is unbelievable, however, that the jury could have pulled one single item out of this mass of information, as Hughes suggests, and rendered its verdict based solely on this exhibit. This proposition is strengthened by the overwhelming evidence from other sources that ~~Mr.~~ Hughes committed this rape and murder. Even though the population data should not have been admitted, this alone is not enough to warrant a reversal.

¶120. We find the admission of census data in the abstract to be harmless error.

IX. Whether the Circuit Court erred in overruling the Appellant's continuing objection on the testimony of Detective Patrick Davis concerning knives based upon a violation of Mississippi Rule of Evidence 702.

¶121. Hughes contends that the trial court erred in admitting certain testimony offered by Patrick Davis, an investigator with the Senatobia Police Department, commenting on the similarity between the kitchen knife

discovered in Hughes' dresser and the knife discovered near Galloway's class ring on Lewallen's property. Specifically, Investigator Davis stated they were comparable, of the same design and made by the same company, "Gibson Stainless China". The trial court erred in admitting the testimony, but such error was harmless.

¶122. M.R.E. 701 states:

If the witness is not testifying as an expert, [her] testimony in the form of opinions or inferences is limited to those opinions or inferences which are (a) rationally based on the perception of the witness and (b) helpful to the clear understanding of his testimony or the determination of a fact in issue.

¶123. This Court has also noted:

Moreover, the comment to Rule 701 explains the two-part test for the admissibility of lay witness opinion testimony. First, the testimony must assist the trier of fact. Second, the opinion must be based on the witness' firsthand knowledge or observation. The second prong of the test is in accordance with M.R.E. 602 requiring that a witness who testifies about a certain matter have personal knowledge of that matter.

Jones v. State, 678 So. 2d 707, 710 (Miss. 1996)(citations omitted).

¶124. The requirements then for proper lay opinion testimony are that, first, it must assist the trier of fact; and, secondly, it must be based on the personal observation of the witness. Furthermore, this Court has clarified that when the jury itself is able to evaluate the evidence, lay opinion has no place in court because "[i]t naturally follows that if the jury can clearly see for themselves **and if the witness is in no greater position to relate what is depicted by personal observation of the events**, then his opinion is not one which is helpful to the trier of fact." *Wells v. State*, 604 So. 2d 271, 279 (Miss. 1992)(emphasis in original & footnote omitted.)

¶125. Here, Investigator Davis clearly had first hand knowledge of both knives, having seen and handled both of them. Importantly, however, both the knives were exhibits to the State's case, and thus the jurors were in just as good a position to form their own lay opinion as to whether the knives were similar. This case is analogous to *Wells*, in which the videotape upon which the State's witness was commenting was available for the jury to make its own conclusions. This Court made clear that if a witness has something special to offer in commenting on the evidence, then the proper method of bringing such testimony is to qualify the witness as an expert; otherwise, the jury is just as able to form a lay opinion as the witness:

A layperson is qualified to give an opinion because he has first-hand knowledge which other laypeople do not have. According to Wigmore, a lay witness opinion comes from one who concededly has no greater skill than a juror in drawing inferences from the evidence in question. 7 Wigmore, Evidence § 1924 (1978). By comparison, the expert has "something different" to contribute. 3 McCormick on Evidence 33 (E. Cleary ed. 1984). . . .

Wells, 604 So. 2d at 279.

¶126. In the instant case, the jury was clearly able to examine the knives themselves and draw lay conclusions therefrom. Investigator Davis' testimony was therefore not helpful to the jury and should not have been allowed.

¶127. However, there was no possibility that the jury's own evaluation of the knives' similarity would be overawed by the improper testimony of the State's witness, as Investigator Davis merely commented on what was plainly obvious and made no attempt to positively match the knives. Nor did he base his opinion on any expertise.

¶128. Further, the knives were of little importance to the case. They were never intimated as the weapons used to stab Galloway by any witness. The only possible relevance was the proximity of the two knives. One knife was located where the rings were found and the other knife, found in Hughes' bedroom, was very similar to it. This error, however, is technical at worst, and is harmless beyond a reasonable doubt.

X. Whether the Circuit Court erred in overruling the Appellant's objection to the Assistant District Attorney interrogating Julie Hughes Sanders about blood during her redirect examination.

¶129. Hughes next contends that it was error to allow the State to redirect Mrs. Hughes Sanders concerning her prior testimony and statements about the blood stain Hughes had on his pants the day of Galloway's disappearance. This issue is without merit.

¶130. "The general rule is that redirect is limited to matters brought out on cross-examination. . . . Moreover, the trial court has broad discretion in allowing or disallowing redirect examinations of witnesses." *West v. State*, 463 So. 2d 1048, 1055 (Miss. 1985)(citing *Cole v. Tullos*, 228 Miss. 815, 90 So. 2d 32 (1956) and *Tucker v. Tucker*, 74 Miss. 93, 19 So. 955 (1896)); also see *Blue v. State*, 674 So. 2d 1184, 1212 (Miss. 1996)("The scope of redirect examination, while largely within the discretion of the trial court, is limited to matters brought out during cross-examination. Furthermore, this Court will not disturb a trial court's ruling on matters pertaining to redirect unless there has been a clear abuse of discretion.")(citing *Evans v. State*, 499 So. 2d 781 (Miss. 1986) and Miss. Unif. Crim. R. Cir. Ct. P. 5.08)).

¶131. During cross-examination of Mrs. Hughes Sanders, Hughes elicited that she had been improperly coerced by her husband and that she was under pressure from investigators when making her prior statement. She also flatly stated that some of her previous testimony was a lie. The trial judge allowed the State to inquire about these matters on re-direct based on this fact.

¶132. The trial court did not abuse its discretion in allowing the State to inquire about the blood stain on redirect, especially in light of the fact that the trial judge allowed Hughes a full re-cross of Mrs. Hughes Sanders about the uniform.

XI. Whether the Circuit Court erred in overruling the Appellant's objection to the Appellee eliciting testimony from Julie Hughes Sanders concerning the Appellant knocking a hole in the wall of their home.

¶133. Hughes contends that it was error to admit evidence concerning a fight Mrs. Hughes Sanders and Hughes had the night of Galloway's disappearance, and that it was further error to admit a photograph of a hole in the wall of the Hughes' home. In Mrs. Hughes Sanders' prior statement, she stated that the fight occurred on January 9 around 11:00 p.m. and was the result of an argument over her kids and the fact that she was seeing someone else. Mrs. Hughes Sanders also had, in this prior statement, said that Mr. Hughes had knocked a hole in the wall. This hole was photographed.

¶134. "A trial judge enjoys a great deal of discretion as to the relevancy and admissibility of evidence. Unless the judge abuses this discretion so as to be prejudicial to the accused, the Court will not reverse this ruling." *Fisher v. State*, 690 So. 2d 268, 274 (Miss. 1996)(citing *Shearer v. State*, 423 So. 2d 824, 826 (Miss. 1982)); *Coleman v. State*, 697 So. 2d 777, 784 (Miss. 1997)(citations omitted); *Page v. State*, 295 So. 2d 279, 282 (Miss. 1974)(citing *Clanton v. State*, 279 So. 2d 599 (Miss. 1973)).

¶135. In the instant case it is clear that the State sought to offer the photograph to corroborate Mrs. Hughes Sanders' testimony as to what occurred on January 9th, the day of Galloway's disappearance, and to demonstrate Hughes' whereabouts on the night in question. It was clearly relevant for that purpose. The trial judge did not abuse his discretion in admitting the photograph.

XII. Whether the trial court erred in denying Appellant's motion to exclude DNA evidence.

¶136. In *Polk v. State*, this Court first sanctioned the use of evidence of a DNA match between crime scene evidence and the DNA of a criminal defendant. *Polk v. State*, 612 So. 2d 381 (Miss.1982). This use was subsequently expanded in *Hull*, 687 So. 2d at 728 and most recently affirmed in *Crawford v. State*, 716 So. 2d 1028 (Miss.1998). All of these cases dealt with a particular type of DNA test known as Restriction Fragment Length Polymorphism (RFLP). The DNA test performed in the instant case was polymerase chain reaction (PCR).⁽¹⁰⁾ The admissibility of PCR type DNA evidence is a novel issue before this Court. Thus, a preliminary question is whether PCR type DNA testing should be admissible in Mississippi.⁽¹¹⁾

¶137. In *Polk*, this Court adopted the three-pronged test of *Ex Parte, Perry v. State*, 586 So. 2d 242, 250 (Ala. 1991) for determining whether DNA evidence should be admissible. *Polk*, 612 So. 2d at 390. This test asks:

I. Is there a theory, generally accepted in the scientific community, that supports the conclusion that DNA forensic testing can produce reliable results?

II. Are there current techniques that are capable of producing reliable results in DNA identification and that are generally accepted in the scientific community?

III. In this particular case, did the testing laboratory perform generally accepted scientific techniques without error in the performance or interpretation of the tests?

Id.

¶138. The *Polk* court was also particular to include in the appendix of the opinion a series of guidelines for the admission of DNA evidence, most of which are also relevant for a determination of PCR DNA admissibility. Applying *Polk* to PCR type DNA testing as revealed in the hearing in the trial court below, it is clear that the trial court was correct in admitting the evidence.

Prong I

¶139. The theory upon which PCR DNA testing is based is the same theory that RFLP testing relies on, specifically, that each cell contains DNA which is different except in identical twins.⁽¹²⁾ It is clear that this theory has gained general acceptance in the scientific community. Mrs. Montgomery, the State's expert in the field of molecular biology and DNA analysis, noted that PCR type testing has been used for many

years, and the markers which are employed have been extensively researched.

Q. [DEFENSE ON CROSS-EXAMINATION] Is DNA testing still evolving, Mrs. Montgomery?

A. MRS. MONTGOMERY [Witness]: It's evolving in the sense that in 1990, I had only one PCR base marker to use in a forensic setting. Today, I have ten. I anticipate next year having 13, 15. As those get validated, accepted by the scientific community, they will be added to the battery of markers we use. But again, the limitation will be the sample at hand.

¶140. Additionally, numerous courts have recognized PCR based DNA testing as scientifically accepted. See *Chase v. State*, 706 A.2d 613, 519 (Md.1998); *Commonwealth v. Rosier*, 685 N.E.2d 739, 743 (1997); *People v. Morales*, 227 A.D.2d 648 (N.Y. A.D. 1996); *State v. Begley*, 956 S.W.2d 471, 477 n.12 (Tenn.1997)(collecting some 28 federal and state cases approving of use).

¶141. In conclusion, it is readily apparent that PCR testing for a "match" meets *Polk's* first requirement. Furthermore, it is evident that the population frequency statistics should also be allowed under *Hull. Hull*, 687 So. 2d at 728. In that case the Court stated,

This Court reasons that if the witnesses can put the meaningfulness of a match in terms of strong or weak, then it is unreasonable to prevent the parties from putting on statistical evidence to show **how** strong or **how** weak the evidence is. Without this evidence, the ability of the jury to use this evidence maybe diminished to such a degree as to be unhelpful to the trier of fact under Rule 703, or more prejudicial in that a jury may think it needs no evidence other than the "conclusion" that the defendant's DNA was found upon the victim's person. Accordingly, we hold that where the trial court finds that evidence of a DNA match is admissible as relevant, the court should also allow scientific statistical evidence which shows the frequency with which the match might occur in the given population.. .

Id.

¶142. In PCR as well as RFLP, the evidence of a match without accompanying statistics is not very probative. In PCR particularly, as explained by Mrs. Montgomery, the current technology and number of available markers essentially means that the probability for a random match will be much higher with PCR than with RFLP. Clearly, allowing the expert to testify to a "match" in the current case, without additionally explaining that 1 of 86,000 random whites would also "match", could be prejudicial, but at the least is incomplete. As in RFLP tests, the population frequency statistics should be allowed to supplement a PCR match as well. [\(13\)](#)

¶143. Though the theory of PCR testing is clearly well settled, *Polk* further requires that the implementation of that theory be demonstrated to be reliable and generally accepted as well.

Prong II

¶144. Prong II comprises two discrete tests. First, it must be shown that PCR testing is capable of producing reliable results; and, secondly, the process by which such results are obtained must be generally accepted within the scientific community.

¶145. Many of the testing and reliability concerns regarding DNA evidence in general were addressed by *Polk*. PCR, however, has several distinct differences which should be evaluated independently by this

Court.

¶146. As noted previously, PCR is an amplification process; and, as such, contamination by foreign DNA is a critical issue. Mrs. Montgomery explained the safeguards against contamination. First, there are three separate controls: the positive, the negative, and the buffer. The positive control is a known sample of DNA which is tested along with the suspect sample. If, at the conclusion of the test, it does not match the known control sample, then the test is considered contaminated and thus invalid. Similarly, since the negative control is a blank sample, it must show up blank for the test to be valid. The buffer control is a parallel blank sample which is subjected to every process the test sample is. If primers or enzymes are added to the test sample, they are added to the buffer. If the test sample is incubated, then the buffer is incubated, etc. If the buffer shows any DNA at the conclusion of the test, then the test has been contaminated and is discarded. These are the control procedures endorsed in *Polk. Polk*, 612 So. 2d at 393.

¶147. Furthermore, Mrs. Montgomery stated that these procedures were in compliance with the Technical Working Group on DNA Analysis Methods ("TWGDAM"). Mrs. Montgomery explained that there is currently no national licensing or accreditation board or process for forensic testing. Mrs. Montgomery is a member of the Louisiana Association of Forensic Scientists and the Southern Association of Forensic Scientists. She also explained that GenTest, in compliance with TWGDAM guidelines, conducts outside independent proficiency tests and has scored 100% accuracy. Mrs. Montgomery added that the American Society of Crime Lab Directors Laboratory had created an accreditation process which GenTest was in the process of obtaining, but it had not yet been accredited. Mrs. Montgomery was candid about potential error rates:

Q. [DEFENSE ON CROSS] But again, you would agree with the statement that not even the best laboratory would have an error rate of zero?

A. MRS. MONTGOMERY [Witness] That's a good, that's a reasonable statement to make. I would also emphasize that in a laboratory where you're processing unknowns and comparing and contrasting them against knowns, if you have an error of a sample mixup, which is human error in a laboratory, the likelihood will be that you will falsely exclude someone, not falsely include them.

¶148. Mrs. Montgomery also detailed the handling of the incoming test samples and verified the use of two separate qualified persons checking the results. In sum, the procedures in place at GenTest, described by Mrs. Montgomery in her testimony, demonstrate compliance with *Polk*.

Prong III

¶149. *Polk's* final requirement is that the procedural safeguards in place in general be followed in this specific case. Here, the trial judge was correct in determining that they in fact were followed.

¶150. Mrs. Montgomery testified that she personally followed the procedures mandated by the TWGDAM and the internal lab procedures outlined above. Hughes did attack the handling of the samples prior to their submission to GenTest. This, however, must be evaluated in light of the fact that in PCR, degradation, as opposed to contamination, is not as great a concern. This is due to the fact that PCR is much more likely to produce no result (a false exclusion) rather than a false inclusion. This property was clearly outlined by Mrs. Montgomery.

¶151. In conclusion, PCR meets the requirements of *Polk* and is now recognized as a viable addition to

RFLP in Mississippi. The trial court did not err in denying Hughes' motion to exclude DNA evidence.

XIII. Whether the Trial Court erred in denying the Appellant's motion for introduction into evidence of instances of past sexual conduct by Ashley Galloway, and in granting the Appellee's motion in limine to exclude evidence of past sexual behavior of the victim, Ashley Galloway.

¶152. In his 13th assignment of error, Hughes contends that it was error to prohibit Hughes from putting on evidence concerning Galloway's past sexual behavior.

¶153. Throughout the trial, Hughes attempted to create the impression that the State had failed to explore the possibility that someone other than Hughes had committed the murder. Hughes contends, in keeping with this theory of defense, that he should have been allowed to put on evidence of Galloway's past sexual conduct because it reasonably could create the inference that someone other than Hughes was the source of the semen found in Galloway's body. M.R.E. 412 is designed to prevent the introduction of irrelevant evidence of the victim's past sexual behavior to confuse and inflame the jury into trying the victim rather than the defendant.

¶154. The critical question is whether the evidence goes to demonstrating that another person is the actual source of the injury, or whether the evidence is simply offered to show the promiscuity or character of the victim. As such, the inquiry under Rule 412 devolves to a specific requirement of relevancy of the proffered evidence.

¶155. Under Rule 412:

If the court determines on the basis of the hearing . . . that the evidence which the accused seeks to offer *is relevant and that the probative value of such evidence outweighs the danger of unfair prejudice*, such evidence shall be admissible in the trial to the extent an order made by the court specifies evidence which may be offered and areas with respect to which the alleged victim may be examined or cross-examined.

M.R.E. 412(c)(3)(emphasis added); see **Herrington v. State**, 690 So. 2d 1132, 1136 (Miss. 1997).

¶156. Hughes proffered some hearsay and some direct evidence of Galloway's past sexual contacts. Even assuming such contacts are true, the closest was approximately two weeks before her disappearance. This contrasts sharply with **Herrington, Amacker v. State**, 676 So. 2d 909, 912 (Miss. 1991), and **Heflin v. State**, 643 So. 2d 512 (Miss. 1994), in which the proffered testimony exhibited a nexus between the time, place or the other possible perpetrator of the crime. In **Heflin** there was evidence that the victim may have had intercourse possibly two days before the rape with someone other than the defendant in the *same clothes* on which the incriminating evidence was found. **Heflin v. State**, 643 So. 2d at 516. Also, in **Amacker**, the proffered testimony was that *on the night* in question, a person other than the defendant had been sleeping with the victim. **Amacker**, 676 So. 2d at 910. Likewise, in **Herrington**, the proffer demonstrated highly probative evidence linking an alternate possible perpetrator with the victim, the time and nature of the injury. **Herrington**, 690 So. 2d at 1136.

¶157. The trial court judge in the instant case examined the proffer under Rule 412 and found:

[E]ven assuming here for the sake of argument that all these statements are true regarding the past sexual activity, some of these persons who are claimed to have had sexual relations with Galloway

had these relations months before she disappeared, and as pointed out, possibly the closest would be ... approximately two weeks prior to the Galloway's disappearance. . . . [T]he Court could allow the evidence only if the Court is able under Rule 412 to find that, number one, that the evidence which the accused seeks to offer is relevant, and that the probative value of such evidence outweighs the danger of unfair prejudice. . . . There's nothing to indicate to the Court that any of this would be relevant, even in any stretch of the imagination, to show any possible source of the semen by trying to show that one of these individuals, even assuming here for the sake of argument that they did have sexual relations with Miss. Galloway, that somehow two weeks or three weeks or four months or six months before here [sic] disappearance that she may have had sexual relations would in no way have any relevance concerning source of semen as being one of these individuals as opposed to the defendant.

¶158. The trial judge correctly applied Rule 412 and did not abuse his discretion in determining the evidence to be irrelevant.

XIV. Whether the Trial Court erred in granting the Appellee's motion in limine to exclude evidence of prior drug use by the victim, Ashley Galloway.

¶159. Hughes also contends that the trial court erred when it prevented him from introducing evidence of prior drug use by Galloway. Hughes sought to develop at trial the theory that Galloway was involved in some sort of drug ring, and was apparently raped and killed for a drug debt.

¶160. During the hearing on the State's motion in limine, defense counsel for Hughes alluded to information tending to show that Galloway was involved with narcotics. After the State had argued the absolute lack of any evidence whatsoever that Galloway was in a "drug ring" or was killed as part of some dope deal, counsel for Hughes averred:

Your Honor, the discovery is replete in some parts of it of allegations of Galloway being involved in drug trade, of using drugs. It's replete in discovery. I didn't conjure this up out of my imagination. I got it out of the discovery provided to me by the State.

¶161. The judge granted the motion in limine, but allowed Hughes to make a proffer of the evidence "replete in discovery" that Galloway was involved in the narcotics industry. Hughes proffered the testimony of four classmates none of whom had any first hand knowledge of drug use or drug sales.

¶162. Rule 401 states:

"Relevant Evidence" means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.

¶163. The comment to the Rule notes:

If the evidence has any probative value at all, the rule favors its admission. Such has been the experience under Federal Rule of Evidence 401 which is identical to this rule. . . .

¶164. The trial court enjoys substantial deference when determining matters of relevance. The problem here is that Hughes' evidence is so slight that it has no probative value whatsoever. Hughes' proffered testimony in the current case consists entirely of hearsay statements that Galloway *may* have *used* marijuana, and

some rumors that she sold it. Lacking was actual evidence of a "drug ring" or "drug debt" being involved in her death. None of the proffered testimony has any bearing on why she was murdered in the absence of at least some shred of testimony that connects the purported conduct with the murder. The trial judge correctly found that such evidence was wholly irrelevant.

¶165. Furthermore, this Court has noted that while the defense is entitled to rebut the State's case, wholesale character assassination of the victim is not valid legal argument:

The admissibility of evidence lies within the trial court's discretion, and this Court will not put the trial court in error unless the trial court abused its discretion. Here, the trial court thoroughly examined the evidence. Since the defense theory did not require an inquiry into the victim's character and since the proposed evidence bore significant prejudicial value, the trial court appropriately excluded it.

Pierre v. State, 607 So. 2d 43, 53 (Miss. 1992)(citing *Spivey v. State*, 58 Miss. 858 (1881)).

¶166. The trial judge was absolutely correct to exclude the "evidence" of Ashley Galloway's alleged prior drug use as a possible alternate theory of her murder as irrelevant.

XV. Whether the Trial Court erred in overruling the Appellant's objection to a relative showing Stella Rowe a photo from the newspaper.

¶167. Hughes next contends that his right to a fair trial was prejudiced because Mrs. Rowe's son showed her a picture of the victim from the newspaper, prompting Mrs. Rowe, who recognized Galloway as the girl she had seen in the pickup on the day of her disappearance, to contact police.

¶168. Hughes cites no authority which holds that the State must disclose a newspaper picture of which the State was unaware, did not possess, and did not use in its case. The record clearly shows that Mrs. Rowe was simply explaining why she decided to contact the police. Furthermore, it is incomprehensible how Hughes could allege unfair surprise under *Box* on these facts.

XVI. Whether the Trial Court erred on overruling the Appellant's continuing objection to Dr. Stephen Hayne's testimony concerning the sexual assault on Ashley Galloway.

¶169. Hughes contends that the trial court erred in permitting Dr. Stephen Hayne to testify that Galloway had been sexually assaulted, as he was not qualified to give an opinion as to whether a penetration had occurred. Dr. Hayne is the forensic pathologist who performed the autopsy of Galloway.⁽¹⁴⁾ During trial the State asked Dr. Hayne whether in his expert opinion penetration occurred. He testified that in his opinion it did.

¶170. Hughes contends, however, that because Dr. Hayne was not an expert on sexual assaults, he was not qualified to give an opinion as to whether penetration had occurred. Hughes directs this Court's attention to *Goodson v. State*, 566 So. 2d 1142 (Miss. 1990), *Goforth v. City of Ridgeland*, 603 So. 2d 323 (Miss. 1992) and *Howard v. State*, 701 So. 2d 274 (Miss. 1997). These cases are simply not applicable to the issues of this case.

¶171. Examining this Court's holdings, it is clear that pathologists have been qualified to testify as to penetration. See e.g. *Shafer v. State*, March 19, 1998 Slip Op. 93-KA-01197-SCT ¶ 14 1998 WL 119892, *4 (Miss. 1998); *Evans v. State*, 725 So. 2d 613, 255 (Miss. 1997); *Holland v. State*, 705

So. 2d 307, 331 (Miss. 1997). Doctors have also been permitted to testify to the legal fact of penetration when the victim is still living. See *Johnson v. State*, 626 So. 2d 631, 632 (Miss. 1993); *Herrington*, 690 So. 2d at 1133; *Willis v. State*, 203 Miss. 886, 888 35 So. 2d 323, 324 (1948).

¶172. In the instant case Dr. Hayne was giving an opinion concerning a specific type of physical injury consistent with forced penetration. As a forensic pathologist, such an opinion is well within his field of expertise, and the trial judge correctly allowed the testimony.

XVII. Whether the Trial Court erred in denying the Appellant's proposed Jury Instruction D-1 and in granting the Appellee's Jury Instructions S-1, S-2, S-3, S-4, S-5, and C-2-S.

¶173. Hughes next attacks the trial court's denial of several of his jury instructions and the granting of several of the State's instructions. Instruction S-1 was a statement of Miss. Code Ann. § 99-11-19 (1994) explaining venue. Hughes challenges this on the grounds set out in Issue I *supra*. For the reasons stated in Issue I *supra*, this contention is without merit.

¶174. Instruction D-1 was a peremptory instruction of "not guilty". This essentially challenges the sufficiency of the State's evidence to sustain the verdict. Hughes also challenges on sufficiency of the evidence grounds State's instruction S-2 (elements of capital murder); S-3 (elements of kidnapping); and, S-5 (elements of rape).

[The] peremptory instruction, motion for JNOV, and motion for new trial assail the legal sufficiency of the evidence. This Court must review the trial court's finding regarding sufficiency of the evidence at the time the motion for JNOV was overruled. The evidence is viewed in the light most favorable to the State. All credible evidence supporting the conviction is taken as true; the State receives the benefit of all favorable inferences reasonably drawn from the evidence. Issues regarding weight and credibility of the evidence are for the jury to resolve. Only where the evidence, as to at least one of the elements of the crime charged, is such that a reasonable and fair minded jury could only find the accused not guilty, will this Court reverse.

Eakes v. State, 665 So. 2d 852, 871-72 (Miss. 1995)(citing *Wetz v. State*, 503 So. 2d 803, 807-08 (Miss. 1987) and *McClain v. State*, 625 So. 2d 774, 778 (Miss. 1993)); *Glass v. State*, 278 So. 2d 384, 386 (Miss. 1973).

¶175. As this Court has explained, circumstantial evidence is sufficient to sustain a kidnapping charge:

Mississippi's kidnapping statute makes it unlawful to "forcibly seize and confine any other person" or "inveigle or kidnap any other person with intent to cause such person to be secretly confined or imprisoned against his or her will ..." Miss.Code Ann. § 97-3-53 (1994). The prosecution is required to prove each element of the underlying kidnapping offense beyond a reasonable doubt in order for the capital murder conviction to stand. Circumstantial evidence is sufficient to prove the elements of kidnapping... .

Underwood v. State, 708 So. 2d 18, 35 (Miss. 1998)(citing *Williams v. State*, 544 So. 2d 782, 789 (Miss. 1987)).

¶176. In *Williams v. State* this Court explained "[K]idnapping is not a specific intent crime, it is sufficient that the circumstances resulted in such a manner as to effect a kidnapping as opposed to an actual intent to

kidnap, i.e., it is not necessary to establish the mental state of intent by direct evidence." *Williams v. State*, 544 So. 2d 782, 790 (Miss. 1987)(citing *Williams v. State*, 445 So. 2d 798, 809 (Miss. 1984); *Voyles v. State*, 362 So. 2d 1236, 1243 (Miss. 1978)).

¶177. In the instant case, Hughes argues that the evidence of kidnapping is negated because Sue Greenwood testified to seeing Galloway in her store two days after she disappeared; and further, that no evidence was presented showing an abduction. Sue Greenwood did indeed testify that Galloway was in her store, but the jury was entitled to weigh the credibility of Mrs. Greenwood's identification.

This Court has in numerous cases, too many to mention, said that when the evidence is conflicting, the jury will be the sole judge of the credibility of witnesses and the weight and worth of their testimony. This wise rule applies with equal force to the state's witnesses and the appellant's witnesses, including the appellant himself. We have repeatedly held that in a criminal prosecution the jury may accept the testimony of some witnesses and reject that of others, and that they may accept in part and reject in part the evidence on behalf of the state or on behalf of the accused. In other words, the credibility of witnesses is not for the reviewing court.

Gathright v. State, 380 So. 2d 1276, 1278 (Miss. 1980)(citing *Davis v. State*, 320 So. 2d 789 (Miss. 1975); *Wilson v. State*, 264 So. 2d 828 (Miss. 1972); *McLelland v. State*, 204 So. 2d 158 (Miss. 1967)); see also *Groseclose v. State*, 440 So. 2d 297, 300-01 (Miss. 1983).

¶178. Examining the evidence put on by the State and giving it the benefit of the doubt, it is apparent that there was sufficient evidence to sustain a kidnapping charge. As noted previously, the circumstantial nature of that evidence was properly for the jury to weigh when determining its verdict.

¶179. Hughes also challenges the sufficiency of the evidence on the rape and murder. Again, "direct evidence is unnecessary to support a conviction so long as sufficient circumstantial evidence exists to establish guilt beyond a reasonable doubt." *Conner v. State*, 632 So. 2d 1239, 1252 (Miss. 1993). In a circumstantial case, "the prosecution bears the burden in a circumstantial evidence case of proving guilt beyond a reasonable doubt and to the exclusion of all reasonable hypotheses consistent with innocence." *Lester v. State*, 692 So. 2d 755, 796-97 (Miss. 1997)(citing *Sanders v. State*, 286 So. 2d 825, 828 (Miss. 1973)). Here, the jury was properly instructed concerning the circumstantial nature of the State's proof.

The Court instructs the Jury that if the Jury can deduce from the facts and circumstances surrounding the case, either from the evidence or lack of evidence, any reasonable hypothesis consistent with the innocence of the Defendant, then there is a reasonable doubt of the Defendant's guilt, and the Jury must return a verdict of not guilty.

¶180. Examining the evidence in this case, the trial judge was correct in refusing to grant D-1 and in granting S-1, S-2, S-3 and S-5. The evidence in this case was certainly legally sufficient to sustain a guilty verdict on all elements charged.

¶181. Hughes also argues that the trial judge improperly instructed the jury on the aggravators found in Miss. Code Ann. § 99-19-101(5) by allowing Hughes' previous fondling conviction to count under § 99-19-101(5)(a) "[t]he capital offense was committed by a person under sentence of imprisonment.", and § 99-19-101(5)(b) "[t]he defendant was previously convicted of another capital offense or of a felony

involving the use or threat of violence to the person." Hughes argues that this improperly allowed the jury to doubly count his prior conviction for fondling. In support of this contention, Hughes cites *Willie v. State*, 585 So. 2d 660 (Miss. 1991). Hughes is incorrect.

¶182. In *Willie*, this Court noted that in many circumstances the underlying motive for robbery is in fact pecuniary gain. *Willie v. State*, 585 So. 2d 660, 681 (Miss. 1991). Thus, this Court held that it was improper to give both § 99-19-101(5)(d) (robbery) and § 99-19-101(5)(f) (pecuniary gain) as separate aggravators. *Willie*, 585 So. 2d at 680.

¶183. This is not the case here because here the State did not use the conviction for the § 99-19-101(5)(a) aggravator, but the fact that Hughes was currently under a prison sentence. As this Court explained in *Blue v. State*, a conviction and prison sentence are not identical:

We agree that robbery by definition is committed for pecuniary gain and therefore "robbery" and "pecuniary gain" cannot be used as two separate aggravating circumstances.

The case *sub judice* however is an entirely different situation than *Willie*. It does not follow that having a prior conviction of a felony involving the use of threat or violence by definition means that one is under a sentence of imprisonment. An individual can have a prior conviction involving the use of threat of violence and not be under a sentence of imprisonment. Likewise, an individual can also be under a sentence of imprisonment, and not have a prior conviction involving the use of threat or violence. Thus, these two factors are separate and distinct. In the instant case, it just so happens that Blue's prior aggravated assault conviction was the same conviction for which he was still under sentence of imprisonment.

Blue v. State, 674 So. 2d 1184, 1219-20 (Miss. 1996).

¶184. Similarly, in *Taylor v. State*, this Court noted that it was permissible to use § 99-19-101(5)(a) and § 99-19-101(5)(b) as separate aggravators even though they were premised on the same conviction. *Taylor v. State*, 672 So. 2d 1246, 1276 (Miss. 1996). For this reason, Hughes' contention is without merit.

¶185. Hughes further argues that the instruction given on the § 99-19-101(e) aggravator, "[t]he capital offense was committed for the purpose of avoiding or preventing a lawful arrest or effecting an escape from custody," was not supported by the evidence.

¶186. This Court has made clear that in order to support a § 99-19-101(e) aggravator, "there [must be] evidence from which it may be reasonably inferred that a substantial reason for the killing was to conceal the identity of the killer or killers or to 'cover their tracks' so as to avoid apprehension and eventual arrest by authorities." *Taylor*, 672 So. 2d at 1275.

¶187. Here there was clearly enough circumstantial evidence to justify an instruction on this aggravator. Galloway's body was covered with debris and hidden under the flooring of an abandoned house in a remote area of Quitman County. Her chest was burned, impeding the investigation into the cause of her death. There was evidence that Hughes knew Galloway, and that shortly after the disappearance, Hughes had his hair cut short. When coupled with Hughes prior convictions for sex crimes, it is a reasonable and permissible inference that he killed Galloway to avoid her identifying him as the rapist.

¶188. In short, taking the evidence in a light most favorable to the State, there was ample evidence from which a reasonable jury could conclude beyond a reasonable doubt that Hughes left work, saw Galloway, picked her up, raped and then killed her. Put slightly differently, there was sufficient evidence as a matter of law to submit the evidence, albeit circumstantial, to the jury.

XVIII. Whether the Trial Court erred in overruling the Appellant's objections to the Assistant District Attorney asking leading questions during the trial in violation of Mississippi Rule of Evidence 611(c).

¶189. Hughes also contends that the trial court erred when it allowed the Assistant District Attorney to ask Mrs. Hughes Sanders leading questions during her direct and redirect. This issue is without merit.

¶190. Miss. R. Evid. 607 states flatly, "[t]he credibility of a witness may be attacked by any party, including the party calling him." Miss. R. Evid. 611 states, in part:

(c) Leading Questions. When a party calls a hostile witness, an adverse party, or a witness identified with an adverse party, interrogation may be by leading questions.

Miss. R. Evid 611.

¶191. Furthermore, the decision to allow leading questions is one that rests within the discretion of the trial court, which will only be reversed upon a showing of abuse of discretion. *McFarland v. State*, 707 So. 2d 166, 175 (Miss. 1997)(citing *Jones v. State*, 606 So. 2d 1051, 1059 (Miss. 1992)); *Ballenger v. State*, 667 So. 2d 1242, 1258 (Miss. 1995)(citations omitted).

¶192. Examining the instant case, it is clear that the trial court judge did not abuse his discretion. Mrs. Hughes Sanders was the very paradigm of a hostile witness. Her testimony not only deviated substantially from her pretrial prior statement, but was also inconsistent during both direct and cross-examination. The State was justified in attempting to pin Mrs. Hughes Sanders down with one version of her story or the other; and, the trial judge was correct in allowing leading questions to this effect.

XIX. Whether the verdict of the Jury on Counts One and Two of the Indictment is against the overwhelming weight of the evidence.

¶193. In his 19th assignment of error, Hughes argues that the jury's verdict was against the overwhelming *weight* of the evidence. Hughes refers the Court back to his argument under Issue XVII concerning the *sufficiency* of the evidence. As the State notes, these are two different standards. The sufficiency standard has been explained previously in Issue XVII.

¶194. This Court explained the appropriate test for the *weight* of the evidence in the recent case of *Pleasant v. State*,

"In determining whether a jury verdict is against the overwhelming weight of the evidence, this Court must accept as true the evidence which supports the verdict and will reverse only when convinced that the circuit court has abused its discretion in failing to grant a new trial." Only in those cases where the verdict is so contrary to the overwhelming weight of the evidence that to allow it to stand would sanction an unconscionable injustice will this Court disturb it on appeal.

Pleasant v. State, 701 So. 2d 799, 802 (Miss. 1997)(quoting *Herring v. State*, 691 So. 2d 948, 957 (Miss. 1997))(and citing *Benson v. State*, 551 So. 2d 188, 193 (Miss. 1989) and *May v. State*, 460 So. 2d 778, 780 (Miss. 1985)).

¶195. The very nature of the two standards is different because a test of the sufficiency of the evidence is a legal question, while an inquiry after the weight of the evidence simply asks whether the jury verdict is so manifestly wrong that the trial judge abused her discretion in not granting a new trial, which is a factual and highly deferential review. This difference is real, for:

The motion for judgment of acquittal notwithstanding the verdict tests the legal sufficiency of the evidence supporting the verdict of guilty. It is in effect a renewal of the defendant's request for a peremptory instruction made at the close of all the evidence. It asks the court to hold, as a matter of law, that the verdict may not stand and that the defendant must be finally discharged.

May v. State, 460 So. 2d 778, 780-81 (Miss. 1984)

¶196. The *May* court went on to note the fundamental difference between this standard and that of a challenge to the weight of the evidence:

The motion for a new trial is a different animal. While the motion for judgment of acquittal notwithstanding the verdict presents to the trial court a pure question of law, the motion for a new trial is addressed to the trial court's sound discretion. . . . As distinguished from the j.n.o.v. motion, here the defendant is not seeking final discharge. He is asking that the jury's guilty verdict be vacated on grounds related to the weight of the evidence, not its sufficiency, and may be retried consistent with the double jeopardy clause.

May, 460 So. 2d 781 (citing *Neal v. State*, 451 So. 2d 743, 760 (Miss. 1984) and *Tibbs v. Florida*, 457 U.S. 31, 39 (1982)).

¶197. Examining the record in the current case, it is apparent that the verdicts on Counts I and II were not against the overwhelming weight of the evidence. The facts, as recounted throughout this opinion, demonstrate that there was substantial evidence, albeit circumstantial in this case, to support the verdict of the jury. With the appropriate deference due the verdict of the jury, the verdict is not against the overwhelming weight of the evidence.

XX. Whether the Trial Court erred in overruling the Appellant's motion for a new trial.

¶198. Hughes' 20th assigned error is that the trial court judge erred in refusing to grant ~~Mr.~~ Hughes a new trial. Almost all the issues raised in Hughes' motion for a new trial have been raised on appeal and discussed in this opinion. Hughes cites nothing in support of this assignment but refers the Court to Issue XIX above, which in turn, directs the court to Issue XVII. In short, Hughes' contentions on this issue have been thoroughly addressed and rejected elsewhere.

XXI. Whether the cumulative effect of the Trial Court's errors denied Appellant a fundamentally fair trial as guaranteed by the Sixth and Fourteenth Amendments to the U.S. Constitution.

¶199. Hughes contends that the cumulative errors throughout his trial, when considered together, so prejudiced his case as to deny him a fair trial. When the combination of specific errors, while harmless in

each instance, accrued to such an extent that a defendant was denied a fair trial, this Court will reverse for cumulative error. *Coleman v. State*, 697 So. 2d 777, 787 (Miss. 1997)(citing *Jenkins v. State*, 607 So. 2d 1171, 1183-84 (Miss. 1992); *Hansen v. State*, 592 So. 2d 114, 153 (Miss. 1991)).

¶200. There were two errors in this trial: the inclusion of the census data for the state of Mississippi as error (Issue VIII, *supra*); and, the admitting of Investigator Davis' lay opinion testimony on the knives (Issue IX, *supra*), both of which were harmless. However, these two assignments are completely independent. Thus, there is no aggregation of harmless error and no cumulative error in this case.

XXII. Whether the imposition of the death sentence in disproportionate in this case to other death sentences upheld by the court and is cruel and inhuman punishment in violation of the Eighth and Fourteenth Amendments to the U.S. Constitutions and Article III, Section 28 of the Mississippi Constitution (1890).

¶201. Hughes' final assignment of error mirrors the requirement under Miss. Code Ann. § 99-19-105 (Supp. 1998) that this Court review the imposition of the death penalty to ensure that its implementation is proportionate. This comparison is made from cases in which the death sentence was imposed and was reviewed on appeal by this Court. In making this individualized comparison, this Court considers the crime and the defendant. *Wilcher v. State*, 697 So. 2d 1087, 1113 (Miss. 1997)(citing *Cabello v. State*, 471 So. 2d 332, 350 (Miss. 1985)).

¶202. Hughes' primary complaint is the fact that the State's case is circumstantial. Hughes contends this, *a priori*, renders the sentence of death disproportionate. Hughes urges this Court to remand the case for imposition of a life sentence in light of the circumstantial nature of the State's proof.

¶203. The circumstantial nature of the State's case has been addressed previously when Hughes challenged both its weight and legal sufficiency. On proportionality review, this Court necessarily considers the verdict of guilt in the lower court as valid, and inquires whether the sentence, assuming guilt, is disproportionate to the crime committed.

¶204. Otherwise, this Court would essentially be issuing a compromise verdict based on its own estimation of the State's proof. As explained previously, the State's evidence in this case is legally sufficient and not against the overwhelming weight of the evidence. Thus, the question becomes whether the sentence imposed by the jury is disproportionate to the crime, not whether the sentence is disproportionate to this Court's confidence in the State's case. Either the evidence sustains the verdict or it does not. Compromise verdicts on appeal based on this Court's estimation of the proof should not be entertained.

¶205. At least two courts have addressed this issue directly and found that a purely circumstantial case does not preclude the death penalty. In *Commonwealth v. Yarris*, the Pennsylvania Supreme Court stated:

First, it is asserted that the death penalty cannot be imposed in cases where a conviction for murder of the first degree rests upon circumstantial evidence. Specifically, appellant contends that circumstantial evidence in itself constitutes an overriding mitigating circumstance for purposes of the sentencing statute such that imposition of the death penalty is per se precluded. Such a contention is patently without basis, and finds no support in the sentencing statute. . . .

Commonwealth v. Yarris, 549 A.2d 513, 529(Pa. 1988). Accord, *Commonwealth v. Wallace*, 561

A.2d 719, 728 (Pa. 1989).

¶206. Similarly, the Ohio Supreme Court recognized:

The fact, however, that the evidence against appellant was all circumstantial is not to be considered as a mitigating factor. A conviction based on purely circumstantial evidence is no less sound than a conviction based upon direct evidence. Consideration of circumstantial evidence as a mitigating factor would inevitably lead to undercutting the underlying conviction itself by implying that a conviction based on circumstantial evidence is inherently less reliable than a conviction based on direct evidence.

State v. Apanovitch, 514 N.E.2d 394, 402 (Oh. 1987). *Accord*, *State v. Durr*, 568 N.E.2d 674, 682 (Oh. 1991).

¶207. In *Wiggins v. State*, the dissent, equated the *quanta* of the State's proof with the proportionality of the sentence:

Under the present death penalty statute, this Court has never upheld a death sentence on evidence as weak as that introduced in this case. In the numerous cases where we have upheld the death sentence, there was little question that the defendant committed the murder as a principal in the first degree. Evidence which supported these findings included a confession by the defendant, eyewitness testimony to the incident, and fingerprints of the defendant at the scene coupled with the defendant's possession of the victim's property. Where the defendant's participation in the murder as a principal in the first degree is based upon a very weak case of circumstantial evidence, a sentence of death is disproportionate.

Wiggins v. State, 597 A.2d 1359, 1376-77 (Md. 1991)(Eldridge, J., dissenting)(citations omitted).

¶208. Obviously, the determination as to whether the circumstantial nature of the State's case is properly considered as a mitigation element when considering the sentence on appeal is for this Court to decide. But, for the reasons previously stated, proportionality review should not include an inquiry into the nature of the proof.

¶209. Hughes also contends that the sentence is disproportionate in light of his reduced mental capacity. At best, Hughes' evidence of diminished capacity is that his intelligence quotient is below average. This Court has categorically stated that diminished capacity is no impediment to a death sentence. *Blue v. State*, 674 So. 2d at 1235 (citing *Foster v. State*, 639 So. 2d 1263, 1303 (Miss. 1994)).

¶210. On January 9, 1996, Galloway was a healthy teenager with an apparently long future ahead of her. Now, all that remains of Galloway is the morbid detritus of her murder and her family's loss, grief and anger at her kidnapping and brutal rape and murder. Galloway's crime was breaking down on her way to school, and trusting in the apparent kindness of a random passer-by.

¶211. Galloway was beaten, raped, stabbed and strangled. Her chest was then set on fire after she was dead. This degradation culminated when her body was dumped in an abandoned house and left to rot. Examining the past death sentences imposed for the crime of kidnapping and rape, it is clear that the punishment fits the crime in this case. See *Evans v. State*, 725 So. 2d 613 (Miss. 1997); *Crawford v. State*, 716 So. 2d 1028 (Miss. 1998); *Walker v. State*, 671 So. 2d 581 (Miss. 1995); *Williams v. State*, 684 So. 2d 1179 (Miss. 1996).

¶212. A jury of William Ray Hughes' peers properly weighed his crime against the mitigation offered and found that Hughes deserved to die. The facts and circumstances of his case are not so different from other capital murder cases so as to render the jury's verdict of death bizarre, inappropriate or an obvious product of passion or prejudice.

CONCLUSION

¶213. William Ray Hughes received a fair, albeit not perfect, trial. None of the errors assigned by Hughes amount to more than harmless error, although the use of local census data to supplement frequency statistics offered by DNA experts (Issue VIII, *supra*) and using a lay person to comment on the similarity of knives in evidence (Issue IX, *supra*) should be barred. Further, Hughes suffered no prejudice because of extraneous inadmissible witness statements concerning prior bad acts (Issue III(c), *supra*.) We have conducted a thorough review of record and find nothing that warrants reversal of either the guilty verdict or the sentence of death. For the foregoing reasons, the judgment and sentence pronounced in the Tate County Circuit Court are hereby affirmed.

¶214. COUNT I: CONVICTION OF CAPITAL MURDER AND SENTENCE OF DEATH BY LETHAL INJECTION AFFIRMED. EXECUTION DATE TO BE SET WITHIN SIXTY (60) DAYS OF FINAL DISPOSITION OF THIS CASE PURSUANT TO MISS. CODE ANN, SECTION 99-19-105(7)(SUPP.1998) AND M.R.A.P.41(a). COUNT II: CONVICTION OF RAPE AND SENTENCE OF LIFE IMPRISONMENT IN THE CUSTODY OF THE MISSISSIPPI DEPARTMENT OF CORRECTIONS AFFIRMED.

PRATHER, C.J., SMITH AND MILLS, JJ., CONCUR. BANKS, J., DISSENTS WITH SEPARATE WRITTEN OPINION JOINED BY SULLIVAN, P.J., AND McRAE, J. PITTMAN, P.J., NOT PARTICIPATING.

BANKS, JUSTICE, DISSENTING:

¶215. Because I disagree with the majority's conclusion that the admission of the census data was merely harmless error, I respectfully dissent.

¶216. The trial court in this case allowed into evidence statistical data for Tate County. This Court has held that statistical evidence should be admitted where relevant to show the frequency with which a given match occurs randomly in the population. *Hull v. State*, 687 So. 2d 708, 728 (Miss. 1996). It is my view that the census data was irrelevant and misleading. Thus, it should not have been admitted.

¶217. The majority points out that applying a RMP of 1 in 86,000 to a greater base population results in a higher probability of someone else within that population having a match. A New York court has found that, in determining how often a DNA profile similar to that of the defendant occurs, the prosecution is limited to using the most conservative of all estimates. *People v. Mohit*, 579 N.Y.S.2d 990, 999 (N.Y. Westchester County Ct. 1992). By using the most conservative of all possible estimates, the prosecution may adequately demonstrate how unusual it would be for someone else to have the same DNA profile, while at the same time avoiding any possible prejudice to the defendant. *Id.*

¶218. In this case, using the general population as the reference population, as opposed to Tate County, would appear to be more conservative in that it increases the size of the population in which Hughes' profile might occur. The census data referred to fails to show the frequency with which a match might occur in a given population, as permitted by *Hull*, and is, therefore, irrelevant.

¶219. I also believe the census data is misleading to the jury in that it creates an inference that Hughes was the donor of the DNA, creating the potential for exaggerated impact of the DNA evidence on the jury. The census data, by itself, presents the inference that if only 1 in 86,000 is a match, the chance of Hughes being the donor is greater because there are fewer than 86,000 people in Tate County, when in actuality it is not. It is important to note that 1 in 86,000 is not absolute, but refers to the probability that a random person picked from the reference population would have matching DNA. Evidence of probability has no relation to particularized facts in existence, for example, the probability that a flipped coin will land heads up is one in two. After a coin has been flipped ten times and has landed tails up each time the probability that it will land heads up on the eleventh flip is still one in two. The probability remains the same after the 100th and 1,000th flips, ad infinitum. Thus, it is wrong to suggest, that because the probability of finding a match is one in 86,000, one would have to test 86,000 to find a match. A match could be found in the very next test on a person next door without destroying the validity of the probability analysis.

¶220. Evidence such as that presented concerning the census data in Tate County can unduly influence a jury, and because of the potential for possible prejudicial impact on the jury, we should be mindful of admitting information which may mischaracterize the import of scientific evidence.

¶221. Because of the power of scientific evidence and specifically DNA evidence to persuade, I cannot say that this error in presentation is harmless beyond a reasonable doubt. For that reason, I am compelled to dissent from the affirmance of this judgment.

SULLIVAN, P.J., AND McRAE, J., JOIN THIS OPINION.

Appendix A

Polymerase Chain Reaction (PCR)

DNA Testing

In order to gain the necessary understanding of the process, it is unfortunately necessary to return to some rather technical, though basic elements of biology. A rational and very simplified explanation will be attempted.⁽¹⁵⁾

The DNA molecule is a remarkably stable structure, visualized as much like a twisted ladder or spiral staircase. The "sides" of the "ladder" are repeating phosphate and sugar sequences. The "rungs" of the "ladder" are formed by a pair of organic basis joined together. There are four organic bases found in DNA: adenine (A), guanine (G), thymine (T), and cytosine (C). Because the distance between the "sides" of the "ladder" is uniform, the bases can only bond together in certain ways. A and T can bond together, and G and C can bond together; therefore, the only base pairs that can exist are A-T, T-A, G-C, or C-G. Any other combinations would cause the "sides" or the "ladder" to be too far apart or too close together, and the DNA molecule would become unstable.

Each "side" of the "ladder" contributes one of the organic bases in the base pair "rungs". If the "ladder" was split down the middle, between the two bases in each "rung," two complementary strands of DNA would result. This is, if one half of the "ladder" had a sequence of bases on its "side" that read "A--G--A-- C--T--G--." then the complementary strand from the other half of the "ladder" would read "T--C--T--G--A--C."

Polk, 612 So. 2d at 388.

Each two part "rung" is referred to as a "base pair". Each molecule of human DNA has over three (3) billion base pairs, the vast majority of which is identified or "shared DNA", and comprises the organic coding which gives form to the common traits of human beings as a species.

What makes DNA testing and matching possible, however, is the fact that within each person's DNA sequence, several million base pairs change from individual to individual, controlling the specifics which make us unique individuals. These regions of the helix are referred to as polymorphic, and provide the sequencing which allows comparison DNA.

The mere existence of these variances, however, is useless without a method of segregation and identification. The second part of DNA testing relies on certain enzymes to accurately tell scientists when they are dealing with a certain sequence. In RFLP testing, these enzymes essentially cut the DNA strand at points determined by the base pair sequence, as explained in **Polk**,

Just as in this country we read in a standard manner, left to right, the base "codes" along one side of the DNA "ladder" must also be read in a standard direction. For instance, the restriction enzyme that recognizes the base sequence "A--T--G--C--T--A," may cut that sequence between the "G--C." Such an enzyme would, then, cut the DNA every time that it recognized the same sequence "A--T--G--C--T--A" along the sides of the DNA "ladder". This would leave the side "ladder" in two shorter pieces: "A--T--G" and "C--T--A". However, the same restriction enzyme would *not* cut the sequence "A--T--C--G--T--A", because, reading left to right, the resulting fragments would be "A--T--C" and "G--T--A" . . .

Polk, 612 So. 2d at 389.

The RFLP process then measures the length of the strands, and by comparing the strands so generated, scientists may determine a "match" with a very high degree of resolution typically resulting in the huge numbers such as 1 in 500,000,000. *See generally Polk*, 612 So. 2d at 388.

It is at this point that PCR begins to differ. Rather than cut the DNA up into varying length strands, the PCR process targets specific areas of the DNA ladder and replicates them, making it possible to test for the presence or absence of specific known targets. Some additional background is necessary to describe the process.

The entire DNA complement of a human being is called a "genome". The genome consists of twenty-three (23) pairs of chromosomes, which in turn contain many genes, which are in turn made up of the actual DNA. Every cell in the body which contains a nucleus, or is nucleic, contains this information. Non-reproductive cells, "somatic cells", are termed "diploid" because they contain twenty-two (22) pairs of non-sex chromosomes and one pair of sex chromosomes. The sex cells, i.e. sperm and egg, are termed "haploid" because they contain only half the set, having eleven (11) non-sex chromosomes and one (1) sex chromosome. Each parent contributes a haploid cell to create an embryo at conception.

These single chromosomes match up during human development, with paired gene sequences on each single chromosome contributed from the male and female. Each chromosome contains genes at certain places, called "loci". During the matching process, each chromosome from the father matches the paired loci from the mother and creates a homologous chromosome pair, reflecting a particular gene from both the mother and the father. When the particular matching genes are coded from certain characteristics, they are called "alleles". A person inherits an allele from each parent. Thus, a homologous chromosome pair might code A-a, heterozygous at the A locus, b-b, homozygous recessive at the b locus. These matches are often termed in numbers as well, such as 1,2, 1,3 or 2, 1,3. Perhaps a more cogent explanation was provided by the court in *United States v. Gaines*:

Each possible arrangement of base pairs that occurs at a polymorphic site is referred to as an allele. Alleles can result from differences in a single base pair, differences in multiple base pairs, or differences in the number of base pairs that comprise a site.

The combination of alleles from corresponding sites on a chromosome pair is sometimes referred to as the site's genotype. (footnote and citation omitted.) One allele for each single locus genotype is inherited from each parent. If both parents contribute the same type of allele, the child's genotype is considered to be homozygous. If each parent contributes a different type of allele, the child's genotype is considered to be heterozygous. To illustrate, if only two alleles for a locus are found in the population, A and a, two homozygous genotypes, AA and aa, and one heterozygous genotype, Aa, will be found in the population. Although an individual's genotype consists of either two copies of the same allele or one copy of each of two different alleles, many different alleles may be found in the population for a single locus.

United States v. Gaines, 979 F.Supp. 1429, 1432 (S.D Fla.1997)(quoting *United States v. Shea*, 957 F.Supp. 331, 333(D.N.H.1997) aff'd. 159 F.3d 37 (1st Cr.1998)).

What the first part of the PCR test does is to copy certain known alleles, often termed "markers" or target sequences, by replicating the DNA base sequence which comprises the target gene. This amplification is accomplished using primers and an enzyme called Taq Polymerase, which is similar to the enzyme used in

living organisms to replicate DNA during cell division.

The process involves denaturing the sample DNA, which simply means heating it to split the rungs of the DNA ladder, and then applying a primer which bonds to a particular nucleotide sequence on the rung, which, like a restriction enzyme in RFLP, marks the bounds of the target sequence. The Taq Polymerase enzyme now sets about constructing the complementary base pairing for the separated "rungs" wherever the primer is "attached". The sample is cooled and the separate strands find their corresponding pairs. Thus, the DNA strand is replicated into two duplicate strands with an exact copy of the target sequence. This process is repeated until a billion fold increase in DNA is achieved. Then the actual testing begins.

Recall that each strand of DNA composed of A T G C is complementary and will only bind with its appropriate match. Once replication is complete, the DNA is separated into two separate complementary strands, or "denatured", once again. At this point specific probes are introduced which bind with their complementary portion of the DNA sequence. The probes are simply synthetic, one sided sequences of DNA which comprise the "target" gene. Thus, in our above example, a probe would be a strand of DNA with T-A-C, unattached from its complement. Chemicals present produce a blue dot when a specific probe binds with its complementary sequence, producing a blot for each allele that is present in the replicated DNA. Thus, if T-A-C and its complement sequence A-T-G comprise the allele designated A, then a blue dot would appear when the A-T-G marker was added, signifying to the scientist that the allele variant A was present. Obviously, this is a greatly simplified explanation, and, in reality, there may be numerous allelic variants with complex base pair coding at one loci.

Thus, PCR testing produces a simple yes or no answer for the presence of a particular target sequence in the replicated DNA. The polymorphic alleles tested in the various PCR processes all occur with varying frequency within the general population. Thus, the more markers used, the greater the resolution of the test, because, assuming the markers are independently inherited, the product rule can be used to greatly increase the resolution of the test. The product rule simply states that the overall probability of multiple markers being present in an individual is the product of the probabilities of each individual marker appearing.

APPENDIX B

DEATH CASES AFFIRMED BY THIS COURT

Smith v. State, --- So. 2d --- (Miss. 1998).

Crawford v. State, 716 So. 2d 1028 (Miss. 1998).

Doss v. State, 709 So. 2d 369 (Miss. 1996).

Underwood v. State, 708 So. 2d 18 (Miss. 1998).

Holland v. State, 705 So. 2d 307 (Miss. 1997).

Wells v. State, 698 So. 2d 497 (Miss. 1997).

Wilcher v. State, 697 So. 2d 1123 (Miss. 1997).

Wilcher v. State, 697 So. 2d 1087 (Miss. 1997).

Wiley v. State, 691 So. 2d 959 (Miss. 1997).

Brown v. State, 690 So. 2d 276 (Miss. 1996).

Simon v. State, 688 So. 2d 791 (Miss.1997).

Jackson v. State, 684 So. 2d 1213 (Miss. 1996).

Williams v. State, 684 So. 2d 1179 (Miss. 1996).

Davis v. State, 684 So. 2d 643 (Miss. 1996).

Taylor v. State, 682 So. 2d. 359 (Miss. 1996).

Brown v. State, 682 So. 2d 340 (Miss. 1996).

Blue v. State, 674 So. 2d 1184 (Miss. 1996).

Holly v. State, 671 So. 2d 32 (Miss. 1996).

Walker v. State, 671 So. 2d 581(Miss. 1995).

Russell v. State, 670 So. 2d 816 (Miss. 1995).

Ballenger v. State, 667 So. 2d 1242 (Miss. 1995).

Davis v. State, 660 So. 2d 1228 (Miss. 1995).

Carr v. State, 655 So. 2d 824 (Miss. 1995).

Mack v. State, 650 So. 2d 1289 (Miss. 1994).

DEATH CASES AFFIRMED BY THIS COURT

(continued)

Chase v. State, 645 So. 2d 829 (Miss. 1994).

Foster v. State, 639 So. 2d 1263 (Miss. 1994).

Conner v. State, 632 So. 2d 1239 (Miss. 1993).

Hansen v. State, 592 So. 2d 114 (Miss. 1991).

**Shell v. State*, 554 So. 2d 887 (Miss. 1989), *Shell v. Mississippi*, 498 U.S. 1 (1990) reversing, in part, and remanding, *Shell v. State*, 595 So. 2d 1323 (Miss. 1992) remanding for new sentencing hearing.

Davis v. State, 551 So. 2d 165 (Miss. 1989).

Minnick v. State, 551 So. 2d 77 (Miss. 1989).

**Pinkney v. State*, 538 So. 2d 329 (Miss. 1989), *Pinkney v. Mississippi*, 494 U.S. 1075 (1990) vacating and remanding *Pinkney v. State*, 602 So. 2d 1177 (Miss. 1992) remanding for new sentencing hearing.

**Clemons v. State*, 535 So. 2d 1354 (Miss. 1988), *Clemons v. Mississippi*, 494 U.S. 738 (1990) vacating and remanding, *Clemons v. State*, 593 So. 2d 1004 (Miss. 1992) remanding for new sentencing hearing.

Woodward v. State, 533 So. 2d 418 (Miss. 1988).

Nixon v. State, 533 So. 2d 1078 (Miss. 1987).

Cole v. State, 525 So. 2d 365 (Miss. 1987).

Lockett v. State, 517 So. 2d 1346 (Miss. 1987).

Lockett v. State, 517 So. 2d 1317 (Miss. 1987).

Faraga v. State, 514 So. 2d 295 (Miss. 1987).

**Jones v. State*, 517 So. 2d 1295 (Miss. 1987), *Jones v. Mississippi*, 487 U.S. 1230 (1988) vacating and remanding, *Jones v. State*, 602 So. 2d 1170 (Miss. 1992) remanding for new sentencing hearing.

DEATH CASES AFFIRMED BY THIS COURT

(continued)

Wiley v. State, 484 So. 2d 339 (Miss. 1986).

Johnson v. State, 477 So. 2d 196 (Miss. 1985).

Gray v. State, 472 So. 2d 409 (Miss. 1985).

Cabello v. State, 471 So. 2d 332 (Miss. 1985).
Jordan v. State, 464 So. 2d 475 (Miss. 1985).
Wilcher v. State, 455 So. 2d 727 (Miss. 1984).
Billiot v. State, 454 So. 2d 445 (Miss. 1984).
Stringer v. State, 454 So. 2d 468 (Miss. 1984).
Dufour v. State, 453 So. 2d 337 (Miss. 1984).
Neal v. State, 451 So. 2d 743 (Miss. 1984).
Booker v. State, 449 So. 2d 209 (Miss. 1984).
Wilcher v. State, 448 So. 2d 927 (Miss. 1984).
Caldwell v. State, 443 So. 2d 806 (Miss. 1983).
Irving v. State, 441 So. 2d 846 (Miss. 1983).
Tokman v. State, 435 So. 2d 664 (Miss. 1983).
Leatherwood v. State, 435 So. 2d 645 (Miss. 1983).
Hill v. State, 432 So. 2d 427 (Miss. 1983).
Pruett v. State, 431 So. 2d 1101 (Miss. 1983).
Gilliard v. State, 428 So. 2d 576 (Miss. 1983).
Evans v. State, 422 So. 2d 737 (Miss. 1982).
King v. State, 421 So. 2d 1009 (Miss. 1982).
Wheat v. State, 420 So. 2d 229 (Miss. 1982).
Smith v. State, 419 So. 2d 563 (Miss. 1982).
Johnson v. State, 416 So. 2d 383 (Miss.1982).

DEATH CASES AFFIRMED BY THIS COURT

(continued)

Edwards v. State, 413 So. 2d 1007 (Miss. 1982).

Bullock v. State, 391 So. 2d 601 (Miss. 1980).

Reddix v. State, 381 So. 2d 999 (Miss. 1980).

Jones v. State, 381 So. 2d 983 (Miss. 1980).

Culberson v. State, 379 So. 2d 499 (Miss. 1979).

Gray v. State, 375 So. 2d 994 (Miss. 1979).

Jordan v. State, 365 So. 2d 1198 (Miss. 1978).

Voyles v. State, 362 So. 2d 1236 (Miss. 1978).

Irving v. State, 361 So. 2d 1360 (Miss. 1978).

Washington v. State, 361 So. 2d 61 (Miss. 1978).

Bell v. State, 360 So. 2d 1206 (Miss. 1978).

* Case was originally affirmed in this Court but on remand from U. S. Supreme Court, case was remanded by this Court for a new sentencing hearing.

DEATH CASES REVERSED AS TO GUILT PHASE

AND SENTENCE PHASE

Kolberg v. State, 704 So. 2d 1307 (Miss. 1997).

Snelson v. State, 704 So. 2d 452 (Miss. 1997).

Fusilier v. State, 702 So. 2d 388 (Miss. 1997).

Howard v. State, 701 So. 2d 274 (Miss. 1997).

Lester v. State, 692 So. 2d 755 (Miss. 1997).

Hunter v. State, 684 So. 2d 625 (Miss. 1996).

Lanier v. State, 684 So. 2d 93 (Miss. 1996).

Giles v. State, 650 So. 2d 846 (Miss. 1995).

Duplantis v. State, 644 So. 2d 1235 (Miss. 1994).

Harrison v. State, 635 So. 2d 894 (Miss. 1994).

Butler v. State, 608 So. 2d 314 (Miss. 1992).

Jenkins v. State, 607 So. 2d 1171 (Miss. 1992).

Abram v. State, 606 So. 2d 1015 (Miss. 1992).

Balfour v. State, 598 So. 2d 731 (Miss. 1992).
Griffin v. State, 557 So. 2d 542 (Miss. 1990).
Bevill v. State, 556 So. 2d 699 (Miss. 1990).
West v. State, 553 So. 2d 8 (Miss. 1989).
Leatherwood v. State, 548 So. 2d 389 (Miss. 1989).
Mease v. State, 539 So. 2d 1324 (Miss. 1989).
Houston v. State, 531 So. 2d 598 (Miss. 1988).
West v. State, 519 So. 2d 418 (Miss. 1988).
Davis v. State, 512 So. 2d 1291 (Miss. 1987).
Williamson v. State, 512 So. 2d 868 (Miss. 1987).
Foster v. State, 508 So. 2d 1111 (Miss. 1987).

DEATH CASES REVERSED AS TO GUILT PHASE

AND SENTENCE PHASE

(continued)

Smith v. State, 499 So. 2d 750 (Miss. 1986).
West v. State, 485 So. 2d 681 (Miss. 1985).
Fisher v. State, 481 So. 2d 203 (Miss. 1985).
Johnson v. State, 476 So. 2d 1195 (Miss. 1985).
Fuselier v. State, 468 So. 2d 45 (Miss. 1985).
West v. State, 463 So. 2d 1048 (Miss. 1985).
Jones v. State, 461 So. 2d 686 (Miss. 1984).
Moffett v. State, 456 So. 2d 714 (Miss. 1984).
Lanier v. State, 450 So. 2d 69 (Miss. 1984).
Laney v. State, 421 So. 2d 1216 (Miss. 1982).

**DEATH CASES REVERSED
AS TO PUNISHMENT AND REMANDED
FOR RESENTENCING TO LIFE IMPRISONMENT**

Reddix v. State, 547 So. 2d 792 (Miss. 1989).

Wheeler v. State, 536 So. 2d 1341 (Miss. 1988).

White v. State, 532 So. 2d 1207 (Miss. 1988).

Bullock v. State, 525 So. 2d 764 (Miss. 1987).

Edwards v. State, 441 So. 2d 84 (Miss. 1983).

Dycus v. State, 440 So. 2d 246 (Miss. 1983).

Coleman v. State, 378 So. 2d 640 (Miss. 1979).

**DEATH CASES REVERSED AS TO
PUNISHMENT AND REMANDED FOR A NEW TRIAL
ON SENTENCING PHASE ONLY**

Smith v. State, 724 So. 2d 280 (Miss. 1998).

Berry v. State, 703 So. 2d 269 (Miss. 1997).

Booker v. State, 699 So. 2d 132 (Miss. 1997).

Taylor v. State, 672 So. 2d 1246 (Miss. 1996).

**Shell v. State*, 554 So. 2d 887 (Miss. 1989), *Shell v. Mississippi*, 498 U.S. 1 (1990) reversing, in part, and remanding, *Shell v. State* 595 So. 2d 1323 (Miss. 1992) remanding for new sentencing hearing.

**Pinkney v. State*, 538 So. 2d 329 (Miss. 1989), *Pinkney v. Mississippi*, 494 U.S. 1075 (1990) vacating and remanding, *Pinkney v. State*, 602 So. 2d 1177 (Miss. 1992) remanding for new

sentencing hearing.

**Clemons v. State*, 535 So. 2d 1354 (Miss. 1988), *Clemons v. Mississippi*, 494 U.S. 738 (1990) vacating and remanding, *Clemons v. State*, 593 So. 2d 1004 (Miss. 1992) remanding for new sentencing hearing.

**Jones v. State*, 517 So. 2d 1295 (Miss. 1987), *Jones v. Mississippi*, 487 U.S. 1230 (1988) vacating and remanding, *Jones v. State*, 602 So. 2d 1170 (Miss. 1992) remanding for new sentencing hearing.

Russell v. State, 607 So. 2d 1107 (Miss. 1992).

Holland v. State, 587 So. 2d 848 (Miss. 1991).

Willie v. State, 585 So. 2d 660 (Miss. 1991).

Ladner v. State, 584 So. 2d 743 (Miss. 1991).

Mackbee v. State, 575 So. 2d 16 (Miss. 1990).

Berry v. State, 575 So. 2d 1 (Miss. 1990).

Turner v. State, 573 So. 2d 657 (Miss. 1990).

State v. Tokman, 564 So. 2d 1339 (Miss. 1990).

Johnson v. State, 547 So. 2d 59 (Miss. 1989).

Williams v. State, 544 So. 2d 782 (Miss. 1989); *sentence aff'd* 684 So. 2d 1179 (Miss. 1996)

**DEATH CASES REVERSED AS TO
PUNISHMENT AND REMANDED FOR A NEW TRIAL
ON SENTENCING PHASE ONLY**

(continued)

Lanier v. State, 533 So. 2d 473 (Miss. 1988).

Stringer v. State, 500 So. 2d 928 (Miss. 1986).

Pinkton v. State, 481 So. 2d 306 (Miss. 1985).

Mhoon v. State, 464 So. 2d 77 (Miss. 1985).

Cannaday v. State, 455 So. 2d 713 (Miss. 1984).

Wiley v. State, 449 So. 2d 756 (Miss. 1984); resentencing affirmed, *Wiley v. State*, 484 So. 2d 339 (Miss. 1986), *cert. denied Wiley v. Mississippi*, 479 U.S. 1036 (1988); resentencing ordered, *Wiley v. State*, 635 So. 2d 802 (Miss. 1993) following writ of habeas corpus issued pursuant to *Wiley v. Puckett*, 969 So. 2d 86, 105-106 (5th Cir. 1992); resentencing affirmed, *Wiley v. State*, 95-DP-00149, February 13, 1997 (rehearing pending).

Williams v. State, 445 So. 2d 798 (Miss. 1984).

* Case was originally affirmed in this Court but on remand from U. S. Supreme Court, case was remanded by this Court for a new sentencing hearing.

1. Master Sergeant Sammy Aldridge of the Mississippi Department of Public Safety (Highway Patrol) contacted Mrs. Rowe first on January 24, 1996, after she called a "hot line" set up for this case. At the time of this initial interview, law enforcement had no real suspects. Some pictures of "potential suspects" were shown to Mrs. Rowe, all of which she denied as being the driver she saw on January 9. See Issue III(A)*infra*.

2. Mrs. Julie Hughes Sanders was the widow of William Ray Hughes' father (Eddie Hughes, then deceased), with whom William Ray Hughes was living at the time. Prior to the trial of Hughes, Julie Hughes Sanders remarried and took the name Sanders from her new husband. Julie Hughes will be referred to as Mrs. Hughes Sanders.

3. Hughes refers to Juror 238 in his assignment of error, but in his brief refers to this juror by name as Jennifer Sheffield. The record indicates Jennifer Sheffield was actually Juror 14. A review of the record plainly shows Hughes is actually referring to Jennifer Sheffield and used an incorrect number. For purposes of this assignment of error, Jennifer Sheffield is the juror referred to by Hughes as "238" and Shirley Bethay is the juror referred to as "263". To avoid confusion, actual names will be used.

4. The District Attorney was unaware of these pictures until discovered on Hughes' cross-examination of Mrs. Rowe.

5. See *Robinson v. State*, 508 So. 2d 1067, 1071 (Miss. 1987)(citing *Morris v. State*, 436 So. 2d 1381 (Miss. 1983), *Ford v. State*, 444 So. 2d 841 (Miss. 1984); *Barnes v. State*, 471 So. 2d 1218 (Miss. 1985)).

6. The racial breakdown here included only white and black classifications.

7. For an insightful and accessible explanation of the mathematics of this and other common misconceptions about DNA probability errors, see Jonathan J. Koehler, *Error and Exaggeration in the Presentation of DNA Evidence at Trial*, 34 *Jurimetric J.* 21, 34-5 (Fall 1993).

8. Professor Koehler gives the following example: "To estimate the number of people who would need to be tested before we might expect to find a match on a trait common to one in X people, we must compute the smallest N such that $(1 - 1/X)N < .50$. [] Thus, for F(Traits) = one in 100, we would expect to find a match after testing 69 people. If 100 people were tested, the probability that at least one would match is about 63%. Because the N that satisfies the equation will always be smaller than the denominator of F(Traits), the numerical conversion error exaggerates the number of people who would need to be tested before a match may be expected. This, in turn, exaggerates the probative strength of the DNA match." Jonathan J. Koehler, *Error and Exaggeration in the Presentation of DNA Evidence at Trial*, 34 *Jurimetric J.* 21, 34-5 (Fall 1993) (footnotes omitted).

9. See generally Richard Lempert, *After the DNA Wars: Skirmishing with NRC II*. 37 *Jurimetrics J.* 439 (Summer 1997).

10. PCR actually refers to a preliminary amplification method of copying the DNA, and not the actual test, which is based on matching certain allele pairs. This is discussed more fully *infra*, but for simplicity the entire process will be addressed as PCR.

11. In *Polk* this Court explained that questions on DNA admissibility go to admissibility and not weight. *Polk*, 612 So. 2d at 390 n.2.

12. See Appendix A for a detailed discussion of PCR DNA testing.

13. The specifics of the statistical analysis used by GenTest are discussed more fully under the heading Statistics, *infra*.

14. Dr. Hayne was qualified as an expert by the trial court under M.R.E. 702. During *voir dire* Dr. Hayne testified that he has performed from 8,000 to 9,000 forensic examinations. Hughes accepted Dr. Hayne as an expert in the field of forensic pathology without objection.

15. For an excellent detailed outline of RFLP and PCR testing procedures and technical information on DNA in general, see Kamrin T. MacKnight, *The Polymerase Chain Reaction (PCR); The Second Generation Analysis Methods Takes the Stand*, 9 *Santa Clara Computer & High Tech. L.J.* 287 (March, 1993)