Evidence: Daubert

Judge Robert C. Ervin

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In 2011, the General Assembly amended **Rule 702 of the Rules of Evidence** and adopted the **federal Daubert standard**, which gives trial court judges a “gatekeeping” role when admitting expert opinion testimony.

State v. Gray, 815 S. E. 2d 736 (2018)

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Rule 702’s gatekeeping obligation was not intended to serve as a replacement for the adversary system.

Rather, vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof continue as traditional and appropriate means of attacking shaky, but admissible evidence.

State v. Gray, 815 S. E. 2d 736 (2018)

While in some instances a trial court's gatekeeping obligation may require a judge to question an expert witness to ensure his or her testimony is reliable, sua sponte judicial inquiry is not a prerequisite to the admission of expert testimony.

State v. Gray, 815 S. E. 2d 736 (2018)

Rule 702(a) has three main parts, and expert testimony must satisfy each to be admissible.

State v. Coleman, 803 S. E. 2d 820 (2017); State v. Daughtridge, 248 N. C. App. 707, 789 S. E. 2d 667 (2016)

First, the area of the proposed testimony must be based on scientific, technical or other specialized knowledge that will assist the trier of fact to understand the evidence or to determine a fact in issue.

State v. Coleman, 803 S. E. 2d 820 (2017)

THIS REQUIREMENT IS REFERRED TO AS THE RELEVANCY TEST OR INQUIRY.

Sneed v. Sneed, 820 S. E. 2d 536 (2018)

Second, the witness must be qualified as an expert by knowledge, skill, experience, training or education.

State v. Coleman, 803 S.E. 2d 820 (2017)

THIS REQUIREMENT IS REFERRED TO AS THE COMPETENCY TEST OR INQUIRY.

This portion of the rule focuses on the witness's competence to testify as an expert in the field of his or her proposed testimony.

State v. Daughtridge, 248 N. C. App. 707, 789 S. E. 2d 667 (2016)

Third, the testimony must meet the three-pronged reliability test that is new to the amended rule.

State v. Coleman, 803 S. E. 2d 820 (2017)

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THIS PORTION OF THE RULE IS KNOWN AS THE RELIABILITY TEST OR INQUIRY.

SO WHAT IS THE RELEVANCY TEST OR THE RELEVANCY INQUIRY?

As with any evidence, the testimony must meet the minimum standards for logical relevance that Rule 401 establishes.

State v. Daughtridge, 248 N. C. App. 707, 789 S. E. 2d 667 (2016)

But relevance means something more for expert testimony. In order to assist the trier of fact, expert testimony must provide insight beyond the conclusions that the jurors can readily draw from their ordinary experience.

An area of inquiry need not be completely incomprehensible to lay jurors without expert assistance before expert testimony becomes admissible.

State v. Thomas, 814 S. E. 2d 835 (2018); State v. Daughtridge, 248 N. C. App. 707, 789 S. E. 2d 667 (2016)

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To be helpful, though, that testimony must do more than invite the jury to substitute the expert’s judgment of the meaning of the facts of the case for its own.

State v. Thomas, 814 S. E. 2d 835 (2018); State v. Daughtridge, 248 N. C. App. 707, 789 S. E. 2d 667 (2016)

Expert testimony is properly admissible when it can assist the jury to draw certain inferences from facts because the expert is better qualified.

The test for admissibility is whether the jury can receive appreciable help from the expert witness.

State v. Vann, 821 S. E. 2d 282 (2018)

In State v. Daughtridge, 789 S. E. 2d 667 (2016), the defendant was charged with first degree murder. The State offered evidence from a medical examiner to the effect that the victim's death was a homicide.

In particular, the following exchange occurred:

Q. As a result of all the information that you took into consideration, did you form an opinion as to whether or not Simeka Daughtridge was the victim of homicide?

A. Yes.

Q. And based on all the information that you were provided as well as the testing that you performed yourself, what was your expert opinion as to whether or not she was the victim of a homicide?

A. In my opinion the manner of death is homicide.

On cross-examination, the following questions were asked:

Q. The information you had received was from law enforcement only, correct, as far as the–as to the cause and manner of death?

A. Yes.

Q. Outside of what law enforcement told you, is there anything about the wound itself that would indicate that it could not have been self-inflicted?

A. No.

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In Daughtridge, the Court of Appeals observed that:

Here Dr. Duval's opinion that Simeka's death was a homicide as opposed to a suicide appears to have been largely-if not entirely- based on his interpretation of non-medical information conveyed to him by law enforcement officers who were involved in the investigation of Simeka's death.

State v. Daughtridge, 789 S. E. 2d at 675-676.

The Court of Appeals continued:

It is difficult to escape the conclusion that his opinion on this specific issue was based not on such medical evidence but instead on statements from law enforcement officers about the results of their investigation-information that bore little, if any, connection to his own observations stemming from his autopsy of Simeka.

State v. Daughtridge, 789 S. E. 2d at 676

The Court of Appeals concluded that:

The State has failed to adequately explain how Dr. Duval was in a better position than the jurors to evaluate whether the results of the officers' investigation were more suggestive of a homicide than a suicide.

State v. Daughtridge, 789 S. E. 2d 667

THE EVIDENCE FAILED THE RELEVANCY TEST OR INQUIRY.

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Another example of the relevancy inquiry arose in State v. Vann, 821 S.E. 2d 282 (2018).

In Vann, the defendant was charged with the Class C alphabet assault.

The defense offered an expert witness to testify about the accuracy of eyewitness identifications. In part, the witness proposed to testify about the effect of the time factor and the disguise factor on identifications.

The time factor meant that the likelihood of an accurate identification increases the longer in time a witness has to view the perpetrator's face.

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The disguise factor noted that a disguise refers to anything covering the face of the perpetrator, which decreases the chance of an accurate identification later by an eyewitness.

The trial court in Vann sustained the State's objection to testimony concerning the time and disguise factors.

The Court of Appeals opined that "the trial court properly found the time and disguise concepts were common sense conclusions that would be of little if any benefit to the jury and excluded expert testimony on these two factors."

State v. Vann, 821 S. E. 2d 282 (2018)

THIS EVIDENCE FAILED THE “DUH TEST.”

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WHAT IS THE COMPETENCY TEST OR INQUIRY?

This portion of the rule focuses on the witness's competence to testify as an expert in the field of his or her proposed testimony. Whatever the source of the witness's knowledge, the question remains the same: Does the witness have enough expertise to be in a better position than the trier of fact to have an opinion on the subject?

State v. Shore, 804 S. E. 2d 606 (2017); State v. Daughtridge, 248 N. C. App 707 (2016)

IS KNOWLEDGE BASED ON RESEARCH OF OTHERS' MATERIALS SUFFICIENT?

The defendant contends that the expert's testimony was unreliable because she had not conducted her own research and instead relied on studies conducted by others. The defendant is essentially arguing that the trial court abused its discretion when it admitted the expert's testimony which was based on her review of research on delayed disclosures, combined with professional experience. Upon through review, we hold that this contention directly conflicts with the meaning of Rule 702, the Daubert line of cases, and our existing precedent.

State v. Shore, 804 S. E. 2d at 613 (2017)

YES IT IS.

IS KNOWLEDGE BASED ON EXPERIENCE SUFFICIENT?

The Daubert line of cases also stands for the proposition that no one denies that an expert might draw a conclusion from a set of observations based upon extensive and specialized experience. The principle that experience alone or experience combined with knowledge and training is sufficient to establish a proper foundation for reliable expert testimony is in line with our previous holdings….

State v. Shore, 804 S. E. 2d at 614 (2017)

YES.

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WHAT IS THE RELIABILITY TEST OR INQUIRY?

Rule 702(a) lists the following requirements:

The testimony is based upon sufficient facts and data.

The testimony is the product of reliable principles and methods.

The witness has applied the principles and methods reliably to the facts of the case.

DAUBERT FACTORS

In the context of scientific testimony, Daubert articulated five factors from a nonexhaustive list that can have a bearing on reliability:

1. Whether a theory or technique can be and has been tested?
2. Whether the theory or technique has been subjected to peer review and publication?
3. The theory or technique's known or potential rate of error.
4. The existence and maintenance of standards controlling the technique’s operation.
5. Whether the theory or technique has achieved general acceptance in its field?

State v. Shore, 804 S. E. 2d 606 (2017); State v. Turbyfill, 243 N. C. App. 183, 776 S. E. 2d 249 (2015).

OTHER RELIABILITY FACTORS CITED BY FEDERAL COURTS

The federal courts have articulated additional reliability factors that may be helpful in certain cases, including:

1. Whether experts are proposing to testify about matters growing naturally and directly out of research that they have conducted independent of the litigation;
2. Whether the expert has unjustifiably extrapolated from an accepted premise to an unfounded conclusion;
3. Whether the expert has adequately accounted for obvious alternative explanations;
4. Whether the expert is being as careful as he would be in his regular professional work outside of his paid litigation consulting;
5. Whether the field of expertise claimed by the expert is known to reach reliable results for the type of opinion the expert would give.

State v. Shore, 804 S. E. 2d 606 (2017); State v. Abrams, 248 N.C. App. 639, 789 S. E. 2d 863 (2016).

THE HOWERTON FACTORS ARE ALSO SUBJECT TO CONSIDERATION

In some cases, one or more factors that were listed in Howerton v. Arai Helmet, 358 N. C. 440, 597 S. E. 2d 674 (2004), may be useful as well.

Those factors include:

1. The use of established techniques;
2. The expert's professional background in the field;
3. The use of visual aids to help the jury evaluate the expert's opinions; and
4. Independent research conducted by the expert.

State v. Shore, 804 S. E. 2d 606 (2017); State v. Abrams, 248 N. C. App 639, 789, S. E. 2d 863 (2017).

OBSERVATIONS ON THE RELIABILITY TEST OR INQUIRY

The trial court has discretion in determining how to address the three prongs of the reliability test.

State v. Piland, 822 S. E. 2d 876 (2018)

The precise nature of the reliability inquiry will vary from case to case depending on the nature of the proposed testimony.

State v. Gray, 815 S. E. 2d 736 (2018)

The factors articulated in Daubert are part of a flexible inquiry and they do not form a definitive checklist.

State v. Barker, 809 S. E. 2d 171 (2017)

CONCLUSIONS OF THE EXPERT

When a trial court concludes that there is simply too great an analytical gap between the data and the opinion proffered, the court is not required to admit opinion evidence that is connected to existing data only by the ipse dixit of the expert.

State v. McPhaul, 808 S. E. 2d 294 (2017)

BECAUSE I SAID SO ISN'T ENOUGH!

SO, LET’S LOOK AT SOME CASES TO SEE HOW THIS WORKS.

In State v. McPhaul, 808 S. E. 2d 294 (2017), the State offered the testimony of a fingerprint expert. The expert testified that latent prints found on a truck and on evidence seized matched the defendant's known fingerprint impressions.

NO PROBLEM, RIGHT?

WRONG.

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The latent print examiner in McPhaul testified:

She uses the same examination technique as is commonly used in the field. (DAUBERT – GENERAL ACCEPTANCE FACTOR; HOWERTON-ESTABLISHED TECHNIQUES)

She employed this procedure while conducting her examination in this case.

She said that she used her training and experience to reach her conclusions. (HOWERTON-PROFESSIONAL BACKGROUND IN THE FIELD)

She used visual aids in her testimony. (HOWERTON FACTOR)

SO WHAT IS THE PROBLEM?

The expert testified that she compares the pattern type and minutia points of the latent print and known impressions until she is satisfied that there are sufficient characteristics and sequence of the similarities to conclude that the prints match.

The expert in McPhaul provided no such detail in testifying how she arrived at her actual conclusions in this case. Without further explanation for her conclusions, the expert implicitly asked the jury to accept her expert opinions that the prints matched.

State v. McPhaul, 808 S. E. 2d 294 (2017).

BECAUSE I SAY SO ISN'T ENOUGH.

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In State v. Babich, 797 S. E. 2d 359 (2017), the State offered a forensic chemist to testify concerning retrograde extrapolation to estimate the defendant's blood alcohol concentration in an habitual DWI case.

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The Court of Appeals had already observed in State v. Turbyfill, 243 N. C. App. 183, 776 S. E. 2d 249 (2015) that:

Blood alcohol extrapolation is a scientifically valid field, which principles have been tested, subjected to peer review and publication and undisputedly accepted in the scientific community and in our courts.

In Babich, the expert offered by the State:

Started with Babich’s known blood alcohol test of .07 at the police station.

This test was conducted one hour and forty five minutes after the arrest.

The expert then applied an average alcohol elimination rate – a conservative estimate of the rate at which the average person eliminates alcohol from the bloodstream.

Applying that rate, the expert concluded that the defendant’s blood alcohol concentration was .08 to .10 at the time of the stop.

In reaching this conclusion, the expert used a mathematical model that was only applicable if the subject was in a post-absorptive or post-peak state-meaning that alcohol is no longer entering the subject's bloodstream and thus her blood alcohol level is declining.

The expert also acknowledged that there are many factors that can affect whether a person is in a post-absorptive or post-peak state, such as when a person last consumed alcohol (and how much was consumed), and whether the person consumed any food that could delay the alcohol's absorption into the bloodstream.

IN PARTICULAR, THE EXPERT CONCEDED SHE HAD NO FACTUAL INFORMATION IN THIS CASE FROM WHICH SHE COULD ASSUME THAT BABICH WAS IN A POST-ABSORPTIVE STATE.

In Babich, the Court of Appeals framed the issue this way:

Can an expert offer an opinion that extrapolates a criminal defendant's blood alcohol concentration where that extrapolation can be done only if the defendant was in a post-absorptive state, and the expert had no evidence on which to base the underlying assumption that the defendant was in a post-absorptive state?

THE COURT OF APPEALS SAID NO!

The expert's assumption must be based on at least some underlying facts to support that assumption. 797 S. E. 2d at 364

Where, as here, the expert concedes that her opinion is based entirely on a speculative assumption about the defendant - one not based on any actual facts - that testimony does not satisfy the Daubert fit test because the expert's otherwise reliable analysis is not properly tied to the facts of the case. Id.

In Town of Nags Head v. Richardson, 817 S. E. 2d 874 (2018), a motion in limine was filed to challenge the anticipated testimony of an expert witness in a condemnation case.

In this case, the town was conducting a beach nourishment project and anticipated taking a temporary construction easement on the dry-sand beach portion of the Richardson's property. The property affected was the area between the toe of the dune and the mean high water mark of the beach. This temporary easement was for a ten year period. The easement would permit the town to deposit sand on the landowner's property and to enter the affected property.

The area affected by the easement consisted of 7,280 square feet in a lot that contained a total of 30,395 square feet.

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The landowner's expert appraiser:

Determined that the fair market value of the entire tract was $880,000.

Calculated that the lot had a per square foot value of $28.95.

Multiplied the square foot value by the square footage of the easement area.

Arrived at a fair market value of $210,756 for the easement area.

Estimated that the use of the easement area for ten years exploited 90% of the value of the entire easement area.

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When asked how he arrived at the 90% number, the appraiser stated that it was based on the broad nature of those rights, which in his opinion…represented 90% of the value of the easement area.

The appraiser assumed that the typical temporary construction easement and ground lease is valued at a ten percent return to the land for the duration. If this rationale was applied to the entire ten year period of the temporary easement, the calculation resulted in a total taking of the property so the appraiser deducted 10% to avoid that result because he did not think the taking would exceed the value of the entire tract.

The appraiser did not articulate a method for reaching his opinion of the value of the easement. Testimony based solely on a conclusory opinion does not present any method to which a trial judge can apply the three part reliability test from Daubert under Rule 702 and admitting such evidence is an abuse of discretion.

The appraiser's unfounded assumption that the typical ground lease or temporary construction easement carried ten per cent return per year was simply based on hunches and speculation…lacking sufficient reliability.

Town of Nags Head v. Richardson, 2018 N. C. App 649 (2018).

WHAT ABOUT PRE-DAUBERT AMENDMENT NORTH CAROLINA CASE LAW?

DO I FOLLOW THOSE CASES OR IGNORE THEM?

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The 2011 amendment did not categorically overrule all North Carolina precedents interpreting Rule 702.

State v. Godwin, 369 N. C. 605, 860 S. E. 2d 47 (2017).

The 2011 amendment did not categorically overrule all judicial precedents interpreting Rule 702 and our previous cases are still good law if they do not conflict with the Daubert standard.

State v. Gray, 815 S. E. 2d 736 (2018).

PROCEDURALLY, HOW DOES THIS ALL WORK OUT IN THE COURTROOM?

WHO HAS THE BURDEN OF PROOF ON A DAUBERT ISSUE?

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The burden of satisfying Rule 702(a) rests on the proponent of the evidence.

State v. Gray, 815 S. E. 2d 736 (2018).

Whether expert testimony is admissible under Rule 702(a) is a preliminary question that a trial court judge decides pursuant to Rule 104(a).

State v. Piland, 822 S.E. 2d 876 (2018).

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WHAT PROCEDURE DO I USE TO MAKE THIS CALL?

Rule 702(a) does not mandate particular procedural requirements for exercising the trial court's gatekeeping function over expert testimony.

State v. Watson, 369 N. C. 547, 798 S. E. 2d 741 (2017).

A trial court may elect to order submission of affidavits, hear voir dire testimony, or conduct an in limine hearing. More complex or novel areas of law may require one or more of these procedures. In simpler cases, however, the area of testimony may be sufficiently common or easily understood that the testimony's foundation can be laid with a few questions in the presence of the jury.

State v. Walston, 369 N. C. 547, 798 S. E. 2d 741 (2017).

The Court should use a procedure that, given the circumstances of the case, will secure fairness in administration, elimination of unjustifiable expense and delay, and promotion of growth and development of the law of evidence to the end that the truth may be ascertained and proceedings justly determined.

State v. Walston, 369 N. C. 547, 798 S. E. 2d 741 (2017).

The trial court has the discretionary authority to avoid unnecessary reliability proceedings in ordinary cases where the reliability of the expert’s methods is properly taken for granted and to require appropriate proceedings in the less usual or more complex case.

State v. Hunt, 250 N. C. App 238, 792 S. E. 2d 552 (2016).

Are Findings of Fact Required?

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At the present, trial courts are not required to make findings of fact or conclusions of law when they accept or reject an expert witness.

State v. Abrams, 248 N. C. App 639, 789 S. E. 2d 863 (2017) (Robert Hunter concurring opinion)

Judge Hunter suggested that the trial court should identify the Daubert factors and make findings of fact and conclusions of law, either orally or in writing, as to the expert's admissibility.

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WHAT ABOUT TYPES OF EXPERTS SPECIFICALLY RECOGNIZED BY RULE 702 SUCH AS DRUG RECOGNITION EXPERTS OR HGN EXPERTS?

DO THE OPINIONS OF THOSE EXPERTS ALSO HAVE TO SATISFY THE DAUBERT REQUIREMENTS?

NO.

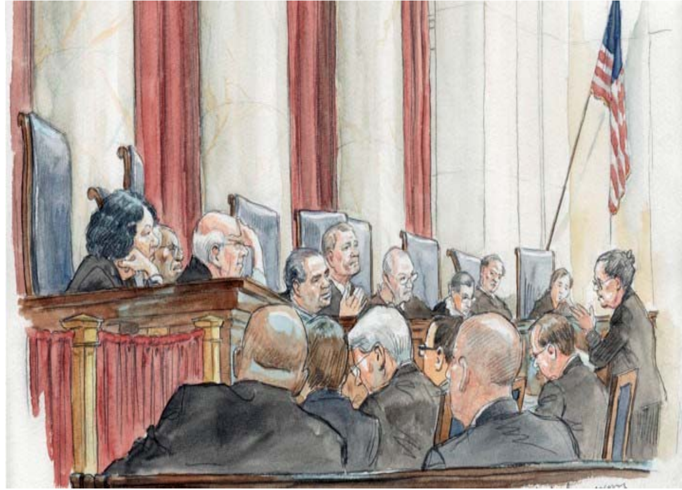
Because the Godwin decision applied the most recent amendments to Rule 702 and is consistent with previous decisions eliminating the need to prove HGN testimony as the product of reliable principles and methods, we are compelled to hold that the trial court did not err in admitting the testimony without first making such a determination.

State v. Younts, 803 S. E. 2d 641 (2017).

It is clear that the General Assembly has indicated its desire that Drug Recognition Evidence be admitted, and that this type of evidence has already been determined to be reliable and based on sufficient facts and data.

State v. Fincher, 814 S. E. 2d 606 (2018).

HOW ARE OUR DECISIONS REVIEWED OR EVALUATED?



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A trial court’s ruling regarding the admissibility of expert testimony will not be reversed on appeal absent a showing of abuse of discretion.

State v. Barker, 809 S. E. 2d 171 (2017)

A trial court abuses its discretion where its ruling is manifestly unsupported by reason or is so arbitrary that it could not have been the result of a reasoned decision.

Department of Transportation v. Butmataji, LLC, 818 S. E. 2d 171 (2018)

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WATCH OUT FOR PLAIN ERROR REVIEW!

In some cases, the Court of Appeals has observed:

We can envision few, if any, cases in which an appellate court would venture to superimpose a Daubert ruling on a cold, poorly developed record when neither the parties nor the … court has had a meaningful opportunity to mull the question.

State v. Gray, 815 S. E. 2d 736 (2018); State v. Hunt, 250 N. C. App 238, 792 S. E. 2d 552 (2017).

Our jurisprudence wisely warns against imposing a Daubert ruling on a cold record, and we limit our plain error review of the trial court's gatekeeping function to the evidence and the material included in the record on appeal and the verbatim transcript of proceedings.

State v. Gray, 815 S. E. 2d 736 (2018)

(Court of Appeals refused to consider documents, data and theories that were only raised in the appellant's brief.)

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AS A WARNING, LET'S LOOK AT STATE v. PILAND

In Piland, 822 S. E. 2d 876 (2018), the State called a chemical analyst who testified that in her opinion certain pills were hydrocodone. The witness testified that she examined the tablets for consistency and then the expert performed a chemical analysis on a single tablet to confirm that the pill contained what the manufacturer reported.

The expert was asked, "what did you find those pills to contain?" and she replied that "based on the results of my analysis … hydrocodone, which is a Schedule III preparation of opium derivative."

At trial, there was no objection.

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ON APPEAL, the defendant contended that the expert witness "did not identify, describe or justify the procedure she employed to determine whether the pills contained a controlled substance. Specifically, she did not identify the test performed, describe how she performed it, or explain why she considered it reliable." 822 S. E. 2d 876 (2018).

The expert witness did indicate that she performed a chemical analysis.

THE ADMISSION OF THE OPINION WAS DETERMINED TO BE AN ABUSE OF DISCRETION EVEN WITHOUT AN OBJECTION!