

**DEPARTMENT OF JUSTICE  
PROPOSED UNIFORM LANGUAGE  
FOR TESTIMONY AND REPORTS  
COMMENTS RECEIVED BY JULY 8, 2016**

# **Comments**

## **016 – 040**

# PUBLIC SUBMISSION

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0001

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Document:** DOJ-OLP-2016-0012-0016

Comment on FR Doc # N/A

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## Submitter Information

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## Redacted Comment

This comment is regarding the Supporting Documentation For Department of Justice Proposed Uniform Language for Testimony and Reports for the Forensic Examination of Serology. Page 11 of this document states: "Because the AP test and p30 tests detect different seminal plasma components and are based on different chemical tests (with different limitations), a positive AP test together with a positive p30 test is used to identify the presence of semen." This does not accurately reflect the scientific literature or the general practice of the forensic serology community. Both the AP test and the p30 tests are documented to give false positives with some semen-free vaginal samples (see attached Canadian Society of Forensic Science article from Denison et al, 2004). Positive results from both of these presumptive tests would strongly indicate the presence of semen, but would not identify semen to a reasonable degree of scientific certainty. Regards, Sarah Chenoweth, M.S. DNA Technical Leader Anne Arundel County Police Crime Laboratory (b) (6) =====  
===== Justice Department Docket Note: This comment as submitted included a copy of the cited Canadian Society of Forensic Science article from Denison et al, 2004. As this article appears to be copyrighted material that was produced by someone other than the commenter, the Department is not posting it online to www.regulations.gov. However, a hard copy will be retained in the paper docket file for this Notice which is available for public inspection at the location specified in the "For Further Information Contact" paragraph of the Notice. The content of the submitted attachment will be carefully considered along with the other comments received on this Notice."

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## Original Comment

This comment is regarding the Supporting Documentation For Department of Justice Proposed Uniform Language for Testimony and Reports for the Forensic Examination of Serology. Page 11 of this document states: "Because the AP test and p30 tests detect different seminal plasma components and are based on different chemical tests (with different limitations), a positive AP test together with a positive p30 test is used to identify the presence of semen."

This does not accurately reflect the scientific literature or the general practice of the forensic serology community. Both the AP test and the p30 tests are documented to give false positives with some semen-free vaginal samples (see attached Canadian Society of Forensic Science article from Denison et al, 2004).

Positive results from both of these presumptive tests would strongly indicate the presence of semen, but would not identify semen to a reasonable degree of scientific certainty.

Regards,  
Sarah Chenoweth, M.S.  
DNA Technical Leader  
Anne Arundel County Police Crime Laboratory

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**Comment On:** DOJ-OLP-2016-0012-0007

Gen Chem\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0017

Comment on FR Doc # N/A

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## Submitter Information

**Name:** John Dunn

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## General Comment

As a forensic chemist working for the Washington State Patrol, I support most of the proposed wording requirements. I have one reservation, however. I would limit the requirement to include the uncertainty of measurement information to cases in which the weight or purity of the substance identified is relevant to the outcome of the case (i.e. it will effect the charge or the penalty imposed on the person found by the court to be in possession of the substance). Most of the cases we analyze do not require uncertainty of measurement calculation. Requiring that it be calculated for every measurement, even those which will have no bearing on the outcome of the case, would impose a significant additional administrative burden with no commensurate benefit.

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## Submitter Information

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## General Comment

Docket No. OLP 157- Testimony and Reporting Language

5 Issues:

- 1) The recommended definitions do not incorporate all possible conclusions. If all possibilities are not an option then practitioners are forced to choose an option that is incomplete or incorrect. This has been well recognized and to strengthen conclusions, all options and the reasons behind conclusions need to be available.
- 2) The criteria for each conclusion is not determined or stated. This results in the conclusions being used inconsistently, which is one of the current problems. The documents also allow for personal opinions, and over interpretation which is in direct contrast to scientific conclusions. This was noted in the NAS 2009 report as an issue and is not being improved with the DOJ recommendations. DOJ is responsible for the conclusion reported out by those employed by them and should set thresholds of what is acceptable supporting data for each conclusion. This does not take millions of dollars or years to achieve unless you let it.
- 3) The proposed definitions do not ensure conclusions are supported by sound science (i.e., supported by data and testing); instead they ensure conclusions are not overstated by deemphasizing the influence of conclusions by stating they are opinions; opinions are outside the bounds of science.
- 4) The recommended definitions, and the support behind them, shows the same circular reasoning that has been used in the past (collect support behind what you are trying to prove and ignore all other information).
- 5) The recommendations are different for each pattern discipline. Comparing impressions is the same regardless

of the item being compared. Allowing for different standards shows a lack of thorough investigation into the most appropriate procedures and resulting conclusions.

The concerns can easily be resolved by incorporating all possibilities and clearly articulating the requirement for each. A ranking scale, that is based on rules, data and testing, can be established to show the conclusion and the strength of each conclusion. Basing conclusions on data and testing, instead of relying on human interpretation with personal tolerance levels, will give stronger conclusions that are scientifically supported. Below is a brief example of how to articulate conclusions, and the basis for the conclusion. The verbiage can easily be modified and elaborated on if necessary.

#### Conclusions for Non-Comparisons

Incomplete - Need exemplars

Incomplete - Comparison suspended - due to statute of limitations or other reason

Limited value - No comparison performed

Value for a comparison

#### Conclusions for Comparisons:

Overwhelming association - to infer identification, easily repeatable conclusion

Compelling association - to infer identification, may not be easily repeatable but easily demonstrable

Persuasive association - to infer identification, may not be easily repeatable or demonstrable but holds up under testing against strong scrutiny

Considerable association - to consider as an investigative lead (person of interest)

Marginal association - common amount found in others

No association found

No association exists

No comparison performed- identified to another source

This scale is simple, yet specific, and can be used for ALL pattern evidence conclusion (including tenprint comparisons). This scale allows for more specific levels of association to be arrived at and reported. The conclusions in the scale are based on data and testing which ensures conclusions are scientifically supportable.

Sincerely,  
Michele Triplett

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Document:** DOJ-OLP-2016-0012-0019

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Jules Epstein

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## General Comment

My name is Jules Epstein, and I submit these comments with a background as a Professor of Law with particular concentration on the law of Evidence. I am a member of the National Commission on Forensic Science, and make clear that while that status confirms my interest in this subject these comments are solely my own and in no way are intended to represent views of the Commission or of the Department of Justice.

I begin by saluting the Department for its recognition of the need to improve testimony by forensic discipline experts. Having said that, I am concerned with a process that, at least as to some of the disciplines, apparently began without input from non-practitioners, in particular statisticians or others who can bring the tools of the scientific method to understanding the limits of various disciplines and how best to present results that do not overstate findings.

My remaining comments are addressed to two particular proposed standards.

### 1. Footprints and tires

My first and overarching concern is that these standards were apparently developed by practitioners, without any statistician's or other scientist's input. My second concern is as to validity. According to these standards, it is an identification- which implies source attribution - when there are both a correspondence in class characteristics and at least one randomly acquired characteristic. Where is the science that the presence of one randomly acquired characteristic is enough to prove identity, i.e., that no other shoe or tire (or even few other shoes or tires) could have left the impression.

The third concern here is that the language defining the threshold for an "identification" and for a "probable match" are indistinguishable (even if there were good science behind it). To call it an identification, "[t]his opinion requires that the questioned impression and the known source correspond in class characteristics and also share one or more randomly acquired characteristics. To call it a probable match, "[t]his opinion indicates a high degree of association between the questioned impression and the known source, which is based on the



correspondence of class characteristics in combination with specific wear and/or randomly acquired characteristics." Beyond the utter subjectivity of both of these thresholds, I can't tell them apart. Each requires class characteristics and one additional feature. Indeed, in some ways, more characteristics are required for a probable match.

## 2. Latents

My first and overarching concern (again) is that these standards were apparently developed by practitioners, without any statistician's or other scientist's input. While the standards are laudable in preventing "zero error rate" claims, "to the exclusion of all others" claims, and "absolute or numerical" certainty claims, they still permit "identification," i.e. source attribution.

Here is the language:

"The examiner may state or imply that an identification is the determination that two friction ridge prints originated from the same source because there is sufficient quality and quantity of corresponding information such that the examiner would not expect to see that same arrangement of features repeated in another source. While an identification to the absolute exclusion of all others is not supported by research, studies have shown that as more reliable features are found in agreement, it becomes less likely to find that same arrangement of features in a print from another source."

How does one reconcile "identification" with a standard of another source being "less likely;" and how can this be based on nothing more than the examiner's "expect[ation]" that the same pattern would not occur in another source? This is not science. As well, precluding terminology that this is "to the exclusion of all others" simply leaves unstated what that phrase connotes - when an examiner says this is a "match to person X" or this print "came from source Y" the implicit message is "and only from that person."

In closing, I urge that these standards be withdrawn and the process commenced anew, with appropriate scientific input.

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**Comment On:** DOJ-OLP-2016-0012-0009

Glass\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0020

Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

Many forensic laboratories use micro-xrf, and some use ICP-MS or LIBS, rather than ICP-OES as described in this document.

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

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LatentPrint\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0021

Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

The "Inconclusive" section definition is incomplete. The definition should include both that "there is insufficient quality and quantity of corresponding information to identify" but ALSO that there is "insufficient quality and quantity of information in disagreement to exclude". The current phrasing states that it is "insufficient correspondence" to "identify or exclude". This doesn't make sense. According to the other two definitions, correspondence associates with identification while disagreement associates with exclusion.

While numerically calculated associations are not currently approved for casework, the use of this type of evidence is relatively close to implementation. It would be short-sighted by the DoJ to ban their use at this time. A ban may even further delay research into this kind of work. It would be more appropriate to remove reference to these calculated numbers altogether and only ban absolute (100%) certainty.

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## Attachments

latentprint\_pultr\_05252016\_RAY

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**Comment On:** DOJ-OLP-2016-0012-0007

Gen Chem\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0022

Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

From the "Conclusions" section:

"(b) Consistent With

The examiner may conclude that a questioned substance is consistent with a particular substance when:

The analytical data does not support an identification of a specific chemical or product, but does provide reliable information to include a substance within a class of materials.

An example of a conclusion that a questioned substance is "consistent with" a particular substance is: 'The bulk of Item 3 was consistent with an artificial sweetener.' "

I have the following comments about "consistent with."

Non-specific language, such as "consistent with" requires an explanation as to its context and scope. Referring to the example above it is unclear what is "consistent," what "bulk" refers to or what is meant by "artificial sweetener." "Consistent with" is ineffective without a clear understanding or definition of its meaning in context with "bulk" and "artificial sweetener."

As an example, the following statement could be misinterpreted:

"The finding of gunshot primer residue (GSR) on the hands is consistent with the firing of a firearm."

This is not a false statement, yet further explanation is required to clarify other possible modes of GSR

acquisition, such as touching GSR contaminated surfaces or being in the vicinity of a firearm discharge. Specifying what is fully meant by "consistent with" is a critical part of the conclusion that needs to be explained to avoid any possible equivocation.

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LatentPrint\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0023

Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

At the first usage of "unique", add a footnote for the word "unique" saying that uniqueness is based on the highly discriminating features of friction ridge skin and not on tests of all fingerprints

There are no other accepted methodologies for conducting latent print examination other than ACE and only one method is listed in this document.

Any suggestion that ACE is conducted (or even documented) in a linear fashion is highly inappropriate. It is completely impossible to apply ACE linearly in any but the absolute easiest identifications. Complex identifications and accurate exclusion decisions REQUIRE multiple re-analyses to ensure that all possible orientations and locations are considered and that any connective ambiguities in minutiae are considered appropriately. Support for non-linear ACE is in the White Box papers where accuracy improved when examiners moved, added, and deleted minutiae (re-analyzed) throughout Comparison and Evaluation.

The list of Quality factors should also include: "...lateral pressure (e.g. slippage), overlapping impressions,..."

Suitability should be substituted throughout the document instead of "of value".

This entire paragraph on how an impression is deemed to be of value is extremely limited to the practices of the FBI. Most other agencies do not apply this definition of value that is extremely identification-centric. It should be possible to describe this process in neutral terms that could be applied to the analysis phase of all labs, instead of just the (somewhat outdated) practices of the FBI. For example: "An impression is deemed to be suitable to continue through the ACE process when the examiner determines that sufficient reliable information is present to

reach a conclusive decision. In other words, the examiner may deem an impression to be suitable when the discriminating power of its features are sufficient that, given clear and complete known prints, an identification and/or exclusion decision is likely."

Specificity is an equally important factor that should be included along with quality and quantity.

Another example is necessary in the Inconclusive section for clarity. For example: "An inconclusive decision may also result when the exemplars are complete but the features in disagreement are not sufficient to reach an exclusion decision."

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## **Attachments**

latentprint\_supporting\_documentation\_05252016\_RAY

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**Comment On:** DOJ-OLP-2016-0012-0014

Toxicology\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0024

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

There is no clarification of what constitutes an "examiner". SWGTOX, FTC and ABFT recognize different levels of expertise and training. Bench-level analysts may or may not be qualified to give opinions on effects of drugs on an individual in human performance toxicology cases (OWI cases being most common), but certified PhD-level scientists often are. There is also no mention of reviewing other case data, such as witness statements or SFST results (assuming the expert rendering the opinion is qualified to do so). Statements 1 and 2 under "Statements Not Approved" read as if rendering an opinion on an individual's impairment in any given case should never be done. If this is the intent of this document, it is at odds with the legal requirements of many jurisdictions where opinions on individual situations for prosecution are required; and it is at odds with previously published documents from SWGTOX and SOFT on the function of forensic toxicologists.



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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0014

Toxicology\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0025

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Christopher Cording

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## General Comment

In the "Statements not Approved" section, item #4 states ..."An examiner may not report or state an opinion that an individual was impaired based on a drug concentration in a urine or hair sample." The statement should be amended to say that an opinion on impairment should not be based solely on a drug concentration in the urine. If there are eyewitness observations of impairment, behavior consistent with the presence of a drug, admission of drug use or other pertinent facts, then along with the drug concentration in the urine an opinion can be formed as to an individual's impairment. The totality of the case needs to be considered.

The original statement is acceptable concerning hair analysis.

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**Document:** DOJ-OLP-2016-0012-0026

Comment on FR Doc # N/A

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## Submitter Information

**Name:** clifford and cedric spiegelman and Neumann

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## General Comment

We are 2 of the 3 chairs of the Statistics and Applied Mathematical Sciences Institute's (SAMSI, a NSF mathematical sciences institute) 2015-2016 program in forensic science. One of us (Spiegelman) was on the 2004 CBLA NRC panel, lead chair of the 2015-2016 SAMSI forensic program, and longtime editor for Chemometrics and Intelligent Laboratory Systems. One of us (Neumann) has spent the last 20 years strengthening the scientific foundations of various forensic sub-disciplines (questioned document, DNA, footwear and fingerprint) through the statistical analysis of data, and has been funded by several agencies (U.S. DOC, U.S. DOJ, U.S. DHS, U.K. Home Office) to investigate statistical inference related to forensic science. We welcome the U.S. Department of Justice (DOJ) review of proposed uniform language documents, and appreciate being invited to make comments by Ms. Antell of the DOJ Office of Legal Policy. Our comments are both general and specific, and cover 4 different topics:

- 1) The purpose of the proposed uniform language documents;
  - 2) The need for consistency and coherency in the conclusion schemes across the different forensic science sub-disciplines;
  - 3) The need for forensic scientists to be accountable for the gist of their testimony;
  - 4) The need for conclusions to convey different aspects of the forensic findings and to be descriptive.
- 

## Attachments

CedricCliffleterDOJ\_v6

We are 2 of the 3 chairs of the Statistics and Applied Mathematical Sciences Institute's (SAMSI, a NSF mathematical sciences institute) 2015-2016 program in forensic science. One of us (Spiegelman) was on the 2004 CBLA NRC panel, lead chair of the 2015-2016 SAMSI forensic program, and longtime editor for Chemometrics and Intelligent Laboratory Systems. One of us (Neumann) has spent the last 20 years strengthening the scientific foundations of various forensic sub-disciplines (questioned document, DNA, footwear and fingerprint) through the statistical analysis of data, and has been funded by several agencies (U.S. DOC, U.S. DOJ, U.S. DHS, U.K. Home Office) to investigate statistical inference related to forensic science. We welcome the U.S. Department of Justice (DOJ) review of proposed uniform language documents, and appreciate being invited to make comments by Ms. Antell of the DOJ Office of Legal Policy. Our comments are both general and specific, and cover 4 different topics:

- 1) The purpose of the proposed uniform language documents;
- 2) The need for consistency and coherency in the conclusion schemes across the different forensic science sub-disciplines;
- 3) The need for forensic scientists to be accountable for the gist of their testimony;
- 4) The need for conclusions to convey different aspects of the forensic findings and to be descriptive.

Firstly, the purpose of the proposed uniform language documents is not clear. The contradictions between the disclaimer present at the beginning of each document and the "Purpose and Scope" section is confusing the reader. While it is understood that the proposed documents are not meant to retroactively apply to forensic findings reported in the past and that forensic scientists may have to comply to local legal requirements, the language of the disclaimer (e.g., "*This document provides examples of [...]*") keeps the door open for forensic scientists to report conclusions as they please. The disclaimer particularly contrasts with the scope, which states clearly that each document *will apply to Department of Justice personnel who perform forensic examination and/or provide expert witness testimony*, implying that these documents will serve as standards. In this regard, the many

statements that say the examiner *may testify, may state, may imply* are not commanding enough and we feel that the word *may* has to be replaced with *must*. Science is not an adversarial sport and examiners have the duty to present relevant information to jurists. For example, in DOJ-OLP-2016-0012-0012, the statement for:

“Presumptive Tests

An examiner *may state or imply* that presumptive testing procedures may yield false-positive results (i.e., test signal in the presence of materials other than blood or semen) due to the lower specificity of such tests.”

Should instead state:

An examiner *must state* that presumptive testing procedures may yield false-positive results (i.e., test signal in the presence of materials other than blood or semen) due to the lower specificity of such tests.

To do otherwise would not provide the whole truth to the courts and be in violation of the examiner’s sworn oath to tell the whole truth.

Even if the purpose of these documents is not to become standards and to merely provide examples of possible conclusions, we feel that some documents do not even achieve this goal. For example, in DOJ-OLP-2016-0012-0006, we find at several occasions that:

“The examiner may report results of examinations and/or *state opinions/conclusions* [...]”

It seems to us that the general purpose of these documents is to render explicit what types of opinion/conclusion are allowed. However, such statement only indicates that examiners may report an opinion/conclusion, they do not indicate what exact types of conclusion are allowed and how to express them. This contradicts the purpose, even loosely understood, of these documents.

Secondly, it is widely recognized by the legal and scientific communities that the determination of the source of a forensic trace involves statistical inference. However, it seems to us that the larger statistics community was not engaged in the preparation of the uniform language documents. This is particularly concerning for documents that are meant to apply to DOJ personnel who will perform forensic examinations in the foreseeable future.

For most evidence type, the logical inference process supporting source attribution is the same and relies on the observation of the characteristics of a trace and their comparisons with the characteristics of one or more sets of control material. It is preoccupying to see that DOJ's uniform language documents do not recognize the parallels in the inference process for the different forensic sub-disciplines and propose conclusion schemes that differ from one another. These documents merely mirror the current situation, as defined by practitioners in each sub-discipline, who work in silos and self-validate their own practices. As a whole, these documents do not propose a way forward that involves more stringent use of scientific decision-making processes. In fact, at least one of these documents (DOJ-OLP-2016-0012-0004) explicitly states that error rates and statistical weights are not approved statements. This goes against more than 20 years of legal and scientific argumentation. Furthermore, for two pattern evidence types as similar in principle as latent print and footwear, it is surprising to see that a 3-scale conclusion scheme is appropriate for latent print, while a 7-scale conclusion scheme is appropriate for footwear. The latent print scale may not be ideal, but it avoids the confusion and overlapping between all the intermediary steps found in the footwear document, such as *probably made*, *could have made*, *unsuitable*, etc., which are not well defined and strictly delimited from each other.

Thirdly, we want to argue that forensic scientists need to be accountable for the gist of their testimony. For example, we note that, as stated in DOJ-OLP-2016-0012-0004 (i.e, without any context), statements such as *could have made* are extremely uninformative and arguably biasing against a defendant. Indeed, since every conclusion is a function of the quality and quantity of information present on the trace only, it is easy to imagine a situation where the quality of a partial trace is so poor that it *could have been made* by any given shoe presented to the examiner. Hence, taken out of context and without significant preamble, the *could have made* statement is extremely prejudicial since it implies that the shoe of a defendant is potentially the source of a trace, irrespectively of the trace's actual intrinsic characteristics. As another example, in DOJ-OLP-2016-0012-0012, we have

“Inconclusive Result

An examiner may state or imply that no determination can be made regarding the presence or absence of blood or semen when an inconclusive result is obtained from the appropriate testing procedure(s).”

If such statements were given when there was no reason to expect a stain to be present, simply providing an irrelevant scientific statement could convey the aura of possible guilt.

Fourthly, we argue that the proposed conclusions do not fairly and entirely report all the information available to the scientists. Requirements to report sensitivity and specificity are rarely mentioned and, when they are, it is in statements to help the prosecution side. When such mention might help the defense side they are missing. As an example consider document DOJ-OLP-2016-0012-0015. It relies too heavily on mass spectrometry. Although in capable hands mass spectrometry is a relatively precise instrument, even LC-MS-MS-MS can lead to false positives. This may be due to carryover and/or other instrument and laboratory artifacts. Since MS is a sampling technique, measuring a blank between suspect samples does not guarantee that there are no artifacts. The authors of this document are very familiar with this instrument, either trained in forensic chemistry (Neumann) or a former editorial board member for the American Chemical Society Journal of Proteome Research, and editor emeritus of Chemometrics and Intelligent Laboratory Systems (Spiegelman.) DOJ should avoid presenting any measurement technique as a *magic bullet*, in particular when the technique aims at characterizing partial and degraded samples of forensic interest. We feel that the allowed conclusions should be more coherent and consistent across all documents. Testimonies should be humble and circumspect; they must include information about specificity and sensitivity of the technique used, and error rates of the decision-making process as applied by practitioners in casework (or at the very least state explicitly that no error rates study has been performed to date, but that the error rates exist). Furthermore, testimonies must avoid the use of uninformative terms such as *indistinguishable*, *sufficient*, *corresponding*, *same*, unless these terms are clearly defined, and associated to some predefined and validated quantitative measure. As it stands, it is accepted among the forensic community that

determining that two objects are the *same* involves some tolerance level that accounts for the observed differences. This tolerance level needs to be explicit, quantified and part of the conclusion scheme. As an example, we find in DOJ-OLP-2016-0012-0004, that:

“Identification

The examiner may state that it is his/her opinion that the shoe/tire is the source of the impression because there is *sufficient* quality and quantity of *corresponding* features such that the examiner would not expect to find that *same combination* of features repeated in another source. This is the highest degree of association between a questioned impression and a known source. This opinion requires that the questioned impression and the known source *correspond* in class characteristics and also *share* one or more randomly acquired characteristics. This opinion acknowledges that an identification to the exclusion of all others can never be empirically proven.”

Does this mean the examiner does not need a scientific foundation to define what *sufficiency*, *corresponding*, *same combination*, *share*, mean in this statement? Both authors of this letter are working hard to lay a statistical foundation for shoeprint analyses and working with the Israeli shoeprint unit. As of today there are strong opinions but beyond that is a work in progress. There are strong bias components to choosing accidentals for compare to crime scene prints, and none of this is explicit in the proposed language for conclusions in the DOJ document.

Finally, we note that it is extremely hard, perhaps impossible to edit in quality the documents at this point and without the collaboration of scientists with different backgrounds. We sincerely hope that our comments are helpful and we are happy to provide more specific guidance should a task force be created to review these documents.

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<b>Comments Due:</b> July 08, 2016
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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0014

Toxicology\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0027

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Lindsay Simpson

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## General Comment

This document only outlines what can be said about drug testing in hair. While I appreciate the lack of regulations for testing in blood, urine and saliva, it seems as though other bodily fluids are not allowed for testing.

Perhaps it would be helpful if a statement of clarification were added that the uniform testimony language is only suggested for hair due to it's complex nature of environmental exposure vs. ingestion while other bodily fluids are still perfectly acceptable for testing.



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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0014

Toxicology\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0028

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Diana Garside

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## General Comment

The examiner may report and/or state that a drug or poison found in a hair specimen is consistent with exposure (either ingestion or environmental) to the drug or poison.

The examiner may report and/or state that hair findings indicate the ingestion of a drug or poison if validated wash procedures have been performed that can differentiate between exposure and ingestion and/or if a metabolite that is uniquely associated with ingestion has been identified in the sample.

The word 'ingestion' could be changed to 'use' since ingestion implies oral administration and drugs can also be taken in other ways such as IV, smoking, transdermal.

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0014

Toxicology\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0029

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

Similar to "extrapolated ethanol concentration in a blood", is it possible to add the testimony to include converting serum/plasma alcohol concentration in blood?

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0001

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Document:** DOJ-OLP-2016-0012-0030

Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

Referring to the DOJ Proposed Uniform Language for Testimony and Reports for the Forensic Footwear and Tire Impression Discipline, and the supporting documentation.

The conclusion scale outlined in this document was the version recommended by SWGTREAD in 2006 according to their archived standard

[http://www.swgtread.org/images/documents/standards/archived/swgtread\\_10\\_terminology\\_conclusions\\_200603\\_201302.pdf](http://www.swgtread.org/images/documents/standards/archived/swgtread_10_terminology_conclusions_200603_201302.pdf).

This scale has been superseded by the new standard published in 2013;

[http://www.swgtread.org/images/documents/standards/published/swgtread\\_10\\_conclusions\\_range\\_201303.pdf](http://www.swgtread.org/images/documents/standards/published/swgtread_10_conclusions_range_201303.pdf).

The new scale has been adopted in Australia as the recommended scale, and I believe also in Canada. A recent paper (which I was involved in) published in the Journal of Forensic Identification outlined a preliminary validation of the new scale -

JFI, 2015, 65(5), pp-868-883.

I am inquiring as to the reasoning behind the retention of the older conclusion scale, when the newer terminology (such as as Randomly Acquired Characteristics instead of individual characteristics) has been adopted? Was there any research undertaken

to specify the older over the new version? This may have implications internationally and any information would be much appreciated. The statement in page 5 of the accompanying documentation that "The above process on footwear/tire examinations adheres to published recommendations of SWGTREAD" is not quite accurate as the conclusion scale is based on an out-dated standard.

Kind regards,

Dr Jennifer Raymond

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**Docket:** DOJ-OLP-2016-0012

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**Comment On:** DOJ-OLP-2016-0012-0015

Toxicology\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0031

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Diana Garside

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## General Comment

The American Society of Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB)

This should be The American Society of CRIME Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB)

The functions of SWGTOX are now under the Organisation of Scientific Area Committees (OSAC)

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0008

Glass\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0032

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Mary Eng

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## General Comment

In paragraphs 2, 3, and 5, there are mentions of conclusions being reached based upon "chemical" composition.

In glass

analyses, comparison conclusions are based upon "elemental" composition. Elemental composition is mentioned initially in

paragraph 2.

I am not comfortable with the statements that "an examiner may state or imply...". If one of the goals is to have uniform and

clear language for reports, then conclusions should be clearly stated in the report and during testimony.

Conclusions that are

implied may be misstated during summation at the end of the trial or misinterpreted by a jury.

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0002

Fiber\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0033

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Mary Eng

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## General Comment

In paragraph 3, there is no mention of considering chemical composition of man-made fibers or comparing colors. Also, the

wording in the last sentence of the paragraph is not that clear and hints at probabilities.

There is no weaker "inclusion" or "inconclusive" comparison conclusion for white (colorless) and blue cotton fibers, which

are fairly ubiquitous.

I am not comfortable with the statements that "an examiner may state or imply..." If one of the goals is to have uniform and

clear language for reports, then conclusions should be clearly stated in the report and during testimony.

Conclusions that

are implied maybe misstated during summation at the end of trial or misinterpreted by a jury.

# PUBLIC SUBMISSION

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**Docket:** DOJ-OLP-2016-0012

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**Comment On:** DOJ-OLP-2016-0012-0014

Toxicology\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0034

Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

These are general comments concerning the topic of testimony and report opinion guidelines:

Is it ethical for the government to dictate what the expert's testimony or written opinion should be or how they should testify or write that opinion (basically telling them what their conclusion can or cannot be) and is it ethical for an examiner to follow such guidelines? The government is placing a built in bias to the examiner's conclusion and testimony. An expert's opinion is just that, an opinion and the weight of that opinion is to be determined by the jury after hearing all the facts.

There is a strong possibility that current ISO requirements may consider this undue internal and external commercial, financial and other pressures and influence that may adversely affect the quality of their work as stated in section 4.1.5.b. If so, any lab who follows this testimony guideline may lose their accreditation status.

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0010

LatentPrint\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0035

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Allen Garrett

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## General Comment

This is a general comment concerning the topic of testimony and report opinion guidelines:

Is it ethical for the government to dictate what the expert's testimony or written opinion should be or how they should testify or write that opinion (basically telling them what their conclusion can or cannot be) and is it ethical for an examiner to follow such guidelines? The government is placing a built in bias to the examiner's conclusion and testimony. An expert's opinion is just that, an opinion and the weight of that opinion is to be determined by the jury after hearing all the facts.



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**Comment On:** DOJ-OLP-2016-0012-0011

LatentPrint\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0036

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Bridget Lewis

**Organization:** Int Association for Identification

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## General Comment

In response to the Department of Justice proposed Uniform Language for Testimony and Reports it is the IAI Latent Print Subcommittee position to support the intent of these guidelines. These guidelines reiterate previous standards and are already believed to be the state-of-the-practice among forensic examiners. Additionally, this subcommittee recommends the DOJ collaborate with other standardization bodies such as the Organization of Scientific Area Committees and the Academy Standards Board prior to publishing any guidelines on examiner testimony in order to promote continuity and reduce redundancy in the standards development process.

The IAI Latent Print Identification Subcommittee promotes the reporting of scientifically sound conclusions that do not include language of "zero error rate", "absolute certainty", or "to the absolute exclusion of all other sources" as outlined in the DOJ guidelines. We also discourage the use of numerical terms in expressing these conclusions until appropriate statistical models have been validated by the relevant forensic community. The use of numerical terms in expressing personal confidence levels is also discouraged by the subcommittee and we think that terminology could be added to these guidelines as well.

It has been demonstrated through research that the overall quality of latent print work is high and error rates are relatively low, and we believe this has been accomplished through the thoughtful application of appropriate standards and guidelines.

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0004

Footwear Tiretread\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0037

Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

Though I do not disagree with the guidelines presented for the wording of reports I do have concerns as to whether it is truly ethical for the government to dictate what the expert's testimony or written opinion should be or how they should testify or write that opinion (basically telling them what their conclusion can or cannot be) and is it ethical for an examiner to follow such guidelines? The government is placing a built in bias to the examiner's conclusion and testimony. An expert's opinion is just that, an opinion and the weight of that opinion is to be determined by the jury after hearing all the facts.

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0006

Gen Chem\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0038

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Allen Garrett

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## General Comment

Under the section titled "Statements Not Approved...." Item 2, the comment in parentheses "or a percentage of the item" may need to be reworded to more fully explain its desired intent because it is mathematically correct to state that if a submission contained 10 pills (whether homogeneous or not) and three of those pills were analyzed and contained the same substance, then 30% of that submission does contain that identified substance.

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**Comment On:** DOJ-OLP-2016-0012-0006

Gen Chem\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0039

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Mary Eng

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## General Comment

Paragraph 9 is not clear to me. What would be acceptable as "general effects" of a chemical? When I hear "effects" of a chemical, I tend to think in terms of toxicology, which is considered a separate and distinct discipline from "general chemistry".

Would "general effects" mean "this is a depressant" or "this is a stimulant"?

# **Comments**

## **041 - 060**

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0004

Footwear Tiretread\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0040

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Mary Eng

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## General Comment

I thought the use of the term "probably made" was being discouraged because it implies statistical probabilities that the field does not have at this time.

I'm not sure of the distinction between the "could not be determined" opinion and the "indications did not make" opinion.

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Footwear Tiretread\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0041

Comment on FR Doc # N/A

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## Submitter Information

**Name:** G. Matt Johnson

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**Organization:** OSAC Footwear/Tire Track Subcommittee

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## General Comment

Response to the Department of Justice Proposed Uniform Language for Testimony and Reports for the Forensic Footwear and Tire Impression Discipline.

From the Footwear and Tire Track Subcommittee of the NIST Organization of Scientific Area Committees (OSAC)

The following comments are in response to the draft for comment of the "DOJ Uniform Language for Testimony and Reports for the Forensic Footwear and Tire Impression Discipline".

- 1) The document overall contains the general categories that have been previously and currently accepted by the general relevant scientific practitioner community; Identification, levels of association, levels of disassociation, elimination and lacks suitability.
- 2) The document includes specific language that is not currently used by most of the community, evidenced by the removal of this language from the last published standard created by the Scientific Working Group on Footwear and Tire Tread Evidence (SWGTHREAD). It is recommended that the published version of the SWGTREAD conclusion scale be consulted for language and levels that have been most recently vetted and accepted by the FW/TT community.
- 3) The three Statements Not Approved for Use in Laboratory Reports and Expert Witness Testimony Regarding Forensic Examination of Footwear and Tire Impression Evidence is supported.





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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0010

LatentPrint\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0042

Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

I would like to see there be a distinction of two different types of inconclusive results. The first type would be inconclusive due to the insufficient quantity/quality of the known prints (need better knowns) and the second type would be inconclusive due to the insufficient quantity/quality of the latent print (cannot exclude but cannot identify the print, no better known prints would change this). Two very different inconclusive results that many agencies use. I understand there are agencies that only give value to a latent print if it is identifiable but there are also many agencies that give value to a latent print because it has value to exclude a subject, the latter type of agencies would need two inconclusive results to report a result that would be representative of their conclusions.

The proposed example is too vague, it doesn't explain WHY it is inconclusive. If we add just a little more information at the end of the statements it would be clear.

Example:

An examiner may state or imply that an inconclusive result is the determination that there is insufficient quality and quantity of corresponding information such that the examiner is unable to identify or exclude the source of the print due to the known print.

An examiner may state or imply that an inconclusive result is the determination that there is insufficient quality and quantity of corresponding information such that the examiner is unable to identify or exclude the source of the print due to the latent print. (This conclusion would be a result of a comparison where you cannot exclude a subject because there are similarities in agreement but cannot identify because there wasn't enough information or specificity).

Thank you for your consideration.

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0011

LatentPrint\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0043

Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

"An impression is deemed to be of value when the examiner determines that sufficient reliable information is present, such that, when compared to another print from the corresponding area of the same individual, an identification decision can be reached"

This definition does not account for multiple agencies that deem a print of value for not only identification purposes but also exclusion purposes. A print can be of value for comparison and the examiner would be able to exclude a subject to a latent print but not identify. A print is not valuable ONLY for identification purposes.

"B. Inconclusive

An examiner may state or imply that an inconclusive result is the determination that there is insufficient quality and quantity of corresponding information between two impressions such that the examiner is unable to identify or exclude the impressions as coming from the same source. For example, if the print compared is from the tip or lower joint of a finger and the corresponding area is not fully captured on the available exemplar(s), or the corresponding area is unusable due to distortion, then an inconclusive decision would be reached."

This definition only gives room for those agencies that deem a print valuable for identification purposes. An inconclusive can also result when you have all the known exemplars and cannot reach an identification or

exclusion decision because of the insufficient quantity/quality of the latent print. This print can be used to exclude other subjects so it is of value, it just cannot be identified.

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LatentPrint\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0044

Comment on FR Doc # N/A

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## Submitter Information

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**Organization:** FBI Criminal Justice Information Services Division

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## General Comment

Based on the title of this document, is the intention to cover the fingerprint identification discipline as a whole, or does it just apply to latent fingerprint work, cases, reports, testimony, etc.? The CJIS Division believes the term "latent" may be used in this document by the DOJ as all encompassing, but that is unclear; such as someone might use the phrase "you guys" to refer to everyone, including gals. The term "friction ridge" is used in the language for each of the conclusions and is more generic and generally accepted. If the document is, in fact, intended for latent work only, it should be more clear about that vs. mixing the two terms. If the document remains unclear, it could exempt those of us who testify to our "tenprint" comparisons from having to meet this and future criteria and might allow us to explain in court that we aren't required to meet the requirements, etc., because we perform "tenprint" examinations vs. latent ones. We believe exempting "tenprint" comparisons is dangerous, in that, the basics of our testimony are exactly the same as those in latent fingerprint testimony. Both disciplines examine, document and arrive at scientific conclusions in the same manner. The major difference lies in the way in which the prints are obtained for examination. "Tenprints" or "known prints" are already developed when they are presented to us to compare, and they are from "known" subjects. Latent prints normally must first be lifted and developed when they can be compared to a candidate or unknown subject. We would certainly never want individuals from the same agency (FBI Lab/FBI CJIS) testifying differently with respect to the science, language, method, etc., or being held to two different sets of standards. That being said, what we read in the Purpose and Scope Section of the document is ambiguous and confusing from a "tenprint" perspective. It talks about applying to forensic examinations and/or ...latent work. If "tenprint" is considered "forensic examination" we must be more generic in our terms. Therefore we recommend the term "friction ridge" be used in the titles and throughout the documents versus the specific "tenprint" or "latent."

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Fiber\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0045

Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

I think this document is pretty well written, however, there is no mention of fabric, carpet, cordage, etc. It is missing the ability to compare textile construction (in addition to fiber composition comparison) or the potential for physical fits. Is there another document planned to cover these topics?

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Comment on FR Doc # N/A

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## General Comment

My letter providing comments is included in the attached files

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## Attachments

Letter DOJ Proposed Standards v.3



Brandon L. Garrett

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JUSTICE THURGOOD MARSHALL DISTINGUISHED PROFESSOR OF LAW

June 29, 2016

Department of Justice  
The Office of Legal Policy  
950 Pennsylvania Avenue NW.  
Washington, DC 20530

Submitted through: [www.regulations.gov](http://www.regulations.gov)

**Re. Proposed Uniform Language for Testimony and Reports**

Dear Commission Members,

I congratulate and thank the Department of Justice for taking on the important project of reviewing prior testimony in a range of forensic science disciplines and also looking forward, by issuing proposed uniform testimony and reporting standards. I write on my own behalf and to express only my own views as a scholar and a researcher. These views should not reflect those of any institution, including the University of Virginia, where I teach law, or the CSAFE consortium, of which I am a participant.

Unfortunately, this proposed Uniform Language for Testimony and Reports does not meet minimal scientific or legal standards for either accuracy and clarity. The best that can be said of these proposals is that they would bar certain types of egregiously inaccurate testimony—but largely the ones already barred in the relevant fields—while permitting and perhaps even encouraging a broad range of inaccurate, misleading, and unscientific forensic testimony. The Department of Justice is correctly seeking public comment and will no doubt quickly observe when hearing from lawyers, and more important scientists, that these standards are deeply inadequate and may not even contribute much to the status quo.

To begin with the three types of errors set out in the protocol used by the Department of the Justice and the FBI, in conjunction with the Innocence Project and the National Association of Criminal Defense Lawyers, for the landmark undertaking to audit thousands of old cases involving microscopic hair comparisons, those errors include, summarized briefly: (1) A statement that the evidence “could be associated with a specific individual to the exclusion of all others; (2) assigning “a statistical weight or probability” without empirical support for doing so; (3) citing to “the number of cases” or “analysis... in the lab” to “bolster the conclusion.” For each, that protocol clearly states that “[t]his type of testimony exceeds the limits of the science.” Nevertheless, each these new draft standards either fail to address or outright permit some or all of the same three types of errors that have led to the landmark audit of thousands of hair comparison cases.



| Still more troubling, these proposals fail to address added concerns raised in the 2009 National Research Council report. Indeed, these proposals recommend conclusions of the very kind the report identified as lacking scientific support. National Research Council, Commission on Identifying the Needs of the Forensic Sciences Community, *Strengthening Forensic Science in the United States: A Path Forward* 7 (National Academies Press 2009). That report noted that testimony and reports should report levels of certainty and levels of confidence, as well as detailing procedures apart from conclusions reached. The proposed background materials do provide just that—background—but they do not call for the “complete and thorough” documentation that sound scientific reporting requires. NRC Report at 21, 186. At minimum, current guidelines should state that as the research permits, error rates and “confidence intervals associated with the overall conclusions” should be reported. *Id.* at 186. Both average performance and individual performance must be measured and assessed. *Id.* at 190.

Take for example the proposed standards for testimony and reporting of latent fingerprint comparisons. That proposal does state that a fingerprint examiner may not state an identification to the exclusion of all others (Error Type 1 in the hair case review). It also states that a fingerprint examiner may not claim to have a zero percent error rate—nor may a numerical certainty be stated, which follows, as there is not adequate empirical research permitting such a statement (the latter is Error Type 2 in the hair case review). Those same standards, by the way, should apply to any discipline, since there is no technique that has a zero percent error rate, and in general, for any discipline numerical certainty should only be stated if empirical research supports it. The other proposed standards should conform to these principles.

What the proposal for latent fingerprint comparisons does not do, however, is provide any affirmative (as opposed to negative) guidance on what can be said. A few areas of concern are noted below:

*Can an analyst claim to have a near-infallible capabilities, if not a zero error rate?*

Analysts continue to claim as much, including in fingerprint cases, but the data is still lacking on the subject. This standard should explicitly bar any such testimony making a claim about an error rate absent data measuring such an error rate by an analyst and by a lab. This type of error would fall within Error Type 3 in the hair case review.

*Can the analyst imply a very high degree of certainty, absent statistical or empirical support?*

Relatedly, this guideline encourages as much, even though such testimony would fall within Error Type 2. It says that “studies have shown that as more reliable features are found in agreement, it becomes less likely to find that same arrangement of features in a print from another source.” The background materials cite only two such studies, and the National Academy of Sciences Committee report in 2009 that sparked renewed interest in validating a range of forensic disciplines found insufficient empirical support for any such statement, given a lack of research on what counts as a “more reliable feature” and to what degree any such features could make it more “likely” that the items came from the same source. To be sure, full discovery concerning bench notes and any features that

were deemed to be reliable should always be provided so that others can observe what the process was that lead to the conclusion reached.

*Can an analyst claim to have a high degree of personal proficiency, absent statistical or empirical support?*

Analysts sometimes testify that they themselves never make mistakes or have never made mistakes in the thousands of cases they have worked on, as the Department of Justice knows well from its review of cases involving hair comparisons—such testimony falls within Error Type 3 in the hair case review. Such statements should not be permitted. Moreover, discovery and disclosure of any relevant data or information concerning proficiency should be routinely provided.

Yet another remarkable statement on the subject of error rates can be found in the proposed standards regarding serology: “the analytical processes and procedures used to support serology testing do not have a calculable error rate due to the unpredictability of human error.” It would come as a surprise to scientists to hear that it is not possible to calculate error rates because human error is “unpredictable.” Studies examining error rates by humans, from proficiency tests to experiments, can and are conducted in a range of fields. They should and they must be conducted across forensic disciplines as well. Perhaps they have not been conducted in the past, but absent sound information about human error rate one cannot assume that rates are either low or high. Nor does it make any sense at all to call them “unpredictable.” Indeed, if research shows “unpredictable,” in the sense of highly variable human error rates that could be high or low in any given case, then a different word should be used to characterize the discipline: “unreliable.”

Similarly, the idea that when broken glass is observed to “physically fit together” that it can be concluded that the pieces came from the same source, or that their characteristics are “indistinguishable” permits a broad range of unsupported testimony (violating Error Types 1 and 2). Any such conclusions must have criteria clearly set out and they must be validated by sound research, including regarding error rates and proficiency of examiners. This standard on “glass matching” seems to permit the kind of testimony that would be deemed inappropriate under the proposed standards for fingerprint testimony, where absolute identifications cannot be made. These standards are not even consistent as between themselves.

The forensic footwear standard proposed does not pass minimal scientific muster either. What research supports the notion that an unequivocal statement of identification can be made based on corresponding “class characteristics” and also “one or more randomly acquired characteristics”? What makes a characteristic “randomly acquired” and how does one know if it is “randomly acquired”? Such statements do not comport with the guidance in the 2009 NRC report, which clearly stated that “There is no consensus regarding the number of individual characteristics needed to make a positive identification” and which called for “population studies” to empirically validated any claims of the nature suggested in this proposal. NRC Report at 149. The proposed standard “acknowledges that an identification to the exclusion of all others can never be empirically proven,” but it does not empirically support saying the same thing as a matter of “opinion,” without any empirical support—which constitutes Error Type 2. And what does “probably made” mean: that is yet another probabilistic statement that lacks an empirical

foundation. The DOJ would be advised not to ratify the precise types of unsupported probabilistic statements that it is currently auditing in the field of microscopic hair comparisons.

These proposed standards risk encouraging precisely what is now the subject of the FBI and DOJ review of old microscopic hair comparison cases—statements that put more weight on a comparison than is scientifically appropriate. Some of these statements are among those that courts have found intolerably vague and unsupported by research. Others have been in frequent use in the courts but include the very flawed concepts and vague language that was criticized by the 2009 NRC Report. I believe that this group needs to substantially revise each of these standards with input from lawyers and scientists.

Thank you so much for considering these comments and I hope these comments prove helpful to your ongoing and important work.

Very truly yours,

A handwritten signature in black ink that reads "Brandon L. Garrett". The signature is written in a cursive style with a long horizontal flourish at the end.

Brandon L. Garrett

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Gen Chem\_pULTR\_05252016

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Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

Page 2, item 2: "When no sampling plan was used and no reasonable assumption of homogeneity of an item was determined, the examiner may not report or state an opinion that the conclusions apply to the entirety of an item (or a percentage of the item)." When a state law is written as "a substance containing" a forensic laboratory would not need to routinely determine purity. If a sample that is non-homogeneous but still a single item, and it identifies as a drug; it would be reported in its entirety related to weight of the substance as the statutes do not make a distinction. The use of the word "Item" without a definition is concerning. If read more globally, instead of meaning a single item, perhaps it is meant toward a specific population/collection of similar items (e.g a bag of tablets; multiple ziplocks containing a consistent in appearance powder, etc). Defining terms or ensuring the guideline wording properly reflects the intention would be appreciated.

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Glass\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0048

Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

Regarding point 2 for Statements Approved for Use in Forensic Glass Comparison Testimony and/or Laboratory Reports,

use of the word "indistinguishable" would infer "identical" and provide a potential for a jury to provide more weight to the

analytical report than potentially intended. Use of the word "similar" would be more consistent with the information generated,

especially if a system does not have the capability to conduct chemical composition of glass samples.

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Glass\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0049

Comment on FR Doc # N/A

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## General Comment

Certain items contained in the supporting documentation are factually incorrect and imply only that one (foreign) companies products may produce results.

Page 4: The statement "Measurement of the refractive index at up to three wavelengths, 488 nanometers (nm), 589 nm, and 656 nm. Refractive index of the glass is measured using the Foster + Freeman, Ltd. Glass Refractive Index Measuring system (GRIM3).

>>>This comment states that only one product can make this measurement. This is untrue and is an endorsement of a single companies product.

1. This measurement may be done manually. A trained examiner only needs a thermal stage and a phase contrast microscope. The instrument that is called for in your document merely automates the process.
2. The automated instrumentation called for here must comply with the ASTM E1967 "Standard Test Method for the AUTOMATED Determination of Refractive Index of Glass Samples Using the Oil Immersion Method and a Phase Contrast Microscope".
3. The instrument that is endorsed here is not the only one on the market that can perform these measurements. A USA company markets one and it too exceeds the requirements of ASTM E1967 (<http://www.microspectra.com/products/riq>).
4. Please note that the ASTM standard does NOT have the manufacturers bias.
5. None of the other techniques in this document contains this same manufacturers bias.
6. The continued use of "GRIM" in the document implies support for an individual manufacturer in that this is a trademarked product name.

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LatentPrint\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0050

Comment on FR Doc # N/A

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## General Comment

Proposed Uniform Language Discipline Reviewed: AJ Morlan, Latent Examiner.

Statements Approved for Use in Expert Witness Testimony:

**Identification:**

A long winded way to say 'I Identified the Latent to the Known Print of the Defendant'. And if you are guessing at the ID, then it isn't an ID.

**Inconclusive:**

If you don't see it, don't ID it.

**Exclusion:**

Fingerprint Identification is a Positive process. I can identify a Print to an individual. Then I can draw some Reasonable conclusions: the subject touched this item, the subject was at this location, the subject may have knowledge of this crime.

Fingerprint Identification does not exist in the negative. I can not, with certainty, say a Latent was not made by a subject; this is mostly due to distortions which can alter the Latent to such an extent it no longer appears to be a match to the Known. But even if it were possible to 'Exclude' a Latent, that is a pointless statement since no Reasonable conclusions can be drawn.

Statements Not Approved for Expert Witness Testimony:

Exclusion of all other sources:

Fingerprints are so distinctive a Competent Examiner can Individualize the Print to the Exclusion of all others. The downside to this distinctiveness is that if a Latent looks very similar to a Known it will be a match 9 out of 10 times. As a result we have a serious problem with posers who are guessing at the Identifications and getting some of them wrong.

Absolute of Numerical Certainty:

All Courtroom testimony is made in terms of Absolutes: 'is this the guy you saw shoot up the car?' Fingerprints are so distinctive a Competent Examiner can be certain about his ID; and if you aren't certain, then you shouldn't be making the ID.

Zero Error Rate:

The Error Rate is Zero! There has never been a 'Mistaken Identification'. Rarely an examiner has chosen to lie about an Identification; but the vast majority of Bad IDs come from posers who simply guess wrong.



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**Comment On:** DOJ-OLP-2016-0012-0001

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Document:** DOJ-OLP-2016-0012-0051

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

RE: DEPARTMENT OF JUSTICE PROPOSED UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS FOR THE FORENSIC GLASS DISCIPLINE.

I find the proposed language especially problematic for forensic glass examiners if the laboratory does not have access to a viable and representative database. The proposed conclusions have one strong compositional comparison association statement with no means of assessing the significance of the results should the user not have their own reference collection or database. No statement is made to also permit use of published discrimination studies to attempt to assess evidential significance.

RE: DEPARTMENT OF JUSTICE PROPOSED UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS FOR THE FORENSIC TEXTILE FIBER DISCIPLINE

I find the proposed language problematic for forensic textile examiners for several reasons. First, in the Inclusion category, there is no weight given to the nature of the transferred material. Is the significance of a blue cotton fiber transfer the same as a transfer of a green trilobal nylon 6-6 fiber? There should be language to draw attention to the differences?

Secondly, in the Inclusion language it states "that exhibit the same microscopic characteristics and optical properties." Are not other analytical techniques used, such as melting points, infrared spectroscopy, or pyrolysis gas chromatography? Published SWGMAT(ASTM?) guidelines would indicate that is so and the proposed statement of "microscopic characteristics and optical properties" is inconsistent with those consensus documents.

Finally, in summary of the currently offered DOJ list of trace evidence materials, I find it impossible to evaluate the few presented currently until I see what is offered for the other categories of materials, such as paint, tapes, adhesives, metals, hairs, etc. Perhaps it would be prudent to offer all for public comment after all have been posted? Perhaps a common scale of conclusions could be reached for all trace evidence materials.

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Footwear Tiretread\_pULTR\_05252016

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Comment on FR Doc # N/A

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## General Comment

See attached file(s)

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## Attachments

Response Proposed Uniform Language V

## Proposed Uniform Language Discipline Reviewed: THE FORENSIC FOOTWEAR AND TIRE IMPRESSION DISCIPLINE

**Reviewer Name:** John Buckleton <sup>a</sup>, Christophe Champod <sup>b</sup>, Ian W. Evett <sup>c</sup>, Simone N. Gittelson <sup>d</sup>, Graham Jackson <sup>e</sup>

### Reviewer Organization:

a Environmental Science & Research, PB 92021, Auckland, New Zealand

b Ecole des Sciences Criminelles, Université de Lausanne, BCH, 1015 Lausanne-Dorigny, Switzerland

c Principal Forensic Services Ltd, London [www.principalforensicservices.com](http://www.principalforensicservices.com)

d National Institute of Standards and Technology, Gaithersburg, MD 20899-8980, USA

e University of Abertay Dundee, DD1 1HG, United Kingdom

### Statements Approved for Use in Laboratory Reports and Expert Witness Testimony

*Provide a summary of your assessment of the statements approved for use, including the most important highlights from the individual criteria comments.*

- *The statements approved for use are supported by scientific research.*

We thank the committee for the opportunity to comment on the proposed guidelines. We would suggest that several of the statements could benefit from revision. We discuss the statements, "probably made" and "could have made." The comments we make about these statements are general comments that apply equally to all types of expert evidence.

*Probably made:* This statement is not supported by scientific research. In fact scientific research, judgments in some jurisdictions and official reports suggest that that they are highly inappropriate statements to make. The statement "probably made" refers to what is known as a "posterior" probability. That is, the probability of the proposition that the shoe made the impression given the observations made on the questioned impression and on the known source. It is widely accepted that such a statement cannot be made from these observations alone. Let us use the following abbreviations:

*E:* the footwear evidence, consisting of the observations made on the questioned impression and on the known source,

*H<sub>p</sub>:* the proposition that the shoe made the impression,

*H<sub>d</sub>:* the proposition that another shoe made the impression,

*I:* the technical knowledge (e.g. the type of shoes, its production mode) and elements of the case circumstances (e.g. location, type of crime) that have a bearing on the assessment of the forensic observations (*E*).

According to the laws of probability:

$$\frac{\Pr(H_p | I)}{\Pr(H_d | I)} \times \frac{\Pr(E | H_p, I)}{\Pr(E | H_d, I)} = \frac{\Pr(H_p | E, I)}{\Pr(H_d | E, I)}.$$

The statement "probably made" suggests a non-numerical assessment of  $\Pr(H_p | E, I)$ . As illustrated by the above equation, this value cannot be obtained from an examination of *E* by

itself. Instead it requires an assessment of several other terms such as  $\Pr(E|H_p,I)$ ,  $\Pr(E|H_d,I)$  and the prior odds  $\Pr(H_p|I)/\Pr(H_d|I)$ . Note that the prior odds are based on other case information and evidence of which the footwear examiner does not have, and often should not have, knowledge. Giving this information to a forensic scientist has been shown to bias the scientist's conclusions regarding  $E$ . Scientific research therefore recommends forensic scientists to only make statements about  $\Pr(E|H_p,I)$  and  $\Pr(E|H_d,I)$ .

We would therefore suggest that the statement "probably made" is more than simply not supported by scientific research but specifically precluded.

Unfortunately much, but not all, of the commonly used reference material for shoeprint and tire impression evidence repeats these errors and hence we have a self-perpetuation of the logical inconsistency.

The NRC report ([1] at pages 148-149) has a section on the scientific interpretation and reporting of results for each evidence type. For shoeprint and tire impressions it repeats without recommendation the SWGTREAD 2006 terminology<sup>1</sup>. Later in the NAS report is a differing statement (pp. 185-186) "*Publications such as Evett et al. [2], Aitken and Taroni [3], and Evett [4] provide the essential building blocks for the proper assessment and communication of forensic findings.*"

The three referenced articles point to reporting based on likelihood ratios whether these are developed numerically or not. The building blocks referred to in the NRC report all espouse a reporting scheme based on the concept of a likelihood ratio. That framework set the standard for appropriate forensic reporting and obviously constrains the language to be used by forensic scientists to report their findings. The likelihood ratio framework is the one promoted by the European Network of Forensic Science Institute (ENFSI) and it applies to all forensic science disciplines. We would like to draw the attention not only to the ENFSI guideline [5] but also to a primer prepared for legal practitioners [6]. We can only advise to strive for reporting solutions that are aligned with international practice as well.

The terms in the current proposal seem to align better with the 2006 SWGTREAD guidelines rather than the update in 2013. The table below provides a summary of the main proposals that we came across in the recent literature. It shows the difficulty to come to a consensus.

Part of the ENSFI marks working group conclusion scale [5, 6]. Termed ENSFI 1.	Bodziak [7] pp 372-374	Part of the ENSFI marks working group conclusion scale[5, 6] Termed ENSFI 2.	SWGTREAD 2006	SWGTREAD 2013 <sup>2</sup> This also appears in Bodziak[7]	DOJ proposal
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<sup>1</sup><http://www.swgtread.org/standards/archived-standards>

<sup>2</sup>[http://www.swgtread.org/images/documents/standards/published/swgtread\\_10\\_conclusions\\_range\\_201303.pdf](http://www.swgtread.org/images/documents/standards/published/swgtread_10_conclusions_range_201303.pdf)

Identification	Positive identification	Identification	Identification	Identification	Identification
Very strong support for proposition A	Probably made	Very probably	Probably made	High degree of association	Probably made
Strong support				Association of class characteristics	
Moderately strong support	Possibly made	Probably	Could have		Limited association of class characteristics
Moderate support					
Limited support					
Inconclusive		Inconclusive	Inconclusive	Lacks sufficient detail	Could Not Be Determined
Limited support for proposition B	Possibly did not make	Likely not	Probably did not	Indications of non-association	Indications Did Not Make
Moderate support					
Moderately strong support					
Strong support					
Very strong support					
Elimination	Non-identification	Elimination	Elimination	Exclusion	Elimination
			Unsuitable		Unsuitable

*Could have made:* The statement ‘could have made’ is more innocuous but comes with its own limitations. The statement ‘could have made’ can be categorized as an ‘explanation’ and, as such, the explanation proposed (‘the shoe could have made the mark’) is only one of an unspecified number of alternative explanations. (For further discussion of the strengths and limitations of ‘explanations’, see [8, 9])

It is suggested that “This opinion indicates an association of class characteristics (i.e., outsole design and physical size for shoes, tread design and tread dimension for tires) between the questioned impression and the known source. Correspondence of general wear may also be present.” This is part of the established belief in the US that class matches are close to valueless. The argument proceeds along the lines that there could be a great many other shoes that would also match. Since the proposed scale includes “indications did not make” we assume that this category is a match of class features with no indications from wear or acquired characteristics that the shoe did not make the print.

We would suggest that the proposed statement “could have made” is very unhelpful to the court. The only thing it says is that the prosecution’s proposition is not impossible, that is,

$\Pr(H_p | E, I) \neq 0$ . Such thinking arises, in part, from concerns about quantifying the value of correspondence based on class characteristics alone. There is, indeed, some difficulty in quantifying this, but certainly not sufficient to “write off” matches based on class characteristics with a phrase such as “could have made” which would invite the fact finder to insert some value that could be almost anything. We would feel that this is a dereliction of the duty of a forensic professional.

In the US attempts to quantify the value of class matches have centered around sales data and emphasized that this is incomplete. Copy-cat shoes are often also mentioned. These are false fears. First copy-cat shoes are seldom exactly the same pattern as the original but this is simply immaterial. Sales data is not the best way to proceed. Even if complete we would need to adjust these data considerably. What is desired is the proportion of offender shoeprints at crime scenes that have the same pattern as this crime scene [10] and it is very unlikely that sales data would give this. It is much better to do a survey of some relevant population of shoes or shoeprints. Even small surveys demonstrate a great diversity of outsole pattern [11-13]. The most common shoe type such as CCTAS has many mold variants. So that even a class match has value, and clearly much more than for example blood grouping.

### Suggestions

The 2013 SWGTREAD and 2016 Bodziak scale does not suffer from the main objections we have raised and is, after all, more recent. A move to that scale, while not being what we would recommend or prefer, would be a strong step forward. However a move to this scale (2013 SWGTREAD and 2016 Bodziak) plus a little bit of wordsmithing would begin the process of aligning this scale with the ENSFI scale and start a move to international consensus.

SWGTREAD 2013 <sup>3</sup>	Our suggestions
Identification	The shoe (item x) made the questioned impression (item y)
High degree of association	Strong support for the proposition that the shoe made the impression based on a high degree of correspondence of acquired characteristics
Association of class characteristics	Support for the proposition that the shoe made the impression based on a correspondence of class characteristics
Limited association of class characteristics	Limited support for the proposition that the shoe made the impression based on a limited correspondence of class characteristics
Lacks sufficient detail	Lacks sufficient detail

<sup>3</sup>[http://www.swgtread.org/images/documents/standards/published/swgtread\\_10\\_conclusions\\_range\\_201303.pdf](http://www.swgtread.org/images/documents/standards/published/swgtread_10_conclusions_range_201303.pdf)

Indications of non-association	Support for the proposition that the shoe did not make the impression based on indications of non-correspondence
Exclusion	The shoe (item x) did not make the questioned impression (item y)

We view this suggestion as a needed intermediate step, however it still has some room for improvement that the committee may want to consider as well or in due time. One difficulty lies with the terms “identification” and “exclusion” that do not find an easy place in the scale without an appropriate caveat. Indeed all other statements could be read as proper expressions of likelihood ratios. However when experts conclude to “identification” or “exclusion”, they take a decision on the issue that is often based on more than a likelihood ratio. The paper by Biedermann *et al.* [14] gives a recent overview of how decision theory rightly applies to the two above opinions. The committee may want to add a statement making clearer the exact nature of these decisions.

## References

- [1] Committee on Identifying the Needs of the Forensic Sciences Community NRC. Strengthening Forensic Science in the United States: A Path Forward. Washington, D.C.: National Academy Press; 2009.
- [2] Evett IW, Jackson G, Lambert JA, McCrossan S. The Impact of the Principles of Evidence Interpretation on the Structure and Content of Statements. *Science and Justice*. 2000;40:233-9.
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- [4] Evett IW. The Theory of Interpreting Scientific Transfer Evidence. *Forensic Science Progress*. 1990;4:141-79.
- [5] Willis SM, al. ENFSI Guideline for Evaluative Reporting in Forensic Science. Dublin: European Network of Forensic Science Institutes; 2015.
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- [12] Benedict I, Corke E, Morgan-Smith R, Maynard P, Curran JM, Buckleton J, et al. Geographical variation of shoeprint comparison class correspondences. *Science and Justice*. 54:335-7.
- [13] Hancock S, Morgan-Smith R, Buckleton J. The interpretation of shoeprint comparison class correspondences. *Science & Justice*.
- [14] Biedermann A, Bozza S, Taroni F. The decisionalization of individualization. *Forensic Sci Int*. 2016;266:29-38.

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0015

Toxicology\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0053

Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

Item #6 of the Statements Approved for Toxicology Testimony and/or Laboratory Reports does not address subtherapeutic concentrations of drugs. This is an oversight that should be corrected. There are many drugs which may significantly impact a toxicological case if the drug concentration in the blood is insufficient to control the intended disease state. An example would be any of the numerous antiepileptic drugs (e.g., levetiracetam, phenobarbital, diphenylhydantoin, lamotrigine, carbamazepine). In both postmortem and drugs in driving cases subtherapeutic concentrations would be significant if the decedent or the driver did not comply with their pharmacotherapy and had a seizure. There are so many other examples this should be included and addressed.

The order of the 10 approved statements should be reorganized grouping similar topics together, i.e., #7, 8, and 10 together #9 moved up with #1 -6.

Item #2 of the Statements Not Approved For Toxicology Testimony and/or Laboratory Reports is too limiting and restrictive of the toxicologist. If the toxicologist has reviewed other significant forensic evidence in a case (e.g., driving video, SFSTs, DRE reports/video, medical history, and toxicology reports in a drugs and driving case; or medical examiner's report, forensic investigator's reports, crime scene evidence, toxicology reports, etc. in a postmortem case) then the toxicologist should be able to form an opinion and/or address questioning based on the total evidence presented to him/her. This would be specific to the individual/decedent tested. I agree to do so based solely on a toxicology report alone should not be done, but the toxicologist should not be restricted to only reviewing and considering the toxicology report in reaching his/her opinion concerning effects of a drug on



an individual/decedent. This is restricting the role of a professional toxicologist to that of being just an analyst.

Item #1 of the Statements Not Approved For Toxicology Testimony and/or Laboratory Reports is too broad and too limiting. Agree that calculating a dose needed to produce a blood concentration of a drug is fraught with error in today's world of pharmaceuticals, but this does not allow the toxicologist to address this issue if questioned or challenged with just that evidence or data. Can the toxicologist state that a dose is not sufficient to produce a blood concentration found in a case? What if he/she is presented with data from another forensic professional (e.g., medical examiner, psychiatrist, lawyer, etc.) making a claim that is outright incorrect and no way obtainable? What about the postmortem case where the whole bottle of pills is missing, the decedent leaves a suicide note and part of the pills are found in the gastric contents, can any estimation of absorbed dose be made and/or addressed? This statement is too simplified and will lead to harming toxicologists.

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**Comment On:** DOJ-OLP-2016-0012-0001

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Document:** DOJ-OLP-2016-0012-0054

Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

Proposed Uniform Language Discipline Reviewed: Footwear & Tire Track Impressions

I disagree with the proposed language due to it not accurately reflecting consensus amongst impression examiners who are currently active and keep current with literature. The SUPPORTING DOCUMENTATION listed on the US DOJ website heavily references publications by author and impressions expert W. Bodziak as well as SWGTREAD guidelines; however, when reviewing the accompanying PROPOSED LANGUAGE document, the Range of Conclusions reporting language listed is that used in the past and INCONSISTENT with the Range of Conclusions published on SWGTREAD's website (2013 version). Expert W. Bodziak also currently teaches the 2013 SWGTREAD Range of Conclusions in his courses.

Bodziak as well as other authors also no longer use the term 'individual characteristic'. The archaic term has been replaced with 'Randomly Acquired Characteristics' also known as 'RAC' For an example of peer consensus, please see:

Bodziak's most recent book, "Forensic Footwear Evidence" (CRC 2016), pages 323 and 380.

Snyder, C. A Comparison of Photography and Casting Methods of Footwear Impressions in Different Sandy Soil Substrates. Journal of Forensic Identification, 66(1), pp. 37-58. January/February 2016.

Raymond, J. and Sheldon, P. Standardizing Shoemark Evidence-An Australian and New Zealand Collaborative Trial. Journal of Forensic Identification, 65(5), pp. 868-883. September/October 2015.

Additionally the International Association for Identification (IAI), which is an organization that certifies footwear examiners, refers to SWGTREAD as a valuable training source.

ALTERNATIVE PROPOSAL: Defer to the 2013 (or newer) SWGTREAD reporting guidelines until such a time

the the OSAC subcommittee on Footwear & Tire Track impressions publishes recommendations.

Thank you for your consideration,

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0002

Fiber\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0055

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Cheryl Lozen

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## General Comment

It seems like the Statistical Weight and Error Rate statements should be consistent between the different discipline documents where applicable (see fibers vs footwear for example).

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**Comment On:** DOJ-OLP-2016-0012-0006

Gen Chem\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0056

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Cheryl Lozen

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## General Comment

"8. The examiner may report and/or state the limitations of his/her examinations and opinions." - Shouldn't this "may" be a "must"?

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**Comment On:** DOJ-OLP-2016-0012-0011

LatentPrint\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0057

Comment on FR Doc # N/A

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## General Comment

I concur with the proposed

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**Comment On:** DOJ-OLP-2016-0012-0006

Gen Chem\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0058

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

"5. The examiner may report and/or state the weight or volume of a substance which was examined. The weight or volume reported will include an associated estimated measurement uncertainty and confidence level."

First off, it needs to be remembered for whom the reports are to be written. It is seriously doubtful that trained metrologists are the intended recipients. There needs to be a reasonable way to convey measurement uncertainty that the juror with the 8th grade education can understand. The current approach is barely understandable to the forensic scientist let alone the jury. In addition, even metrologists can't agree on how to handle the measurement uncertainty in a situation where the greatest error is how much of a powder was taken out of a container. Until this issue is addressed, all of the uncertainty from number of weighing events, environmental conditions, balance issues etc. is a completely useless exercise except to prove the balance manufacturers correct with the +/- amount stated on the balance itself. To suggest otherwise is a scientifically bankrupt exercise.

Thus, measurement uncertainty should not be a report requirement until the above issues are addressed in an intelligent and forthright manner.

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0004

Footwear Tiretread\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0059

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

See attached file

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## Attachments

Impression comments



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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0002

Fiber\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0060

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

See attached file

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## Attachments

DOJ Proposed uniform fiber language comments

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0014

Toxicology\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0061

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

In the Proposed Language for Toxicology section there was no mention of utilizing observations of driving or observations obtained during SFST and/or DRE examinations. When combined with the toxicology results these observations can be a potentially valuable source of information in the formulation of opinion testimony in drug DUI cases. Do these omissions mean that DOJ considers that utilizing these observations is 'not approved?' Was the intent of this document to assume an examiner will only have the toxicology results available in formulating an opinion?

Does # 4 (under Statements Not Approved) refer solely to a drug concentration in a urine sample, in the absence of any other observations, or does it mean that regardless of any other observations available (observations of driving, observations by the officers such as SFST/DRE) the fact that urine was the matrix means that an examiner may never state an opinion of impairment in a drug DUI?

# 2 (under Statements Not Approved) is unclear. Does it mean an examiner may state an "interpretation of the effects of a drug" only for posed hypothetical scenarios, but not specifically referring to the defendant of the current drug DUI case? Was the intent of #2 to say that offering an opinion of impairment in a specific drug DUI case is never approved under any circumstances?

# 4 (under Statements Approved) is confusing. Does it mean opinion testimony (in a drug DUI case for example) is limited to the effects of the drug on people in general but the examiner must stop short of rendering an opinion of impairment in a particular drug DUI case?

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0004

Footwear Tiretread\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0062

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Ted Schwartz

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## General Comment

I am fine with the "Statements Not Approved for Use in Laboratory Reports and Expert Witness Testimony"

I am fine with the "Statements Approved for Use in Laboratory Reports and Expert Witness Testimony" with the exceptions listed below:

Identification: Why say that it is "...his/her opinion that the shoe is the source.."? If it is the source, there can be no "opinion". If it made it, it made it, and anyone doing this type of analysis should agree with that conclusion. Anything else is NOT an identification. And the last sentence:

"This opinion acknowledges that an identification to the exclusion of all others can never be empirically proven."

Then should we be saying "identification"?

Probably Made: This statement implies a probability, i.e. statistics. WE DO NOT KNOW what the chances of a match are, and therefore should not be using the word "probably". In fact, in this same document, the following is stated:

"Statistical Weight

3. The examiner may not state a numerical value or probability associated with his/her opinion. Accurate and reliable data and/or statistical models do not currently exist for making quantitative determinations regarding the forensic examination of footwear/tire impression evidence."

By saying "Probably Made", it is completely contradicting the above statement.

This category should be a "Could Have Made" statement, where all the matching characteristics are listed.

Indications Did Not Make: I personally feel that this is a terrible statement to use. If there are indications that the known did not make the impression, then it is an "Elimination". And if someone is not sure, then it is either an "Unsuitable" or a "Could Not Be Determined".

I personally think it sounds like a bias statement the way it is written. Aren't we trying to get away from bias statements?

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**Comment On:** DOJ-OLP-2016-0012-0002

Fiber\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0063

Comment on FR Doc # N/A

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## Submitter Information

**Name:** David Northrop

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## General Comment

As previously commented, the COMPARISONS section only allows for "Inclusion" and "Exclusion". Sometimes, the examined characteristics are all the same, but the sample is too limited to conduct sufficient examination to either include or exclude. Some sort of inconclusive or other qualified conclusion should be available as long as the reasons are properly justified.

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**Comment On:** DOJ-OLP-2016-0012-0003

Fiber\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0064

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

..."Of the 2083 compared fibers, 1979 (95%) were distinguished utilizing comparison microscopy and polarized light microscopy, while the remaining 5% were distinguished with fluorescence microscopy and microspectrophotometry". - 'Microspectrophotometry' is incorrectly spelled.

"If the fibers are indistinguishable utilizing the applicable techniques described above, it can be concluded that the fibers are consistent with originating from the same item, or another item comprised of fibers that exhibit the same microscopic characteristics and optical properties. If the fibers can be distinguished using any of the techniques described above, it can be concluded that the fibers are not consistent with originating from the same item."

Comment: What if the fibers have the same properties in all tests except they differ in fluorescence due to exposure to sunlight/degradation etc...Does this mean they are not originating from the same item??? There needs to be some caveat that says you assume the control samples collected for comparison to an unknown are representative of the control item...and a blanket statement such as the above may not fit every case especially with variations in fluorescence.

"In some cases, clothing and carpets have been subjected to relatively distinctive environmental conditions (e.g., sunlight exposure or laundering agents) that impart characteristics that can distinguish particular items from others from the same manufacturing lot."

Comment to the above quote from the document:

The features imparted by exposure to environmental factors do not mean that two items are necessarily from different sources or from different lots. For example, an unknown fiber could have been exposed on a dead body that was left in the open exposed to sunlight for a period of time; yet still be from a carpet found in a suspect's home some months later even though fluorescent properties are different and all other properties are the same.



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**Comment On:** DOJ-OLP-2016-0012-0015

Toxicology\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0065

Comment on FR Doc # N/A

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## General Comment

Section C.

"Detection:

Positive results are obtained for a mass spectrometric method for an analyte in one sampling of a biological specimen but there is not enough remaining sample volume to perform a second confirmatory analysis"

The word "detected or detection" does NOT convey that something was not confirmed. This should be amended to "Detected but not confirmed" or "Indicated but not confirmed".



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LatentPrint\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0066

Comment on FR Doc # N/A

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## Submitter Information

**Name:** OSAC Friction Ridge Sub

**Organization:** Organization of Scientific Area Committees

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## General Comment

The Friction Ridge Subcommittee (FRS) of the Organization of Scientific Area Committees (OSAC) has reviewed the Department of Justice's (DOJ) proposed Uniform Language for Testimony and Reports (ULTR) for the Forensic Latent Print Discipline and related Supporting Documentation documents. The FRS applauds the efforts of the DOJ to propose standardized language across all DOJ laboratories as well as afford the opportunity for the community to comment. The FRS does have a few suggestions to improve upon the draft ULTR and supported documentation. Please reference the attached document for the full comment and proposed recommendations.

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## Attachments

FRS response to DOJ Uniform Language\_Final

The Friction Ridge Subcommittee (FRS) of the Organization of Scientific Area Committees (OSAC) has reviewed the Department of Justice's (DOJ) proposed Uniform Language for Testimony and Reports (ULTR) for the Forensic Latent Print Discipline and related Supporting Documentation documents. The FRS applauds the efforts of the DOJ to propose standardized language across all DOJ laboratories as well as afford the opportunity for the community to comment. The FRS does have a few suggestions to improve upon the draft ULTR and supported documentation.

- (1) Purpose and Scope: The OSAC FRS is in the process of developing standards and guidelines which are intended to standardize the language used to convey conclusions in reports and testimony. The FRS recognizes that the DOJ may wish to provide standardization and guidance in the interim; however, the FRS recommends the DOJ maintain flexibility to adjust as the OSAC standards are developed. Accordingly, the FRS recommends the DOJ add a statement to the effect that this is a living document that will be updated as new standards are developed by the OSAC.
- (2) The Disclaimer states: "This document provides examples of the scientifically-supported conclusions and opinions that may be contained in Department of Justice reports and testimony." The FRS recommends rewording this sentence to state "This document provides examples of acceptable means of expressing conclusions and opinions that may be contained in Department of Justice reports and testimony." By doing so, the document more appropriately limits itself to how the DOJ will allow conclusions to be stated, without claiming that the conclusions themselves are scientifically-supported.
- (3) Each of the three conclusions suggests that examiners may "state or imply" something. While it is appropriate to *forbid* an examiner to imply something that ought not to be implied, testimony that is being given should be made explicit for the comprehension of the fact finder and examiners should not be encouraged to *imply* anything.
- (4) Under "Identification", examiners are told they may "state or imply that an identification is the determination that two friction ridge prints originated from the same source..." but under "Exclusion of All Other Sources" they are told that they "may not state or imply that two friction ridge prints originated from the same source to the absolute exclusion of all other sources." This guidance may be considered inconsistent and confusing. Other commentators<sup>1</sup> have already noted that the mere removal of the words "to the exclusion of all others" does not remove their implication and that the implication is inappropriate<sup>2</sup>. If a statement is made that "two friction ridge prints originated from the same source", then *de facto*, they could not have been made by any other source. By using the exact same language in the proposed allowable language and unallowable language with the exception of those few words, unnecessary confusion

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<sup>1</sup> S A Cole (2014). "Individualization Is Dead, Long Live Individualization! Reforms of Reporting Practices for Fingerprint Analysis in the United States," *Law, Probability and Risk* 13(2): 117–50, doi:10.1093/lpr/mgt014.

<sup>2</sup> NIST (National Institute of Standards and Technology) and Expert Working Group on Human Factors in Latent Print Analysis (2012). "Latent Print Examination and Human Factors: Improving the Practice Through a Systems Approach," M. Taylor and S. Ballou. Gaithersburg, MD.

may be introduced, as the two phrases say the exact same thing, with the exception that in one the exclusion of all others is explicitly stated, and in the other, it is merely implied.

- (5) The FRS recognizes that the use of the word “identification” has been met with criticism. Nevertheless, the term is still currently considered a common reporting practice throughout the friction ridge community. If the DOJ wishes to maintain use of the word “identification”, it should include a statement explicitly acknowledging the potential for error. Recognizing the “identification” is in the framework of a “decision”, the FRS recommends (a) the DOJ replace the word “determination” with “decision” which is more consistent with the language used in the SWGFAST standard and (b) include a statement that recognizes the possibility of two impressions having indistinguishable ridge detail yet originating from different sources (perhaps something along the lines of “For an identification to be declared, the examiner has judged that the data is demonstrable and will withstand scrutiny to the degree that the probability\* of a wrong association is so limited that it has been discounted”).
- (6) Similarly, the same recommendation applies to the language under “Exclusion”. The phrase “in disagreement” should be replaced by, “such that the examiner would not expect to see that same level of disagreement between two impressions from the same source. For an exclusion to be declared, the examiner has judged that the data is demonstrable and will withstand scrutiny to the degree that the probability\* of a wrong exclusion is so limited that it has been discounted”.
- (7) “Inconclusive” is incomplete and does not consider the degree to which the friction skin information is in agreement or disagreement. If “correspondence” is required for “identification”, and “disagreement” is required for “exclusion”, the FRS recommends the inconclusive language to be more explicit and include both “. . . there is insufficient quality, quantity, and specificity of corresponding information such that the examiner is unable to identify the source of the print” and “. . . there is insufficient quality and quantity of information in disagreement such that the examiner is unable to exclude the source of the print”.
- (8) While the use of methods to numerically calculate the certainty of a conclusion are not yet readily available for operational use, the FRS recognizes the methods are in development. The FRS agrees entirely that it is inappropriate to state or imply absolute certainty in any conclusion. However, the FRS does not agree that numerically calculated conclusions should be forbidden indefinitely. When a numerical weight of an association can be calculated using a method validated by the relevant scientific community, there is no reason to preclude its use.
- (9) The Supporting Documentation seems to include several suggestions that are considered unsubstantiated, outdated, or vague. Following are a few examples.
  - a. The suggestion that conclusions are “supported by the examiner’s ability to assess the frequency of features and rarity of configurations” does not have any

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\* The term "probability" is used here as it is technically appropriate. The terms "likelihood", "possibility", or "chance" are also acceptable as they are colloquially synonymous for lay interpretation.

references demonstrating that examiners have this ability or requirement that they document their estimates of rarity and where they got them.

- b. As a second example, the document continues to refer to the term “unique” when describing the rarity of observing friction ridge skin features being reproduced in another impression. While the available literature does provide support for this to be a rare occurrence, the friction ridge community is moving away from the use of the word “unique”. The FRS recommends replacing the word “unique” with a more appropriate term to describe the highly discriminating nature of friction skin features.
- c. As a third example, the document states that “there are different methodologies and processes for conducting a latent print examination” and that it will share “some appropriate processes”, but then only addresses one (ACE-V). It further states that ACE-V is applied and documented in a “linear-type fashion”. As written, this statement implies both that there are several accepted methods and that ACE-V is only practiced linearly (i.e. from A to C to E to V) without affording the analyst the opportunity to re-evaluate their initial interpretation. Since the document does not discuss any other accepted method of comparison, and ACE-V is often performed and documented recursively (i.e. the Analysis may be revisited once Comparison is begun, so long as it is transparently documented), the FRS recommends these statements be clarified or removed to ensure the reader interprets according to the intent of the DoJ.

NOTE: This response is the consensus view and opinion of the FRS and does not necessarily reflect the views and opinions of the Physics/Pattern SAC or FSSB.

# PUBLIC SUBMISSION

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0010

LatentPrint\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0067

Comment on FR Doc # N/A

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## Submitter Information

**Name:** OSAC Friction Ridge Sub

**Organization:** Organization of Scientific Area Committees

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## General Comment

The Friction Ridge Subcommittee (FRS) of the Organization of Scientific Area Committees (OSAC) has reviewed the Department of Justice's (DOJ) proposed Uniform Language for Testimony and Reports (ULTR) for the Forensic Latent Print Discipline and related Supporting Documentation documents. The FRS applauds the efforts of the DOJ to propose standardized language across all DOJ laboratories as well as afford the opportunity for the community to comment. The FRS does have a few suggestions to improve upon the draft ULTR and supported documentation. Please reference the attached document for the full comment and proposed recommendations.

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## Attachments

FRS response to DOJ Uniform Language\_Final

The Friction Ridge Subcommittee (FRS) of the Organization of Scientific Area Committees (OSAC) has reviewed the Department of Justice's (DOJ) proposed Uniform Language for Testimony and Reports (ULTR) for the Forensic Latent Print Discipline and related Supporting Documentation documents. The FRS applauds the efforts of the DOJ to propose standardized language across all DOJ laboratories as well as afford the opportunity for the community to comment. The FRS does have a few suggestions to improve upon the draft ULTR and supported documentation.

- (1) Purpose and Scope: The OSAC FRS is in the process of developing standards and guidelines which are intended to standardize the language used to convey conclusions in reports and testimony. The FRS recognizes that the DOJ may wish to provide standardization and guidance in the interim; however, the FRS recommends the DOJ maintain flexibility to adjust as the OSAC standards are developed. Accordingly, the FRS recommends the DOJ add a statement to the effect that this is a living document that will be updated as new standards are developed by the OSAC.
- (2) The Disclaimer states: "This document provides examples of the scientifically-supported conclusions and opinions that may be contained in Department of Justice reports and testimony." The FRS recommends rewording this sentence to state "This document provides examples of acceptable means of expressing conclusions and opinions that may be contained in Department of Justice reports and testimony." By doing so, the document more appropriately limits itself to how the DOJ will allow conclusions to be stated, without claiming that the conclusions themselves are scientifically-supported.
- (3) Each of the three conclusions suggests that examiners may "state or imply" something. While it is appropriate to *forbid* an examiner to imply something that ought not to be implied, testimony that is being given should be made explicit for the comprehension of the fact finder and examiners should not be encouraged to *imply* anything.
- (4) Under "Identification", examiners are told they may "state or imply that an identification is the determination that two friction ridge prints originated from the same source..." but under "Exclusion of All Other Sources" they are told that they "may not state or imply that two friction ridge prints originated from the same source to the absolute exclusion of all other sources." This guidance may be considered inconsistent and confusing. Other commentators<sup>1</sup> have already noted that the mere removal of the words "to the exclusion of all others" does not remove their implication and that the implication is inappropriate<sup>2</sup>. If a statement is made that "two friction ridge prints originated from the same source", then *de facto*, they could not have been made by any other source. By using the exact same language in the proposed allowable language and unallowable language with the exception of those few words, unnecessary confusion

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<sup>1</sup> S A Cole (2014). "Individualization Is Dead, Long Live Individualization! Reforms of Reporting Practices for Fingerprint Analysis in the United States," *Law, Probability and Risk* 13(2): 117–50, doi:10.1093/lpr/mgt014.

<sup>2</sup> NIST (National Institute of Standards and Technology) and Expert Working Group on Human Factors in Latent Print Analysis (2012). "Latent Print Examination and Human Factors: Improving the Practice Through a Systems Approach," M. Taylor and S. Ballou. Gaithersburg, MD.

may be introduced, as the two phrases say the exact same thing, with the exception that in one the exclusion of all others is explicitly stated, and in the other, it is merely implied.

- (5) The FRS recognizes that the use of the word “identification” has been met with criticism. Nevertheless, the term is still currently considered a common reporting practice throughout the friction ridge community. If the DOJ wishes to maintain use of the word “identification”, it should include a statement explicitly acknowledging the potential for error. Recognizing the “identification” is in the framework of a “decision”, the FRS recommends (a) the DOJ replace the word “determination” with “decision” which is more consistent with the language used in the SWGFAST standard and (b) include a statement that recognizes the possibility of two impressions having indistinguishable ridge detail yet originating from different sources (perhaps something along the lines of “For an identification to be declared, the examiner has judged that the data is demonstrable and will withstand scrutiny to the degree that the probability\* of a wrong association is so limited that it has been discounted”).
- (6) Similarly, the same recommendation applies to the language under “Exclusion”. The phrase “in disagreement” should be replaced by, “such that the examiner would not expect to see that same level of disagreement between two impressions from the same source. For an exclusion to be declared, the examiner has judged that the data is demonstrable and will withstand scrutiny to the degree that the probability\* of a wrong exclusion is so limited that it has been discounted”.
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- (8) While the use of methods to numerically calculate the certainty of a conclusion are not yet readily available for operational use, the FRS recognizes the methods are in development. The FRS agrees entirely that it is inappropriate to state or imply absolute certainty in any conclusion. However, the FRS does not agree that numerically calculated conclusions should be forbidden indefinitely. When a numerical weight of an association can be calculated using a method validated by the relevant scientific community, there is no reason to preclude its use.
- (9) The Supporting Documentation seems to include several suggestions that are considered unsubstantiated, outdated, or vague. Following are a few examples.
  - a. The suggestion that conclusions are “supported by the examiner’s ability to assess the frequency of features and rarity of configurations” does not have any

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references demonstrating that examiners have this ability or requirement that they document their estimates of rarity and where they got them.

- b. As a second example, the document continues to refer to the term “unique” when describing the rarity of observing friction ridge skin features being reproduced in another impression. While the available literature does provide support for this to be a rare occurrence, the friction ridge community is moving away from the use of the word “unique”. The FRS recommends replacing the word “unique” with a more appropriate term to describe the highly discriminating nature of friction skin features.
- c. As a third example, the document states that “there are different methodologies and processes for conducting a latent print examination” and that it will share “some appropriate processes”, but then only addresses one (ACE-V). It further states that ACE-V is applied and documented in a “linear-type fashion”. As written, this statement implies both that there are several accepted methods and that ACE-V is only practiced linearly (i.e. from A to C to E to V) without affording the analyst the opportunity to re-evaluate their initial interpretation. Since the document does not discuss any other accepted method of comparison, and ACE-V is often performed and documented recursively (i.e. the Analysis may be revisited once Comparison is begun, so long as it is transparently documented), the FRS recommends these statements be clarified or removed to ensure the reader interprets according to the intent of the DoJ.

NOTE: This response is the consensus view and opinion of the FRS and does not necessarily reflect the views and opinions of the Physics/Pattern SAC or FSSB.



# PUBLIC SUBMISSION

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**Comment On:** DOJ-OLP-2016-0012-0011

LatentPrint\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0068

Comment on FR Doc # N/A

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## Submitter Information

**Name:** W Watling

**Address:**

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**Phone:** (b) (6)

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## General Comment

The statements approved for use are supported by scientific research.  
The statements approved for use accurately reflect consensus language.  
The statements approved for use are stated clearly.

I agree with the above statements regarding the Latent Print Discipline. The only thing I would add is the fact that a subject CAN be Positively or Completely EXCLUDED from having made a specific latent fingerprint mark. I believe it should be stated in such a manner so as to be sure that it is understood that the subject could NOT have made the fingerprint in question under any condition, it simply is not theirs.

But then, maybe, I just do not trust attorneys because of the way they have a tendency to twist things around...and the way it is proposed may be sufficient.

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Document:** DOJ-OLP-2016-0012-0069

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Avis Buchanan

**Organization:** Public Defender Service for the District of Columbia and the Los Angeles County Public Defender

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## General Comment

See attached file(s)

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## Attachments

DOJ Uniform Language Final Submission\_07 07 2016

THE  
PUBLIC  
DEFENDER  
SERVICE  
*for the District of Columbia*



Avis E. Buchanan  
*Director*

Rudolph Acree, Jr.  
*Deputy Director*

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July 5, 2016

Office of the Deputy Attorney General  
Department of Justice

**Re: Docket No. OLP 157-- Proposed Uniform Language for  
Testimony and Reports in Forensic Science Disciplines**

To Whom it May Concern:

Thank you for providing the public with the opportunity to comment on the Department of Justice Uniform Language for Testimony and Reports. The Public Defender Service for the District of Columbia (PDS) submits the attached comments jointly with the Los Angeles County Public Defender.

PDS has been extensively litigating issues relating to forensic science evidence for many years and is committed to ensuring that forensic science evidence is presented accurately. PDS shares the concerns of many others that the way scientific testimony is presented in court often varies from examiner to examiner, from laboratory to laboratory, and from courtroom to courtroom. Also, examiners often fail to adequately explain the limitations of their conclusions to jurors and judges, hindering the ability of fact-finders to properly weigh scientific evidence. As the role of forensic science in courtrooms continues to grow, these problems will only be exacerbated.

While I appreciate that in drafting guidelines for reporting and testimony in forensic science disciplines, the Department of Justice (DOJ) recognizes these issues, I do not believe the proposed guidelines adequately resolve them. Moreover, the President's Council of Advisors on Science and Technology (PCAST) and the Organization of Scientific Areas Committees (OSAC) are also developing recommendations on reporting and testimony. While the involvement of scientists, statisticians, and researchers in developing DOJ's guidelines appears to have been limited, both PCAST and OSAC are composed of scientists who will approach drafting such guidelines with an eye towards making certain that they are scientifically valid.

I hope that DOJ seriously considers the comments of the Los Angeles County Public Defender and the Public Defender Service for the District of Columbia. If you have any questions about the comments, please feel free to contact me.

Sincerely,

Avis E. Buchanan  
Director

Enclosure



LAW OFFICES OF THE  
LOS ANGELES COUNTY PUBLIC DEFENDER

July 8, 2016

**RONALD L. BROWN**  
PUBLIC DEFENDER

Office of the Deputy Attorney General  
Department of Justice

**Re: Docket No. OLP 157-- Proposed Uniform Language for  
Testimony and Reports in forensic science disciplines**

To Whom it May Concern:

I would like to thank you for providing this opportunity to offer comments to the Department of Justice Uniform Language for Testimony and Reports. The comments attached to this letter are being submitted jointly by the Los Angeles County Public Defender and Public Defender Service for the District of Columbia. The Los Angeles County Public Defender's Office has a strong interest in ensuring forensic science evidence is accurately presented and that forensic examiners not mislead lay jurors regarding the strength of their opinions. I understand these guidelines as written, do not apply to state and local crime laboratories and thus, do not directly affect my office. However, the Department of Justice and in particular the Federal Bureau of Investigation has a tremendous impact on how state and local laboratories operate. It is not uncommon for state and local labs to adopt standards developed by the FBI. Thus, these guidelines may very well be adopted by the laboratories in my jurisdiction.

The lawyers in my office have been actively litigating issues surrounding forensic science evidence for many years. There continue to be serious concerns about how such testimony is presented in court and how it is reported. Consequently I am pleased the Department of Justice is attempting to draft guidelines for reporting and testimony in recognition that there is a tremendous amount of inconsistency in how such testimony is presented and that forensic examiners frequently fail to accurately describe the limitations of their opinions.

However, as will be evident by my comments, I do not believe that the process by which these guidelines were drafted nor the substance of the guidelines adequately address these issues. Furthermore, I do not believe now is the appropriate time to attempt to promulgate such guidelines when organizations such as the Organization of Scientific Areas Committees and the President's Council of Advisors on Science and Technology are in the process of developing guidelines for reporting and testimony. These organizations are made of researchers and scientists who have an interest in ensuring the guidelines adopted are scientifically supported.

July 8, 2016  
Page 2

Because I understand you may not agree and choose nevertheless to move forward with these guidelines, I am also providing commentary on the individual guidelines as drafted. Should the Department of Justice choose to move forward, I strongly urge you submit the guidelines to a group of independent scientists before anything is adopted.

If you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ronald L. Brown".

Ronald L. Brown  
Los Angeles County Public Defender

Comments by the Public Defender Service for the District of Columbia  
and the Los Angeles County Public Defender on Department of Justice Proposed Uniform  
Language for Testimony and Reports

I. General Comments

1. While the Public Defender Service for the District of Columbia and the Los Angeles County Public Defender commend the Department of Justice (DOJ) for recognizing the real need for standards governing the reporting and testimony of forensic science examiners, the process by which DOJ is attempting to promulgate such guidelines is troubling. These guidelines are intended to guide forensic scientists and prevent them from testifying beyond the limits of the science. However, instead of convening a panel of independent experts to vet the proposed standards, DOJ is simply requesting the public at large, many of whom presumably have no scientific background, provide comments. DOJ suggests that this process is intended to constitute a peer review of the guidelines. However, this is far from what actual scientists consider peer review.
2. With no identified author, these proposed guidelines, in particular those related to the comparison disciplines, appear not to have been drafted or even vetted by statisticians or research scientists. This practice of developing guidelines in secret and without the input of statisticians or research scientists is yet another failure of the FBI to engage openly with the scientific community before making “scientific” claims. This practice is inconsistent with sound scientific practices and delays any advances the FBI might make toward reaching scientifically defensible language. We expect these proposed guidelines will receive criticism from the greater scientific community, though we would note that simply posting them on regulations.gov and waiting for comment is hardly a serious effort to engage with the scientific community.
3. DOJ is disseminating these guidelines at the same time the Organization of Scientific Areas Committees (OSAC) is struggling to produce standards for report writing and testifying within the various disciplines. The OSAC standards will be discipline-specific and, we hope, address the technical merit of the proposed testimony. In addition, the President's Council of Advisors on Science and Technology (PCAST) is working on a report that will address how forensic science testimony is presented and will presumably take a more restrictive approach than the DOJ guidelines. It is not clear how the proposed guidelines will be reconciled with what the OSAC and PCAST will produce.
4. The purpose of these guidelines is not entirely clear from the preamble; one purpose should be to provide some consistency in how examiners report and testify regarding their findings. Unfortunately, these guidelines appear to allow the examiner to disregard them entirely: every guideline states the examiner “may” state, report, or imply certain findings. The guidelines do not even suggest they should be followed or describe when they should be followed and when they may not apply.
5. The guidelines relating to disciplines that appear to have greater scientific underpinnings, such as toxicology, chemistry and glass comparison allow examiners report and testify

regarding measurement uncertainty and the limitations of their opinions, while the guidelines relating to disciplines with significantly less of a foundation in scientific research, such as shoeprint and fingerprint comparison, don't even address estimates of uncertainty and variability; possible sources of error and error rates; or limitations in the method, data, or conclusions. These guidelines need to address the above-described limitations as they apply to the particular discipline and require examiners to clearly state what is known and not known with respect to each before providing an opinion. Providing an opinion without first addressing estimates of uncertainty and variability; possible sources of error and error rates; and limitations in the method, data, or conclusions will result in misleading testimony.

## II. Individual Documents

### A. Glass Document

The document seems to permit the examiner to decide whether or not to offer probabilities. This would permit an examiner to choose not to offer a probability if the probability for example made it likely that there were many other glass fragments that shared the same physical properties and only provide a statistic when the statistic was compelling.

### B. Footwear, Tire and Latent Print Comparison

1. There are odd inconsistencies within these guidelines. For example, the shoe footwear and tire impression guidelines suggest the findings be reported as the opinion of the examiner while the latent print guidelines provide no such suggestion.
2. There does not appear to be any language in the pattern impression guidelines that requires the examiner to state that the findings are based on the examiner's subjective judgments.
3. It is troubling that these guidelines permit footwear, tire impression, and latent print examiners to state the examiner "would not expect to find that same combination (arrangement) of features repeated in another source" when there is no scientific basis for such a statement. Indeed, despite language suggesting no probability statements be made or implied, this does imply a probability. Below is an example of how this language might be presented in the courtroom.

Q. So let's be really clear. You believe that you—the science—you are—there's a—you are scientifically validated to testify that one person is the source of a fingerprint?

A. Yes.

Q. But you're not allowed to say to the exclusion of all others?

A. Correct.

Q. But when you say that one person is the source of the fingerprint, that's what you're saying.

A. No.

Q. What is the difference between one person being the source of the fingerprint and to the exclusion of all others?

A. So basically what I'm saying is that I've looked at this print, this latent print. I've looked at the standard. And the amount of information I've seen in agreement and the lack of

disagreement has led me to believe that they come from the same source. Now, because I have not compared this latent print to everyone else that ever lived, lived, will live, I cannot unequivocally state that there isn't a possibility, however remote, that somebody out there in the whole wide universe ever, might not have a fingerprint or a fingertip that could leave behind an impression that was similar enough to the latent print that I have that they could be easily confused. So I'm leaving open the door for that small theoretical possibility that somebody else could have a similar enough print to create confusion. . . . (Trial Transcript, State v. Doe, 2010, pp. 120–121).<sup>11</sup>

A lay audience will surely conclude this testimony suggests the examiner is using a scientifically validated method to determine that the latent and the source are one in the same and that all others cannot be excluded as the source of the latent print.

As mentioned above, this guideline does not offer adequate guidance on how to present the strength or limitations of conclusions. While the guidelines indicate that absolute or numerically-calculated statements of certainty are impermissible, they fail to describe how examiners should address certainty. Without addressing uncertainty, the guideline does not adequately improve the potential for misleading testimony.

#### C. General Chemistry

This guideline fails to require an examiner explain the limitations of his or her opinion. In addition, it permits an examiner to state that his conclusion regarding the portion of a substance tested applies to entire sample when there is a “reasonable assumption of homogeneity.” The guideline, however, provides no guidance for determining under what circumstances such an assumption may be made. Presumably, the assumption would apply when a sampling plan was employed, but it is difficult to tell if that is what was intended. Further, the guideline does not require the examiner to state the limitations of that assumption. The guideline appears to permit the use of unvalidated methods for the estimation of the concentration of a chemical and fails to require the examiner to provide the uncertainty involved in the opinion. This guideline states that the examiner may not report or state an opinion about “the exact source of a chemical” but does not state what may be reported.

#### D. Toxicology

This guideline allows the examiner to choose whether or not to report measurement uncertainty and whether or not to report the limitations of his or her opinion.

#### E. Textile/Fiber

With respect to the first sentence, “same microscopic characteristics and optical properties,” does not capture the full range of testing that should be done to conclude that the characteristics and properties are the same. This seems to invite a less robust, “I know it



when I see it,” subjectivity despite the chemical make up of synthetic fibers and dyes, and the tools available to do specialized testing.

But most troubling is the fourth sentence. Following the correct statement in the third sentence (“A fiber association is not a means of positive identification and the number of possible sources for a specific fiber is unknown.”), it states: “However, due to the variability in manufacturing, dyeing, and consumer use, one would not expect to encounter a fiber selected at random to be consistent with a particular source.”

This sentence invites a lay juror to speculate that the likelihood of a “random” match is very low (one would not expect it) but how low? - yet this is exactly the issue that the examiner cannot opine on given the absence of data on variability.

The use of the phrase “a fiber selected at random” also invites the fact-finder to consider the entire world of fibers – manmade and natural – that one could select at random, and the likelihood that they would share the same characteristics as the questioned fiber. Even with the entire world of fiber as the starting point, some fibers are so ubiquitous that the chance of a random match might be highly likely. Douglas Deedrick makes both points in the July 2000 FBI Forensic Science Communications – that the world is the starting point (which mistakenly assumes all fibers are randomly distributed throughout the world), but that even within it, white cotton and blue denim are too prevalent to be meaningful. He writes: “Once a particular fiber of a certain type, shape, and color is produced and becomes part of the fabric, it occupies an extremely small portion of the fiber/fabric population. Exceptions to this would be white cotton fibers and blue cotton fibers like those comprising blue jeans.”

“Variability in consumer use” might also contribute to the likelihood of a random match, rather than support the opinion that one would not expect to see it. Think, for instance, of the fibers used to create Cleveland Cavaliers jerseys if the relevant time for “consumer use” was after Game 7 of the 2016 NBA Finals.

Moreover, other factors than the variability in manufacturing, dyeing, and consumer use might increase the likelihood that a match was random, rather than decrease it. For instance, the permitted testimony completely disregards the results of experiments on persistence. If two weeks have passed while a garment is in heavy use, the chance that a fiber has remained on it from the crime scene is reduced to almost zero. Yet the permitted opinion does not account for this.

All in all, in either purpose or effect, the fourth sentence is problematic. It imports the notion that one can express a view on the probability of a random match – one would not expect to see one – absent any data from which such an opinion can be drawn.

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Gen Chem\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0070

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

"5. The examiner may report and/or state the weight or volume of a substance which was examined. The weight or volume reported will include an associated estimated measurement uncertainty and confidence level. In instances where both the weight and volume are reported for a substance, an associated estimated measurement uncertainty and confidence level is only necessary for one of the reported measurements (unless the weight and volume are being used in combination to calculate and report the density of the substance)."

Specifically, "The weight or volume reported will include an associated estimated measurement uncertainty and confidence level." The amount of a substance for qualitative analyses (identification only, not purity) shouldn't require a measurement uncertainty (MU). For qualitative analyses, the number reported is the amount of total material, NOT the amount of controlled substance, and therefore doesn't necessitate an MU. Furthermore, this MU is most greatly influenced by how much substance you can actually get out of the container- black tar heroin tends to be sticky and crystalline/powder substances tend to stick to containers via static. Until MU can account for getting substances out of containers (and how much material is left in the container), MUs for qualitative analyses don't have enough worth to make them required.

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0004

Footwear Tiretread\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0071

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Geoffrey Stewart Morrison

**Address:** Canada,

**Email:** (b) (6)

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## General Comment

The proposed uniform language is inconsistent with the consensus among the majority of those specializing in forensic inference and statistics (for example, those who attend and present at the International Conference on Forensic Inference and Statistics) that the likelihood ratio framework is the correct framework for the evaluation and the expression of strength of forensic evidence. This is also the position of the European Network of Forensic Science Institutes (Willis et al, 2015). The forensic practitioner must evaluate the probability of the evidence if the prosecution hypothesis were true versus the probability of the evidence if the alternative hypothesis were true. The forensic practitioner cannot logically express a posterior probability, and giving the probability of the evidence under only one of the hypotheses can be highly misleading. Vocabulary such as "identification", "inclusion", "exclusion", "elimination", "consistent with", "could have", etc. is highly problematic, as explained in Jackson (2009). I recommend that the current draft be rejected, and experts in forensic inference and statistics be invited to help write a new draft.

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0006

Gen Chem\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0072

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Geoffrey Stewart Morrison

**Address:** Canada,

**Email:** (b) (6)

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## General Comment

The proposed uniform language is inconsistent with the consensus among the majority of those specializing in forensic inference and statistics (for example, those who attend and present at the International Conference on Forensic Inference and Statistics) that the likelihood ratio framework is the correct framework for the evaluation and the expression of strength of forensic evidence. This is also the position of the European Network of Forensic Science Institutes (Willis et al, 2015). The forensic practitioner must evaluate the probability of the evidence if the prosecution hypothesis were true versus the probability of the evidence if the alternative hypothesis were true. The forensic practitioner cannot logically express a posterior probability, and giving the probability of the evidence under only one of the hypotheses can be highly misleading. Vocabulary such as "identification", "inclusion", "exclusion", "elimination", "consistent with", "could have", etc. is highly problematic, as explained in Jackson (2009). I recommend that the current draft be rejected, and experts in forensic inference and statistics be invited to help write a new draft.

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0014

Toxicology\_pULTR\_05252016

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Comment on FR Doc # N/A

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## Submitter Information

**Name:** Geoffrey Stewart Morrison

**Address:** Canada,

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## General Comment

The proposed uniform language is inconsistent with the consensus among the majority of those specializing in forensic inference and statistics (for example, those who attend and present at the International Conference on Forensic Inference and Statistics) that the likelihood ratio framework is the correct framework for the evaluation and the expression of strength of forensic evidence. This is also the position of the European Network of Forensic Science Institutes (Willis et al, 2015). The forensic practitioner must evaluate the probability of the evidence if the prosecution hypothesis were true versus the probability of the evidence if the alternative hypothesis were true. The forensic practitioner cannot logically express a posterior probability, and giving the probability of the evidence under only one of the hypotheses can be highly misleading. Vocabulary such as "identification", "inclusion", "exclusion", "elimination", "consistent with", "could have", etc. is highly problematic, as explained in Jackson (2009). I recommend that the current draft be rejected, and experts in forensic inference and statistics be invited to help write a new draft.

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0010

LatentPrint\_pULTR\_05252016

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Comment on FR Doc # N/A

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## Submitter Information

**Name:** Geoffrey Stewart Morrison

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## General Comment

The proposed uniform language is inconsistent with the consensus among the majority of those specializing in forensic inference and statistics (for example, those who attend and present at the International Conference on Forensic Inference and Statistics) that the likelihood ratio framework is the correct framework for the evaluation and the expression of strength of forensic evidence. This is also the position of the European Network of Forensic Science Institutes (Willis et al, 2015). The forensic practitioner must evaluate the probability of the evidence if the prosecution hypothesis were true versus the probability of the evidence if the alternative hypothesis were true. The forensic practitioner cannot logically express a posterior probability, and giving the probability of the evidence under only one of the hypotheses can be highly misleading. Vocabulary such as "identification", "inclusion", "exclusion", "elimination", "consistent with", "could have", etc. is highly problematic, as explained in Jackson (2009). I recommend that the current draft be rejected, and experts in forensic inference and statistics be invited to help write a new draft.

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0002

Fiber\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0075

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Geoffrey Stewart Morrison

**Address:** Canada,

**Email:** (b) (6)

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## General Comment

The proposed uniform language is inconsistent with the consensus among the majority of those specializing in forensic inference and statistics (for example, those who attend and present at the International Conference on Forensic Inference and Statistics) that the likelihood ratio framework is the correct framework for the evaluation and the expression of strength of forensic evidence. This is also the position of the European Network of Forensic Science Institutes (Willis et al, 2015). The forensic practitioner must evaluate the probability of the evidence if the prosecution hypothesis were true versus the probability of the evidence if the alternative hypothesis were true. The forensic practitioner cannot logically express a posterior probability, and giving the probability of the evidence under only one of the hypotheses can be highly misleading. Vocabulary such as "identification", "inclusion", "exclusion", "elimination", "consistent with", "could have", etc. is highly problematic, as explained in Jackson (2009). I recommend that the current draft be rejected, and experts in forensic inference and statistics be invited to help write a new draft.

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**Comment On:** DOJ-OLP-2016-0012-0008

Glass\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0076

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Geoffrey Stewart Morrison

**Address:** Canada,

**Email:** (b) (6)

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## General Comment

The proposed uniform language is inconsistent with the consensus among the majority of those specializing in forensic inference and statistics (for example, those who attend and present at the International Conference on Forensic Inference and Statistics) that the likelihood ratio framework is the correct framework for the evaluation and the expression of strength of forensic evidence. This is also the position of the European Network of Forensic Science Institutes (Willis et al, 2015). The forensic practitioner must evaluate the probability of the evidence if the prosecution hypothesis were true versus the probability of the evidence if the alternative hypothesis were true. The forensic practitioner cannot logically express a posterior probability, and giving the probability of the evidence under only one of the hypotheses can be highly misleading. Vocabulary such as "identification", "inclusion", "exclusion", "elimination", "consistent with", "could have", etc. is highly problematic, as explained in Jackson (2009). I recommend that the current draft be rejected, and experts in forensic inference and statistics be invited to help write a new draft.

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**Comment On:** DOJ-OLP-2016-0012-0012

Serology\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0077

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Geoffrey Stewart Morrison

**Address:** Canada,

**Email:** (b) (6)

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## General Comment

The proposed uniform language is inconsistent with the consensus among the majority of those specializing in forensic inference and statistics (for example, those who attend and present at the International Conference on Forensic Inference and Statistics) that the likelihood ratio framework is the correct framework for the evaluation and the expression of strength of forensic evidence. This is also the position of the European Network of Forensic Science Institutes (Willis et al, 2015). The forensic practitioner must evaluate the probability of the evidence if the prosecution hypothesis were true versus the probability of the evidence if the alternative hypothesis were true. The forensic practitioner cannot logically express a posterior probability, and giving the probability of the evidence under only one of the hypotheses can be highly misleading. Vocabulary such as "identification", "inclusion", "exclusion", "elimination", "consistent with", "could have", etc. is highly problematic, as explained in Jackson (2009). I recommend that the current draft be rejected, and experts in forensic inference and statistics be invited to help write a new draft.

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**Comment On:** DOJ-OLP-2016-0012-0009

Glass\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0078

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Douglas DeGaetano

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## General Comment

Pertaining to the proposed uniform language for testimony and reports for the forensic glass discipline. This document does not give a definition for glass "fragments" or glass "particles". If by "fragments" you are referring to glass that has both manufactured surfaces, like a "dice" then the document as written would only apply to a very small number of actual case scenarios. Typically, glass recovered from a suspect's clothing is in the form of minute "particles" which do not exhibit both manufactured surfaces. With these types of particles it is not possible to measure the full range of physical characteristics and/or "chemical" (elemental) composition. On particles, the refractive index is what is typically measured and compared to the known source.

In the current document (paragraphs 2 and 3) associated conclusions are based on glass "fragments". The only conclusion allowed for glass particles is in paragraph 4 which states that the possible source of broken glass cannot be determined. This is contrary to current case scenarios where recovered glass particles that have a refractive index consistent with the known source would fall under the conclusion described in paragraph 3 of the current document.

A suggested correction would be to indicate "fragments/particles" throughout this document.

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**Comment On:** DOJ-OLP-2016-0012-0001

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Document:** DOJ-OLP-2016-0012-0079

Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

As a member of the Statistics Task Group I am pleased to see progress in the discussion of quantified uncertainty in many of the proposed revised standards. But I have a few concerns.

1. Judges are the gatekeepers in permitting expert testimony, but the Daubert standard specifically directs them to weigh five tests, and the implication is that all of the tests should be satisfied. These tests are:

- a. Is the theory or technique falsifiable, refutable and/or testable?
- b. Has the methodology been subjected to peer review and publication?
- c. What is the known or potential error rate?
- d. Are there standards and controls (where appropriate)?
- e. Is the theory or technique generally accepted by the scientific community?

The proposed standards address, to some extent, conditions a,b,d,e. Condition c (error rates) is less satisfactory. And c is important---it makes a big difference if the expert's testimony has one chance in five of being wrong, or one chance in ten thousand.

I recognize that many forensic scientists feel that it is difficult to determine the chance of incorrectly declaring a match and the chance of incorrectly overlooking a match, but I believe that this difficulty has been overstated. People seem to get bogged down in debates over likelihood ratio tests and Bayesian priors, but much can be gained from simpler methods. For example, most training protocols involve proficiency testing. If these protocols were slightly modified to ensure their representativeness of actual case work (i.e., no easier nor more

difficult, on average, than actual cases) and to enable double-blind testing in realistic situations, then it is possible to estimate false positives and false negative error rates. The fact that every situation is unique does not imply that one cannot calculate generalizable error rates. (Richard Feynman, in late stage cancer, asked his physician what was the chance that he had another six months. The doctor said it was impossible to answer, because every patient was unique. Feynman replied, correctly, that it was still completely possible to answer the question.)

2. In the discussion of "Absolute or Numerical Certainty," in the proposed latent print standard, I am concerned that the analyst is prohibited from providing a numerically calculated statement of uncertainty. For example, if an expert examiner were presented with 20 pairs of prints (some from same, some from different sources), and made the correct call for 19 of them and an incorrect call for one of them, then the analyst should be allowed to report this as a relevant error rate. (This assumes that the 20 matching tests are comparable in quality and level of difficulty to the case for which testimony is offered.)

3. In the proposed glass standard, I applaud the second part of the "Statements Approved for Use in Forensic Glass Comparison Testimony" as it specifically allows conclusions to include probabilities based on appropriate databases or documented frequencies.

4. In the proposed standard on footwear and tire impressions, I am concerned that the examiner may not state a numerical value or percentage regarding the error rate. As noted above for the latent print standard, one should be allowed to report (at the very least) the results of double blind proficiency tests for comparable cases. Similar concerns arise in the textile fiber standard.

5. The serology standard says that "the analytical processes and procedures used to support serology testing do not have a calculable error rate due to the unpredictability of human error." This is a serious misunderstanding. We have excellent information on the probability that humans will make certain kinds of errors, and there is no noological barrier to estimating those error rates in this context.

6. I applaud the standard on general chemistry that indicates the importance of an appropriate sampling plan in order to make inferences about inhomogenous materials.

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**Comment On:** DOJ-OLP-2016-0012-0014

Toxicology\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0080

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

Statements not approved...

2. An examiner may not report or state an opinion that suggests his/her interpretation of the effects of a drug or poison can be specified to the individual whose sample was tested.

Just for clarification, would an examiner be able to speak to what is generally known about how concentrations impact/ impair someone, without specifically identifying how any ONE individual would respond to a dose?

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Document:** DOJ-OLP-2016-0012-0081

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Christine Moore

**Address:**

(b) (6)

**Email:** (b) (6)

**Phone:** (b) (6)

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## General Comment

See attached file(s)

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## Attachments

Proposed Uniform Language Discipline Reviewed

July 7, 2016

Proposed Uniform Language Discipline Reviewed: **Forensic Toxicology**  
Reviewer Name: **Christine Moore, PhD, DSc, DABCC**  
Relevant Professional Experience: **Past President: Society of Hair Testing**

As a former director of a hair testing laboratory, Past President of the Society of Forensic Toxicologists, Past President of the Society of Hair Testing, Drug Testing Advisory Board (DTAB) member and a Committee Chair on the current SAMHSA Hair Testing group I feel I am qualified to comment on statements #8, #10 in the "approved" list and statement #3 in the "not approved" list. None of these statements (#8 and #10 approved; #3 not approved) are supported by scientific research and they do not reflect the consensus in the scientific community.

*Statement #8: The examiner may report and/or state the results of segmental analyses of hair samples and interpret those findings based on an average growth rate of 1 cm/month provided he/she acknowledges variation in inter-individual growth rates and assumes proper specimen collection.*

**Comment: Drugs enter the hair through various mechanisms including blood, sweat, and sebum as well as through environmental contamination. Segmental analysis can be problematic for drugs which are smoked; drugs are deposited on the head and their detection in a specific segment has no correlation to the time of ingestion. It is possible that drugs which are orally ingested can be followed along the hair shaft fairly consistently, but this does not apply to all drugs. The statement is far too simplistic; it implies that all drugs are incorporated in the same way and all travel along a hair shaft in a linear manner with no potential differentiation caused by hair pigmentation, treatments (dyeing, bleaching), frequency of washing, age, or other factors which influence drug incorporation into hair. The reliability of segmental analysis is not widely accepted by hair analysts and this should not be an approved statement.**

*Statement #10: The examiner may report and/or state that hair findings indicate the ingestion of a drug or poison if validated wash procedures have been performed that can differentiate between exposure and ingestion and/or if a metabolite that is uniquely associated with ingestion has been identified in the sample and*

*Statement #3: An examiner may not report or state an opinion that a drug or poison finding in hair is proof of ingestion of the drug or poison unless a metabolite that is unique to ingestion is also identified and/or validated wash procedures have been performed that can differentiate between exposure and ingestion.*

**Comment: The use of wash procedures to differentiate exposure from ingestion is still controversial; there are no validated wash procedures which have been generally accepted by the scientific community. The published literature (on both sides of this argument) is almost exclusively concerned with cocaine – there is minimal if any literature to support this concept for any other drug. To date the only metabolite which falls under the "unique metabolite" scenario is THC-COOH (metabolite of cannabis); metabolites of other drugs can be formed outside the body so are not uniquely associated with ingestion. The statement(s) are largely inaccurate, not supported by any scientific data and in the current state of the science could only possibly be applied reliably to the detection of THC-COOH.**

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0015

Toxicology\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0082

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

Our Toxicology Technical Leaders' opinions on this document are largely favorable. The proposed language for use in laboratory reports and expert witness testimony reflects the language used by the MN BCA laboratory toxicology section. Our comments are suggestions for clarification of the terms "toxicology evidence" and "drug":

The scope includes the forensic examination of toxicology evidence. It is assumed that this document would not apply to testing of breath samples for alcohol, however, this is not clear. Our Laboratory's accreditation in the field of Forensic Science Breath Alcohol Calibration is for the discipline of toxicology and the category of calibration of breath alcohol measuring instruments. It would not be unreasonable to construe a breath sample as toxicology evidence. This could be an issue in court because point 9 in "Statements Approved for Toxicology Testimony and/or Laboratory Reports" states that retrograde extrapolation can be reported or stated for ethanol concentration in blood. It is also scientifically valid (and not uncommon) to state an extrapolated ethanol concentration from a breath alcohol measurement.

Point 4 in "Statements Not Approved for Toxicology Testimony and/or Laboratory Reports" states that an examiner may not report or state an opinion that an individual was impaired based on a drug concentration in urine. We agree with this statement within the context of drug testing, however, based on data published in peer reviewed literature a scientist may testify that a urine alcohol level would correlate to a blood alcohol level that would be sufficiently high to indicate some degree of impairment at or prior to the time of the urine sample collection. Does "drug" include alcohol?



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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0015

Toxicology\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0083

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

The Theory of Forensic Toxicology Examinations section includes the statement that "in cases of suspected driving under the influence of alcohol, breath may be collected and analyzed for the presence of ethanol". This statement could be construed to include breath samples within the scope of toxicology evidence (as discussed above) with negative ramifications for the acceptance of retrograde extrapolation of breath alcohol measurements.

Whether alcohol is included with drugs and other toxic substances or poisons is not explicitly stated in this document. If the commentary regarding confirmation techniques applies to alcohol testing in blood and urine then it conflicts with the procedures of the BCA Laboratory toxicology section. There is a multitude of data published in peer reviewed literature that supports the use of GC without mass spectrometry to confirm the identity and quantitation of ethanol and volatiles in toxicology samples. The SOFT / AAFS Forensic Toxicology Laboratory Guidelines and the ABFT Forensic Toxicology Accreditation Manual include the following statements. The highlighted portions are consistent with the procedure used in the BCA Laboratory toxicology section:

SOFT/AAFS: For ethanol, although false positives are unlikely, confirmation using a second analytical system is encouraged. One approach is to confirm detection of ethanol by GC using an enzymatic assay. Alternatively, confirmation using a second GC column is acceptable IF the second results in significant changes in retention time AND change in elution order of at least some of the common volatiles (e.g. ethanol, isopropanol, acetone). The second analysis should be performed on a separate aliquot of the specimen, or an alternate specimen from the same case.

ABFT: Nonetheless, use of a second confirmatory technique is encouraged for all analytes, including ethanol (e.g., GC dual-column analysis, enzymatic, or colorimetric) and carbon monoxide (e.g., visible spectrophotometry, palladium chloride or GC).

If only a single specimen (e.g. blood) is available on a specific case, a separate repeat analysis must be performed for confirmation of a positive result.

Effective January 1, 2014 ethanol must be determined using a 2-column GC method or alternate method of

equivalent or greater forensic strength.

Note: SWGTOX has not established standards for analytical procedures so the SOFT/AAFS guidelines and the ABFT Accreditation requirements are referenced herein to provide context of the views of the Forensic Toxicology community.

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Comment on FR Doc # N/A

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## Submitter Information

**Name:** Thomas Holland

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## General Comment

The standardization of report and testimony language is a major step forward for the forensic science profession.

It is encouraging that many of the forensic science fields are trending away from the use of statistical (often pseudo-statistical) weighting of observations and conclusions. Too often in the past, examiners many of whom had little training in, and even less understanding of, statistics employed statements of probability that had no grounding in the science.

Unfortunately, old habits die hard and several of the proposed language guidelines (e.g., Footwear and Tire Impression) have eliminated overt statements of probability only to substitute statements that carry an inferred probability.

For example, the options available to a Footwear and Tire Impression analyst are:

1. Identification
2. Probably Made
3. Could Have Made
4. Could Not be Determined
5. Indications Did Not Make
6. Elimination
7. Unsuitable

Closer examination, however, uncovers the implied probability.

**Identification:** The accompanying explanation states that "Identification" is one in which the examiner "would not expect to find [the combination of features] . . . in another source," but that "exclusion of all others can never be empirically proven." This would imply a probability in excess of 99% but less than 100%. (or some similar number, such as >99.5% or 99.9%).

**Probably Made:** The accompanying explanation states that "Probably Made" is one in which "it is unlikely that another shoe/tire is the source," but where an "identification" cannot be made. Theoretically, this would imply a

probability in excess of 50% but less than 99%. Even assuming that the intent is to weight it higher, for example >60% but <99%, the problem remains the same: a de facto weight has been attached.

Could Have Made: The accompanying explanation states that "Could Have Made" is one in which there are similar class characteristics. This invites the inference of a probability somewhere in a grey zone between (for example) 45%-55%, or perhaps 40%-60%.

Could Not Be Determined: The statement that the examiner could not determine whether a match exists or not is functionally the same as the last category: Unsuitable.

Indications Did Not Make: The accompanying explanation states that "Indications Did Not Make" is the antimere of "Probably Made." Theoretically, this would imply a probability somewhere lower than 50%, or conservatively, <40% but >1%.

Elimination: The accompanying explanation states that "Elimination" is the antimere of "Identification." This would imply a probability less than 1% (or perhaps 0.5% or 0.9%).

Moving away from probability weighting is a positive development. The problem is that when too many categories of observations are developed, the implied probabilities begin to creep back into the process through the backdoor.

Perhaps it isn't surprising that Latent prints, which has taken its share of criticism on the issue, has adopted a simplified reporting nomenclature: Identification, Inconclusive, and Exclusion.

Clearly, any categorization involves implied weighting. The more categories that exist, the more the mind divides the percentage pie and assigns weight to those categories. As a result, the more slices to the pie, the more important the distinctions between the slices become, and to resolve those distinctions, the mind infers weight. By limiting the categories, such as to three (as proposed for Latent Prints) this problem is reduced.

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## Submitter Information

**Name:** Simon Cole

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## General Comment

See attached file(s)

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## Attachments

PublicCommentCole4

**Proposed Uniform Language Discipline Reviewed:** Forensic Latent Print  
**Reviewer Name:** Simon A. Cole  
**Reviewer Organization:** University of California, Irvine

The Reviewer is a Member, Human Factors Subcommittee, National Commission on Forensic Science. The comments are the reviewer's own and do not necessarily represent the views of the Human Factors Subcommittee.

### **Statements Approved for Use in Laboratory Report and Expert Witness Testimony**

#### 1. Identification

The Statement Approved for Use is not supported by scientific research and is not stated clearly.

The Statement Approved for Use is not stated clearly.

The Statement Approved for Use consists of two sentences containing four separate assertions, some which appear to contradict one another, and whose relationship to one another is not clear.

It is not clear whether the Statement Approved for Use is intended to be a non-probabilistic claim that the source of friction ridge print can be known with certainty, or some other type of statement. The very fact that ambiguity exists on this point means that the Statement Approved for Use is not stated clearly. If one considers the first half of the first sentence of the Statement Approved for Use in isolation—

The examiner may state or imply that an *identification* is the determination that two friction ridge prints originated from the same source . . .

—then it certainly does appear to be a non-probabilistic claim that the source of friction ridge print can be known with certainty. However, while the purpose of the remainder of the text of the Statement Approved for Use is not obvious, it seems possible that it is intended to somehow weaken the strength of the claim made in the first half of first sentence. If so, it does not do so clearly.

The Statement Approved for Use is not supported by scientific research.

The Statement Approved for Use appears to be a non-probabilistic claim that the source of friction ridge print can be known with certainty. This is made clearest if one considers the first half of the first sentence of the Statement Approved for Use in isolation:

- a) The examiner may state or imply that an *identification* is the determination that two friction ridge prints originated from the same source . . .

If the Statement Approved for Use is indeed a non-probabilistic claim that the source of friction ridge print can be known with certainty, then it is not supported by scientific research. Numerous authorities agree that such statements are excessively strong, unnecessary, and unsupported (see, e.g., Kwan, 1977; Robertson, 1990; Stoney, 1991: 198; Risinger and Saks, 1996; Starrs, 1999; Champod and Evett, 2001: 113; Inman and Rudin, 2001; Thornton and Peterson, 2002; Cole, 2004; Broeders, 2006; Meuwly, 2006; Biedermann et al., 2008; Champod, 2008; Mnookin, 2008; Saks and Koehler, 2008; Cole, 2009; Koehler and Saks, 2010; Margot, 2011: 95; Page et al., 2011; Amorim, 2012; Biedermann et al., 2013; Houck, 2013; Kaye, 2013; Cole, 2014).

We are next faced with the question of whether the Statement Approved for Use is, in fact, intended to be something other than a non-probabilistic claim that the source of friction ridge print can be known with certainty. This is suggested by the fact that this non-probabilistic claim is then followed by three additional assertions:

- b) . . . because there is sufficient quality and quantity of corresponding information such that the examiner would not expect to see that same arrangement of features repeated in another source.
- c) While an *identification* to the absolute exclusion of all others is not supported by research, . . .
- d) . . . studies have shown that as more reliable features are found in agreement, it becomes less likely to find that same arrangement of features in a print from another source.

Do any or all of these additional assertions somehow transform the non-probabilistic claim that the source of friction ridge print can be known with certainty into a different claim that is supported by scientific research? No. We can examine each of these additional assertions in turn.

- b) . . . because there is sufficient quality and quantity of corresponding information such that the examiner would not expect to see that same arrangement of features repeated in another source.

If this statement is taken seriously, then it is claiming that an identification is made when a latent print examiner subjectively believes that they are in a position to ascertain that the amount of corresponding friction ridge features that they perceive always derive from same-source pairings and never derive from different-source pairings. In biometric terms, this is a claim that the receiver operating characteristic (ROC) of the system contains no overlap between same-source and different-source comparisons. In biometrics, such a system is considered unachievable. There is no scientific support for the claim that any method of latent print analysis, let alone the

method practiced by DOJ agencies, enables complete separation of same-source and different-source pairings.

- c) While an *identification* to the absolute exclusion of all others is not supported by research, . . .

The inclusion of this assertion after assertion (a) implies that an “an *identification* to the absolute exclusion of all others,” is somehow different from “the determination that two friction ridge prints originated from the same source.” However, this is false and not supported by scientific research (Cole, 2014). There is no logical, scientific, or linguistic difference between the statements:

- Two friction ridge prints originated from the same source; and
- Two friction ridge prints originated from the same source to the absolute exclusion of all others.

If an expert is testifying that two friction ridge prints originated from the same source, then “all others” have necessarily been eliminated as sources of both friction ridge prints.

If the DOJ believes there is a logical difference between these statements, neither the Proposed Uniform Language nor the Supporting Documentation explains it.

It is also implausible to believe that a fact-finder or other consumer of the evidence will perceive a meaningful difference between the two statements. If the DOJ has a reason to believe that fact-finders will perceive these statements to be different, then that reason is not explained in either the Proposed Statement or the Supporting Documentation. Thus, the statement is at odds with NIST/NIJ Report Recommendation 3.7, which says “latent print examiners should not report or testify, directly or by implication, to a source attribution to the exclusion of all others in the world” (NIST, 2012: 72).

- d) . . . studies have shown that as more reliable features are found in agreement, it becomes less likely to find that same arrangement of features in a print from another source.

This is a reasonable assertion. It is unclear, however, what relevance it has to the first clause of the sentence in which it is contained, assertion (c), or in what way it qualifies that assertion. It is true that studies have supported the intuition that the greater the number of friction ridge features in a particular arrangements the rarer a similar arrangement of friction ridge feature in the population of friction ridges. But this finding does not support “a determination that two friction ridge impressions originated from the same source.”

This general finding—that more features are more discriminating—tells us nothing about *how* discriminating friction ridge features are. The finding would be equally



true of features that are not very discriminating and of features that are very discriminating.

The general finding that arrangements of friction ridge features become rarer as the number of friction ridges increases does not tell us when the rarity of a particular arrangement of friction ridge features has reached the (mythical) point at which “the examiner would not expect to see that same arrangement of features repeated in another source.”

Finally, this assertion’s implication that there is, in fact, some probability that the same arrangement of features may be found in more than one source contradicts assertion (a)’s claim that an examiner can make a “determination that two friction ridge prints originated from the same source.”

### The Supporting Documentation

The Supporting Documentation claims that the Statement Approved for Use is supported by:

- The persistence and uniqueness of friction ridge skin
- Population studies of the frequency of features
- The aforementioned finding about rarity increasing as the number of friction ridges increases

These studies cannot support “a determination that two friction ridge impressions originated from the same source” unless one actually used these studies to try to estimate the rarity of the arrangement of features. There is no discussion in the Supporting Documentation of these studies actually being used in this manner.

### Conclusion

The statement should be revised so as not to be a claim of absolute certainty. The best way to achieve this would be make clear that there are two hypotheses—that two friction ridge prints originated from the same source and that two friction ridge prints originated from difference source—and both have a non-zero probability.

In addition, I would suggest that the label “Identification” needs to be discarded. The term “Identification” has historically been used, both in forensic science and in common parlance, to connote non-probabilistic claims of absolute certainty, as this proposed Statement Approved for Use itself demonstrates. The Proposed Uniform Language cannot plausibly change the meaning of this word for the public, or even the latent print discipline, by fiat.

## 2. Inconclusive

The Statement Approved for Use is stated clearly and accurately reflects consensus language. It is not clear what it would mean for this statement to be supported by scientific research.

The DOJ should consider adding further specificity to Inconclusive statements, along the lines suggested by SWGFAST (2013). The differences between the three different types of Inconclusive statement discussed by SWGFAST—(1) Lack of Comparable Areas; (2) Lack of Sufficiency for Individualization; and (3) Lack of Sufficiency for Exclusion—may have consequences to litigants, and, therefore, the specific type of Inconclusive statement should be made clear in DOJ testimony and reports.

## 3. Exclusion

The Statement Approved for Use is supported by scientific research, accurately reflects consensus language, and is stated clearly.

### **Statements Not Approved for Use in Laboratory Reports and Expert Witness Testimony**

#### 1. Exclusion of All Other Sources

The statement is correct that a testimonial claim “that two friction ridge prints originated from the same source to the exclusion of all other sources” is not supported by scientific research. However, given that the Proposed Uniform Language includes “the determination that two friction ridge prints originated from the same source” as a Statement Approved for Use, the net effect of the Proposed Uniform Language is to suggest that non-probabilistic claims that two friction ridge prints originate from the same source are supported by scientific research as long as the words “to the exclusion of all other sources” are not uttered. This is a false claim which is not supported by scientific research. There is no logical, scientific, or linguistic difference between the statements:

- Two friction ridge prints originated from the same source; and
- Two friction ridge prints originated from the same source to the absolute exclusion of all others

If an expert is testifying that two friction ridge prints originated from the same source, then “all others” have necessarily been eliminated as sources of both friction ridge prints.

If there is a logical difference between the two statements above, neither the Proposed Uniform Language nor the Supporting Documentation explains it. If the DOJ believes there is a logical difference between these two statements, it should clearly explain the difference and the basis for that difference.

The Statement Not Approved for Use should be extended to include any non-probabilistic claim that the source of friction ridge print can be known with certainty.

### The Supporting Documentation

The Supporting Documentation contains a misstatement that will not help clarify the Proposed Uniform Language for Testimony and Reports for the Forensic Latent Print Discipline. Galton's statistical model and other early statistical models did not support testimony "that individuals can identify latent prints to the exclusion of all others." As the Supporting Documentation itself notes (fn. 42), Galton concluded that the probability of duplicate finger-size areas of friction ridge skin existing was around 1 in 4. More importantly, none of these statistical models told us anything about the ability of forensic latent print examiners to determine the source of friction ridge prints. This revisionist history does not help clarify the Proposed Uniform Language for Testimony and Reports for the Forensic Latent Print Discipline.

#### 2. Absolute or Numerical Certainty

The permanent non-approval of statements of absolute certainty is supported by scientific research.

The temporary non-approval of numerically calculated degrees of certainty (or, perhaps more precisely, degrees of uncertainty) is reasonable given the paucity of data, studies, and statistical models. However, it should be noted that a numerically calculated statement of certainty should be the goal toward which the forensic latent print discipline should be seeking to progress.

### The Supporting Documentation

The Supporting Documentation contains a reference (fn. 47) to a document, the FBI Laboratory Latent Print Operations Manual Examining Friction Ridge Prints, that is not available to the public. If this document is to be relied upon as supporting documentation, it should be made available to the public.

The Supporting Documentation contains misstatements that will not help clarify the Proposed Uniform Language for Testimony and Reports for the Forensic Latent Print Discipline. First, if it is true that examiners throughout the DOJ, not just at the FBI, "document the analysis of the latent impression before conducting an analysis of the known impression," this is an excellent practice. The practice of documentation does not, however, support any statement of certainty, and the Supporting Documentation seems to imply that it does.

Second, the Supporting Documentation’s statement that “conclusions . . . emanate from their [examiners’] skills, knowledge, experience, education, and training” may be read as a reversion to the now-discredited practice of claiming that forensic conclusions may be based on nothing more than the training and experience of the expert witness.

Third, the Supporting Documentation offers a misleading interpretation of the “published reliability studies” by stating that they “demonstrate that qualified examiners accurately assess the friction ridge detail to produce reliable conclusions.” Qualified examiners reached both accurate and inaccurate conclusions in these studies. Therefore, the studies may as easily be interpreted as demonstrating that qualified examiners inaccurately assess friction ridge detail to produce inaccurate conclusions. A meaningful summary of the studies would not focus on the fact that some accurate (and inaccurate) results were reached, but rather on the relative frequency of both results.

### 3. Zero Error Rate

The Proposed Uniform Language correctly states that statements and implications of zero error rate and infallibility are not supported by scientific research.

#### The Supporting Documentation

The Supporting Documentation contains a minor contradiction that will not help clarify the Proposed Uniform Language for Testimony and Reports for the Forensic Latent Print Discipline. The Supporting Documentation correctly states that “the attempt . . . to separate the methodology error from practitioner error” is “now known to be inappropriate.” However, three paragraphs later, the Supporting Documentation engages in precisely this inappropriate practice by stating “because of the possibility of practitioner error, it is no longer permissible to state that the comparison process has a zero error rate.”

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LatentPrint\_pULTR\_05252016

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Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

The Department of Justice should be commended for their efforts to offer uniform language for testimony and reports in an effort to standardize this across all Department laboratories and allow the opportunity to provide responses through public comment. I am very appreciative to have the opportunity to offer input. As a forensic practitioner, I have one major concern:

Under the proposed uniform language for "identification", the Department states "[t]he examiner may state or imply that an identification is the determination that two friction ridge impressions originated from the same source . . ."; however, under the section "Statements Not Approved" the Department states "[a]n examiner may not state or imply that two friction ridge prints originated from the same source . . .". Having the same language appear under both approved and not approved sections creates a conundrum for the examiner while further creating confusion to the fact-finder and reader of the reports. Consistent with several published criticisms, it is recommended that the DoJ consider alternative language to express the highest level of association between an unknown impression and a known source. Accordingly, perhaps an alternative suggestion may be to eliminate the statement ". . . two friction ridge impressions originated from the same source . . ." and instead simply state: "The examiner may state or imply that there is sufficient quality and quantity of corresponding information such that the examiner would not expect to see that same arrangement of features repeated in another source."

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Footwear Tiretread\_pULTR\_05252016

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Comment on FR Doc # N/A

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## Submitter Information

**Name:** Ron Mueller

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## General Comment

The International Association for Identification (IAI) Footwear Subcommittee has reviewed the Department of Justice (DOJ) "PROPOSED UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS FOR THE FORENSIC FOOTWEAR AND TIRE IMPRESSION DISCIPLINE" and has concluded that the intent of the document is to give guidance on how DOJ personnel are to write reports and testify in a court of law, not to abandon the established Scientific Working Group for Footwear and Tire Track Evidence (SWGTTREAD) standards of conclusions or even give guidance to other practitioners outside of DOJ. While the document does not intend to change established conclusion scales previously published by SWGTTREAD, it also did not mention the conclusion scales. This subcommittee recommends that the conclusion scales (levels of association) be included in the document showing the level of association and then the accepted terminology to utilize in reports and court testimony.



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**Comment On:** DOJ-OLP-2016-0012-0002

Fiber\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0088

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

The following comments are for the Proposed language for forensic textile fiber discipline:

- On page 1 under Manufactured Fibers, the following statement is weak: "The examiner may further state or imply that the manufactured fiber is consistent with a particular sub-group ..." Using appropriate techniques, the examiner should be able to state imply the particular sub-group.
- It is suggested if stating "optical properties" that additional explanatory information is provided.
- Additional information should be included about the significance of the various types of fibers. Again, red polyester fibers have more significance than blue cotton fibers.
- On page 2 under Exclusion, the following statement is weak : "...is not consistent with originating from the source of the known sample." A more definitive exclusion can be reached such as "The compared items exhibit differences in observed and/or measured properties that demonstrate they did not originate from the same source".

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Fiber\_Supporting Documentation\_05252016

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

While most of the overall information in the supporting documentation for the language for the forensic textile fiber discipline is correct, there are some things that should either be clarified or corrected including:

- Clarification of the significance of natural fibers versus synthetic fibers. A red polyester fiber has a different significance than a blue cotton fiber.
- Some of the listed characteristics for natural fibers are typically not compared as there is such variation in natural fibers including shape and diameter.
- Typically a PLM is used prior to a comparison microscope as the fiber type is determined by PLM before comparing fibers.

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

- Most of the language in this document directly aligns with the current practices and report wording used in the MN BCA Trace Evidence Section regarding the forensic examination of footwear and tire impression analysis with the following exception:

- o The BCA Trace Evidence Section as well as the SWGTREAD standard for conclusions includes a 'limited association' or 'limited association of class characteristics' conclusion and this document does not. This conclusion allows for differentiation between an association of class characteristics without limitations and one that does have limitations. In my opinion, it is important to have this classification for instances where there are limitations to the examination such as lack of scale, lack of detail, the improper use of photographic techniques, etc.

- Additionally, there are some wording that is not necessarily that clear and could be misinterpreted.

- o First, this document does not cover the entire breadth of forensic footwear and tire track impression examination since it does not include possible make and model determination for unknown impressions. Although implied, clarification should be added which clarifies that document is limited to comparative examinations.

- o In the 'Probably Made' conclusion the following wording is not particularly clear: 'prevent effecting an identification'. Please consider revising this wording.

- o The statistical weight section states: 'The examiner may not state a numerical value or probability associated with his/her opinion.' This could be misinterpreted to mean that reports may not contain any numbers e.g. Four of the five questioned impressions... Consider revising to 'statistical value' or like wording.

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0008

Glass\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0091

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

- Most of the language in this document directly aligns with the current practices and report wording used in the MN BCA Trace Evidence Section with the following exceptions:

o We have one additional association category that states it is highly likely the pieces came from a common source.

Trace Evidence: Type II Association: Association with distinct characteristics

An association in which items correspond in all measured physical, chemical properties, and/or microscopic characteristics, and share distinctive characteristic(s) that would not be expected to be found in the population of this evidence type. The distinctive characteristics were not sufficient for a Type I Association.

This conclusion would provide additional distinction when distinctive characteristics are observed in addition to correspondence of class characteristics.

o What have one additional non-associative category where a glass pieces exhibit differences but these differences may not be sufficient for a complete elimination.

Trace Evidence: Dissimilar:

The questioned item exhibits some dissimilarities to the known item but lacks sufficient quality or detail for an absolute elimination to be made.

This conclusion type may be appropriate where the refractive indexes differ but only very slightly and chemical analysis is not available.

o Additionally, this document allows, 'conclusions may include probabilities based on appropriate databases or documented frequencies', however, does not address particular requirements for these reported conclusions.

Although this may be outside the scope of this document and addressed in particular agency SOPs, specific guidelines should be considered.

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Toxicology\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0092

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

**Organization:** Westchester County, NY

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## General Comment

Please separate urine and hair in the discussions.

Statements NOT Approved:

1 Post-mortem and dose: Many drugs exhibit postmortem redistribution. Using the appropriate formulas, knowing the circumstances of the case, analyzing both femoral blood, peripheral blood and in appropriate cases gastric contents, a discussion should be allowed that includes the range of possible drug amounts that could have been ingested.

4. When discussing a urine drug concentration, it is important to have all of the facts regarding an incident if possible. You should be able to comment if the level indicates older use, abuse or recent use. With high urine drug levels, (example high cocaine levels in the urine) and the fact that a person trying to say they used the drug weeks ago or days ago, along with observations or reports, you should be able to discuss the drug and the levels. The Workplace drug testing program has done extensive research to determine what levels are appropriate for the certified labs and drug testing. It is important to be able to discuss what those levels could indicate.

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**Comment On:** DOJ-OLP-2016-0012-0013

Serology\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0093

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

This document states 'The process of confirming that a body fluid is present on evidence can either be done using a single identifying test or by coupling multiple screening tests. It is a scientifically acceptable practice to use two screening techniques that are based on different chemical principles to confirm the presence of a body fluid if the limitations of one test are not subject to the same limitations as the other.' This goes against the general practice of the forensic serology community. There is also no scientific literature that supports this claim in the serology discipline. Please note the references cited here are from SOFT/AAFS Forensic Toxicology Laboratory Guidelines. Coupling multiple screening tests may strongly indicate the presence of a body fluid but does not confirm its presence to the exclusion of all others.

The process of coupling multiple screening tests is used in analytical forensic disciplines (e.g. Drug Chemistry). However, the scientific community disagrees and I believe there some kind of discussion regarding this subject at the OSAC level.

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**Document:** DOJ-OLP-2016-0012-0094

Comment on FR Doc # N/A

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## Submitter Information

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**Organization:** ENFSI MI Monopoly Group

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## General Comment

We are thankful for the opportunity to comment this text.

We have three main remarks that we would like to bring to the attention of the authors:

1. Having several disparate guidelines reinforces the problem that forensic science works in silos. Forensic science is one science and therefore should report using the same principles and general language whatever the discipline. Having several different guidelines will also bring confusion to the judiciary. We would welcome further attempts at bringing different disciplines together to agree on a common guideline, vocabulary and scales of support, which should enable clearer and more consistent understanding by the judiciary.
2. The 'building blocks' for reporting results in forensic science, as described in the NRC report, are missing (National Research Council Strengthening Forensic Science in the United States: A Path Forward, 2009. The National Academies Press, Washington D.C., 2009), as are references to the European literature.
3. The approach adopted regarding evaluation and reporting ought to follow the following principles: balance, logic, robustness and transparency (see <http://www.enfsi.eu/news/enfsi-guideline-evaluative-reporting-forensic-science>). This is unfortunately not the case here, as, for example, the document appears to prohibit the use of any Bayesian approach in the interpretation of findings for some disciplines, but not others.

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**Comment On:** DOJ-OLP-2016-0012-0009

Glass\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0095

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

There are policy recommendations discussing ICP and refractive index methods, but not a policy consideration that discusses the use of micro-XRF. Although it is mentioned that "other methods" were evaluated using the research of Trejos et al. it would be beneficial to reference that micro-XRF is an acceptable method for the evaluation of glass evidence in light of the fact that this is the instrumentation most readily available to and utilized by the majority of forensic labs performing glass analysis. The ASTM ASTM: E2926-13 Standard Test Method for Forensic Comparison of Glass Using Micro X-ray Fluorescence (-XRF) Spectrometry is current proposed for consideration as an OSAC standard. Analysis of glass by micro-XRF can successfully provide scientific support to the proposed testimony and report language.



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Toxicology\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0096

Comment on FR Doc # N/A

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## Submitter Information

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## General Comment

I am an attorney with forensic science training who works as the Forensic Resource Counsel for the North Carolina Office of Indigent Defense Services. I have comments on the following provisions of this document:

3. The examiner may report and/or state the pharmacokinetic and pharmacodynamic effects of drugs and poisons based on data published in peer reviewed literature or other authoritative sources.
4. The examiner may report and/or state his/her opinion as to the effects of drugs or poisons on the average human. This opinion should be based on the facts of the case, medical information about the individual that the specimens were collected from (e.g., weight, height, disease state, age), current published studies, and/or the examiner's training in the fields of pharmacology, physiology, pathology, clinical chemistry, and/or toxicology.
6. The examiner may report and/or state that a reported blood concentration is within the therapeutic range, toxic range, or consistent with reported fatal concentrations, provided the statement is based on data published in peer reviewed literature or other authoritative sources.
9. The examiner may report and/or state an extrapolated ethanol concentration in a blood sample collected from a living person.

Re: # 3, 4, 6: Many examiners are technicians who are trained to perform forensic toxicology analysis using specific instruments in their labs and are qualified to use these instruments and report the results of those tests, but they may not be trained in the fields of pharmacology, physiology, pathology, or medicine and therefore are not qualified to opine on the impairing effects of the substances that they have identified in forensic samples. If

the witness does not have training in pharmacology, physiology, pathology or medicine, they should not provide expert testimony in those fields, even if they have read articles in peer reviewed journals.

Re: #9: Testimony regarding retrograde extrapolation of ethanol concentration should not be approved wholesale. It simply is not applicable uniformly across all individuals and in all situations. Many applications of this practice have been questioned in peer reviewed journals. Examiners should be given additional guidance about under what conditions this type of calculation should be performed and appropriate limits to testimony regarding this evidence.

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Toxicology\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0097

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

Page 7 -Conclusions: I disagree with the use of the word "Inconclusive." If a screening test must be reported, then it should say "Screening test positive for XXX by immunoassay (or whatever technique was used), unconfirmed." Or a section of the report must indicate that it was unconfirmed. The lab can also indicate that the sample was IQS for confirmation.

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Toxicology\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0098

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

In section C of the document (Conclusions within the Forensic Toxicology Discipline), the conclusion of inconclusive was listed

as having a positive immunoassay screen with insufficient quantity of sample for a second confirmatory technique.

Inconclusive however implies that there is no value in the test result. There is no point in running an analysis if no report will

be issued. If the inconclusive designation is adopted then there is no point in running an immunoassay if there is an

insufficient amount of sample for a second confirmatory technique.

However an immunoassay screen does have value even without a confirmation. In a medical examiner case, if an immunoassay screen is positive for cocaine that would explain a sudden cardiac event. A result like this is better reported as

" screening test positive for cocaine. Insufficient quantity of sample for confirmation" as opposed to inconclusive which gives

no information whatsoever.

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Comment on FR Doc # N/A

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## General Comment

RE: DEPARTMENT OF JUSTICE PROPOSED UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS FOR THE FORENSIC TEXTILE FIBER DISCIPLINE

1. Inclusions can also be based on chemical properties of a fiber, not just the microscopic or optical as described in the document.
2. It is important to note that, when considering trace evidence, a single examiner has the potential to analyze several different types of trace evidence items (glass, fibers, paint, etc.). Given this possibility, the potential for cross-transfer between questioned and known samples, as well as the transfer of different types of evidence is not discussed. If an examiner cannot state that a fiber originated from a source during testimony when there is a cross-transfer of multiple items of evidence, then the examiner's opinion and interpretation of all of the evidence is not complete. The examiner's interpretation and opinion of all of the evidence that he or she analyzed must be provided to the court in order for the jury/judge to be able to consider all pertinent information.

For example: A victim is struck by an unknown vehicle and that vehicle leaves the scene. The victim's clothing is analyzed and found to have a white paint smear on the back of the sweatshirt. This paint is composed of two different white paints, one more consistent with automotive and one more consistent with a spray paint. Once the vehicle has been found, a paint sample is submitted to the laboratory and found to be composed of a traditional automotive white paint, as well as white spray paint which are physically and chemically the same as the paint found on the victim's sweatshirt. Additionally, there are black fibers found embedded in this paint which are physically, chemically, and optically the same as the fibers from the victim's sweatshirt.

Additional work should be made to incorporate all of the Trace Evidence Categories of Testing into one document so that these situations are not ignored or forgotten. An examiner should be able to testify, completely, to all the evidence he or she examined.

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**Document:** DOJ-OLP-2016-0012-0100

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

**Organization:** Committee for Public Counsel Services (CPCS) and Massachusetts Association of Criminal Defense Lawyers (MACDL)

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## General Comment

PUBLIC COMMENT ON PROPOSED UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS

Docket No. OLP 157

The Staff of the Committee for Public Counsel Services (CPCS), Boston, Massachusetts  
Massachusetts Association of Criminal Defense Lawyers (MACDL), Boston, Massachusetts

July 8, 2016

See attached file(s)

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## Attachments

CPCS MACDL-Submission of Comments for Docket No. OLP 157

Submission of Comments for Docket No. OLP 157

**PUBLIC COMMENT ON PROPOSED  
UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS**

**Docket No. OLP 157**

**The Staff of the Committee for Public Counsel Services (CPCS), Boston, Massachusetts  
Massachusetts Association of Criminal Defense Lawyers (MACDL), Boston, Massachusetts**

**July 8, 2016**

43 pages



**PUBLIC COMMENT ON PROPOSED  
UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS**

**The Staff of the Committee for Public Counsel Services (CPCS), Boston, Massachusetts  
Massachusetts Association of Criminal Defense Lawyers (MACDL), Boston, Massachusetts**

**July 8, 2016**

**General Comments**

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The Staff of the Committee for Public Counsel Services (CPCS) and the Massachusetts Association of Criminal Defense Lawyers (MACDL) are grateful to the Department of Justice (DOJ) for this opportunity to provide feedback on the proposed Uniform Language for Testimony and Reports (ULTR) and accompanying Supporting Documentation for the first set of seven forensic disciplines released on June 3, 2016. CPCS is the statewide public defender agency in Massachusetts, and one of only a few public defender agencies nationally with an in-house Forensic Services Unit and an in-house Innocence Program. MACDL is the state-wide professional organization for criminal defense lawyers.

The Commonwealth of Massachusetts has been deeply affected by serious flaws in the field of forensic science in recent history. As the agencies that are tasked with defending the rights of persons accused of crime in Massachusetts against the backdrop of fraud, malfeasance and misunderstandings about what any particular forensic discipline can be trusted to demonstrate, we are keenly aware of the need for clear, reliable and scientifically supportable language in the forensic science disciplines.

While we acknowledge the Department of Justice's (DOJ) stated commitment to ensuring the accuracy of the testimony and laboratory reports of forensic experts and to strengthening the practice of forensic science through the application of sound scientific principles and procedures, we share the concerns raised by the Public Defender Service and Los Angeles Public Defender Office about the process and timing of the DOJ's promulgation of the proposed uniform language. In particular, we are concerned by the failure of the DOJ to convene a panel of independent experts to offer meaningful scientific peer review of the proposed standards.

We wish to offer several general comments that apply across the seven sets of proposed uniform language, as well as more detailed comments (in separate submissions) pertaining to several of the individual forensic disciplines. In doing so, we also wish to express our institutional support for the general and specific comments provided by the Innocence Project/Innocence Network, Public Defender Service and Los Angeles Public Defender Office.

## Range of error types

**The proposed ULTRs and Supporting Documentation should be more explicit with respect to range of language that is considered to exceed the limits of science, and should track the three Error Types identified by the FBI in its review of laboratory reports and testimony related to microscopic hair examinations.**

- We agree with the Innocence Project/Innocence Network’s Public Comment that the proposed uniform language and supporting documentation should be more explicit with respect to the range of language considered to exceed the limits of science.
- The ULTRs and Supporting Documentation should explicitly recognize *all three* of the error types identified by the FBI in conjunction with its hair examination review. At present, these documents generally recognize and address the first two error types identified by the FBI in conjunction with its hair examination review: (1) stating or implying an association with a specific individual to the exclusion of all others, and (2) assigning a weight or probability regarding the likelihood or rareness of a sample coming from a particular source. However, none of the ULTRs acknowledge or prohibit the third error type identified by the FBI in its hair review, which occurs when an examiner cites the number of cases “worked in the lab and the number of samples from different individuals that could not be distinguished from one another as a predictive value to bolster the conclusion that a hair belongs to a specific individual.” The DOJ has already recognized in the hair examination context that language in the third error type invites the same scientifically unsupported probabilistic conclusions and is therefore highly problematic and impermissible. These statements clearly imply that the examiner’s opinion of inclusion is highly probable, a claim that lacks any scientific basis.

## Cognitive Bias

**Testimony and reports must explicitly acknowledge that cognitive bias is a potential source of error in *all* forensic disciplines, not just latent print analysis.**

- We agree with the Innocence Project/Innocence Network’s Public Comment that testimony and reports must include discussion of uncertainty, sources of error, and sources of subjectivity.
- Testimony and reports should explicitly acknowledge that cognitive bias is a potential source of error in all human decision-making and therefore plays a role in every area of forensic analysis. See Kassin et al., “The Forensic Confirmation Bias: Problems, Perspectives, and Proposed Solutions,” *J. of Applied Research in Memory & Cognition* 2, 42-52 at 44 (2013).

- Among the Proposed ULTRs and Supporting Documentation that the DOJ has thus far released, the only document that even *mentions* cognitive bias as a potential source of error is the Supporting Documentation for the Latent Print Discipline. Even that document references only two sources of cognitive bias – circular reasoning and non-blind verification. However, there are many other ways in which forensic analysts are exposed to task-irrelevant information that creates unintentional contextual bias that can lead to erroneous conclusions. See, e.g., Dror, I., “Cognitive Neuroscience in Forensic Science: Understanding and Utilizing the Human Element,” *Phil. Trans. R. Soc. B* 370 (2015).
- Moreover, contextual bias can impact an examiner’s conclusions in many, if not all, areas of forensic analysis. See, e.g., Nakhaeizadeh, S., et al., “Cognitive Bias in Forensic Anthropology: Visual Assessments of Skeletal Remains is Susceptible to Confirmation Bias,” *Science & Justice* 54, 208–214 (2014); Dror & Hampikian, “Subjectivity and Bias in Forensic DNA Mixture Interpretation,” *Science & Justice* 51, 204-208 (2011).
- It is particularly important that forensic analysts acknowledge and mitigate the risk of cognitive bias, because, as the 2009 NAS Report noted, “the traps that can be created by such biases can be very subtle, and typically one is not aware that his or her judgment is being affected.” National Research Council, Committee on Identifying the Needs of the Forensic Sciences Community, *Strengthening Forensic Science in the United States: A Path Forward*, National Academy of Sciences Press, 185 (2009).
- Consistent with the National Commission on Forensic Science document, “Ensuring that Forensic Analysis is Based upon Task-Relevant information,” which was adopted on December 8, 2015, *all* DOJ Uniform Language for Testimony and Reports and *all* Supporting Documentation should require analysts to explicitly: (a) acknowledge cognitive bias as a potential source of error, (b) avoid exposure to all task-irrelevant information, and (c) document all information that was transmitted both in writing and orally to the forensic analysts. See <https://www.justice.gov/ncfs/file/641676/download> (last visited, July 5, 2016).

### **ACE-V process**

**To the extent that forensic examiners in the disciplines covered by the proposed ULTRs rely on the ACE-V process in reaching a conclusion, the ULTRs should require examiners to acknowledge and state in their reports and testimony that this process involves a subjective judgment by the individual examiner, and the corresponding Supporting Documentation should address the following concerns and limitations with this process.**

- The ULTRs do not require examiners to utilize a particular methodology or process in analyzing questioned samples and comparing to known samples in the forensic disciplines included in the current Public Comment period. However, it is widely recognized that the ACE-V process is commonly utilized by forensic examiners to

conduct such comparisons, not only in the field of latent print examination, but also in the field of footwear and tire tread impression examinations.

- The Supporting Documentation and ULTRs for every forensic discipline that relies on or may rely on the process of ACE-V should include a discussion of ACE-V. The Supporting Documentation and ULTRs should make clear the following issues with respect to permissible testimony by examiners regarding their reliance on this process in *all* applicable forensic disciplines, not just latent fingerprint analysis.
- Subjectivity of ACE-V. The Supporting Documentation for every forensic discipline that utilizes or may utilize the ACE-V process should include an explicit acknowledgment that the ACE-V process involves a subjective judgment by the individual examiner that is based on a visual examination of questioned and known samples. The ULTRs for each forensic discipline should likewise require an explicit recognition of subjectivity.
- Cognitive bias. The Supporting Documentation for every forensic discipline that utilizes or may utilize the ACE-V process should include an explicit recognition that because the process requires subjective judgment on the part of the examiner, all available steps should be taken to minimize the potential sources of cognitive bias. *See* above discussion of cognitive bias.
- Probabilistic statements. The Supporting Documentation and ULTRs for every forensic discipline that utilizes or may utilize the ACE-V process should prohibit examiners from making statements in any of the three error types recognized by the FBI in the context of the hair examination review. The Supporting Documentation and ULTRs should specify that the examiner shall not state that “the quality and quantity of corresponding information [is] such that the examiner would not expect to see that same arrangement in another source” or that “studies have shown that as more reliable features are found in agreement, it becomes less likely to find the same arrangement in a print from another source.” These statements clearly imply that the examiner’s opinion of inclusion is highly probable, a claim that lacks any scientific basis.
- Lack of empirically-derived evidence of significance of features. The lack of empirically-derived evidence or standards based upon evidence for determining what “more reliable features” means, or for determining the significance of any given X number of features, renders this proposed language meaningless.
- Verification. The examiner should not be allowed to state that his/her analysis has been verified by another examiner, or even mention the “verification” stage of the ACE-V process. In addition to the inherent hearsay and confrontation problems, such an assertion introduces elements of confirmation and contextual bias that cannot be adequately countered by cross-examination.
- NAS-Report critiques. The current discussion of the ACE-V process, which appears only in the Supporting Documentation to Latent Print Examinations, fails to address the finding by the 2009 NAS report that ACE-V “is not specific enough to qualify as

a validated method for this type of analysis” because “merely following the steps of ACE-V does not imply that one is proceeding in a scientific manner or producing reliable results.” The discussion of ACE-V also fails to recognize the challenges presented by the quality of latent prints (or footwear/tire tread impressions in that field), despite the fact that quality issues are routinely encountered in real life applications.

- Required safeguards. The changes and safeguards implemented by the FBI in light of the Brandon Mayfield case should not just be described in the Supporting Documentation. Rather, the Supporting Documentation should explicitly require examiners to implement the revised procedures as necessary precautions in the wake of that case.

**PUBLIC COMMENT ON PROPOSED  
UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS**

**Committee for Public Counsel Services (CPCS), Boston, Massachusetts  
Massachusetts Association of Criminal Defense Lawyers (MACDL), Boston, Massachusetts**

**July 8, 2016**

Comments on Proposed Uniform Language for Testimony and Reports for  
the Forensic Textile Fiber Discipline

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**I. Uniform Language**

The uniform language does not provide clear guidance on the use of uniform language in testimony and reports. The current proposal's permissive, somewhat passive language (e.g., "may state or imply" and "may not state or imply") reproduces the historical problems of providing forensic analysts far too little guidance about how to express their opinions to judges and juries. This creates disparate opinions and language from case to case and analyst to analyst, and leaves room for misunderstanding and error. For *approved statements*, we recommend changing "may state or imply" to "shall state or imply," and for *statements not approved*, changing "may not state or imply" to "shall not state or imply."

The comparison opinions by fiber and textile examiners should identify the types of examinations that were conducted and the order in which they were conducted.

Due to the lack of fiber statistics and fiber databases, it is not scientifically sound to infer or imply in a comparison opinion that a fiber came from a single source. Therefore, an examiner should make clear that a fiber examination can only provide an association at the class level and is not a positive identification. Similarly, examiners should be prohibited from state that a questioned fiber is consistent with *originating from* fibers in a known source or item. Comparison opinions should also make clear that no statistical value can be assigned to fiber comparisons, and should provide information on error rates or the lack thereof. Examiners should not cite the number of cases or fibers comparisons on which they have worked as a predictive value to their conclusions because there are no statistics or error rates to support such a value. As noted in the NAS report's discussion on fiber analysis (pages 162-163), there "have been no studies that characterize either reliability or error rates in the procedures."

**II. Supporting Documentation**

There are statements within the Supporting Documentation that overstate the significance of an association between two fibers in the section on "Background" and "Theory of Textile Fiber Examination." The NAS report's discussion of the analysis of fiber evidence notes that there have been no studies to support the proposition in the Background section that "one

would not expect to encounter two fibers selected at random to exhibit the same microscopic characteristics and optical properties.”

Similarly, in the section on “Theory of Textile Fiber Examination, it is an overstatement to assert that “it would be unusual to encounter a fiber selected at random to be consistent with a particular source.” More recently, in 2015 in the United Kingdom, the Forensic Science Regulator was created “to ensure that the forensic science services across the criminal justice system is subject to an appropriate regime of scientific quality standards.” <https://www.gov.uk/government/organisations/forensic-science-regulator>. The Forensic Science Regulator published a guidance entitled “Cognitive Bias Effects Relevant to Forensic Science Examinations” which notes that “(f)or fibres, there is considerable empirical data to support interpretations, such as population studies, transfer and persistence studies, colour block studies and target fibre studies. There is currently no database that provides any guidance with respect to how common a particular fibre might be in the general population.” The Supporting Documentation should explicitly state that fiber examination can only result in a class-level association.

The Supporting Documentation section should include information on the effect of cognitive bias and biasing information on an examiner’s analysis. The supporting documentation should include a discussion of sources of uncertainty and error, including cognitive biases and the role that they can potentially play in a subjective interpretation. An understanding of cognitive biases would presumably inform the comparison process and establish a testing process that provides protections from cognitive biases.

As noted in “Cognitive Bias Effects Relevant to Forensic Science Examinations,” the analysis of fibers can be subject to “... some form of subconscious and unintended bias and will be a particular risk where interpretation and opinions are required.” Because the nature of fiber analysis requires that the examiner be informed of relevant case information, there is a risk of contextual bias. “Risks are low when empirical analysis forms part of the examination processes, and greater where there is an increased reliance on subjective observational analysis.”

The “Policy Considerations” section should be more appropriately labeled “Considerations for Analysis and Interpretation.” This section should include language in the NAS report which states that fiber analysis is used for the comparison of samples to a class of fibers and not for individualization, and on the lack of studies on reliability, error rates and measurements of uncertainty. The discussion of the information from the NAS report is difficult to follow. It should be simplified and clarified by presenting the main points, as they were discussed in the report.

**DEPARTMENT OF JUSTICE PROPOSED UNIFORM LANGUAGE  
FOR TESTIMONY AND REPORTS REVIEW SHEET**

**Directions:** This review sheet is designed to assist you in evaluating the attached Proposed Uniform Language for Testimony and Reports document against certain criteria while maintaining internal consistency in review and assessing comments.

Your use of this rating sheet is completely **optional**. While it is anticipated this review sheet will encourage comments on issues of particular importance, you are welcome to submit comments in any format that you believe appropriate. This review sheet is not intended to limit comments in any way.

If you elect to use the review sheet, you may find it helpful to frame your comments as suggested below.

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**Proposed Uniform Language Discipline Reviewed:**

**Reviewer Name:**

**Reviewer Organization:**

**Statements Approved for Use in Laboratory Reports and Expert Witness Testimony**

Provide a summary of your assessment of the statements approved for use, including the most important highlights from the individual criteria comments.

- The statements approved for use are supported by scientific research.
- The statements approved for use accurately reflect consensus language.
- The statements approved for use are stated clearly.

**Statements Not Approved for Use in Laboratory Reports and Expert Witness Testimony**

Provide a summary of your assessment of the statements not approved for use, including the most important highlights from the individual criteria comments.

- The statements not approved for use are supported by scientific research.
- The statements not approved for use accurately reflect consensus language.
- The statements not approved for use are stated clearly.



**PUBLIC COMMENT ON PROPOSED  
UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS**

**The Staff of the Committee for Public Counsel Services (CPCS), Boston, Massachusetts  
Massachusetts Association of Criminal Defense Lawyers (MACDL), Boston, Massachusetts**

**July 8, 2016**

Comments on DOJ Proposed Uniform Language for Testimony and Reports  
for the Forensic Glass Discipline.

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**I. Uniform Language**

The clarity of the uniform language is of the utmost importance. The recommended conclusions must be descriptive in not only the result obtained but also in how that conclusion is to be applied to the case. While the ULTR document is only a list of uniform language, it is important to note that the work going into the report and testimony is going to vary from lab to lab and even from case to case, due to the ULTR not endorsing what types of testing or procedures are proper in the field of forensic glass analysis. It is therefore vital to address the potential differences in the analytical work performed in various labs by limiting the possible opinions presentable.

The number of possible opinions by glass examiners should be reduced to **three** categories for comparison opinions (e.g., inclusion or identification, exclusion or elimination, and inconclusive), and should retain the “unsuitable” or “insufficient” opinion for those evidentiary or known items that cannot be compared. This reduction is not intended to reduce an examiner’s ability to explain the similarity or dissimilarity of questioned glass evidence with the glass from a known source. However, this change will bring the opinions of forensic glass examination in line with the ULTR for other types of forensic identification.

For the first category of inclusive results, it may still be appropriate for the ULTR to allow a conclusion “that the glass fragments were once part of the same broken object.” The ULTR must continue to require a physical fit of two samples to allow the finding of a single source for the glass fragments. However, there are no standards presented in this document, or in the supporting documentation that defines, standardizes, or otherwise justifies the finding of a physical fit. It is important the ULTR provide examiners guidance on **when** this “fit” is attempted and **how** to weigh the “fit.” If the two pieces are deduced to “fit” by whatever means the examiner thinks appropriate, the ULTR and supporting documents should make clear that the analysis must still continue until all analytical testing planned or available is performed. As there is a potentially subjective component to the “fit,” completing the rest of the analytical work (i.e., physical assessments and chemical/elemental testing) should be required and articulated in the ULTR to justify the use of the highest possible association between the evidence. Otherwise, it is possible that an examiner could base an approved opinion on contextual information instead of articulated standards for weighing the “fit.”

The ULTRs for an inclusive finding without a physical fit require that all physical and chemical properties and measurements are identical. However, again, it is noted that the specific standards and methods required to draw such a conclusion are inadequately described. The finding allows an analyst to state “that the glass fragments either originated from the same broken glass source or from another source(s) of broken glass indistinguishable in all of the measured or observed physical properties, refractive index, and elemental composition. This conclusion is reached when two or more broken glass fragments are indistinguishable in their assessed physical characteristics, refractive index and chemical composition.” But, the actual properties and tests used are seemingly left to the laboratory to determine. What testing is sufficient for this seeming strong conclusion? Is just a refractive index (physical property) and elemental composition (chemical test) enough? What are the required measurements and the acceptable uncertainties?

This conclusion is likely to be seen as the equivalent of the positive match or determination of a single source. This is not necessarily a supportable inference. Without data regarding the probability of two unrelated glass fragments having the same characteristics, and scientifically sound consideration of the measurements involved (sensitivity, uncertainty, and other values), it is far more prudent to state that the fragments, “either originated from the same broken glass source or from another source(s) of broken glass consistent in all of the measured or observed physical properties, refractive index, and elemental composition.”

The next potential conclusion presented in the ULTR is one “that the possibility that the glass fragments originated from the same source of broken glass cannot be eliminated. This conclusion is reached when two or more fragments of glass are indistinguishable in their physical characteristics and refractive indices but chemical analysis was not performed.” The use of “indistinguishable” in both of these conclusions links them in a way that, ironically, fails to distinguish them. The use of the term is inappropriate here, if only because one method of possible comparison which would indeed potentially distinguish the two, a chemical and elemental analysis, has not been performed. Hence, “indistinguishable” is certainly NOT an appropriate term for two pieces that have not been tested to determine their elemental composition. The chemical and elemental analysis is arguably the most important way to discriminate between glass objects and the absence of that testing, by necessity, makes the association of the two less certain by orders of magnitude.

This is not an inclusive finding, but actually an inconclusive one. The possibility of a shared source cannot be eliminated. The use of the phrase “cannot be eliminated” certainly indicates more doubt than the “same or indistinguishable” from the conclusion above, so the claim that an inclusion was found, based merely on the tested for physical properties, is potentially unsupported. The samples apparently have consistent physical properties, but the value of that determination is only as strong as the testing performed and the probabilities involved in the sampling. Therefore, this conclusion should be clearly defined as an inconclusive or indeterminate one, with the consistent findings detailed in the report.

The other conclusions (indeterminate or untested and excluded) are less problematic, but the basis for such conclusions must be clearly detailed in the report. If the analyst concludes the sample is untestable and of no evidentiary value, that decision must also be documented, justified and reviewable. The ULTR should also make it clear that a conclusion of indeterminate or no

evidentiary value is only appropriate if the suspect glass not only lacks inclusive features, but also has no features that might yield an exclusionary result.

Finally, the use of probability language when forming or explaining an opinion should be prohibited in the ULTR. The FBI itself states (on the webpage mentioned in the supporting documents section), “Databases of refractive indices and/or chemical compositions of glass received in casework have been established by a number of crime laboratories (Koons et al. 1991). Although these glass databases are undeniably valuable, it should be noted that they may not be representative of the actual population of glass, and the distribution of glass properties may not be normal. Although these are not direct indicators of the rarity in any specific case, they can be used to show that the probability of a coincidental match is rare.” While the FBI seems to accept the possible appropriateness of such a showing, they also note, “Because of the complexity of the calculations, Bayesian statistical analysis including compositional data is extremely difficult to apply.”

The proposed ULTR states that “conclusions may include probabilities based on appropriate databases or documented frequencies,” which contradicts the FBI’s findings and the ULTR’s own Supporting Documentation. It seems impossible that a strictly physical analysis could ever justify the use of probabilistic analysis, as there are too many potential sources of glass fragments to make a sound probabilistic analysis based only on physical characteristics. Probabilistic statements are some of the most convincing arguments to triers of fact, but they are also the most difficult propositions to support. If forensic experts are going to mention any kind of probabilities in their conclusions, the sources used and calculations performed must be detailed, and the limitations of those calculations and conclusions should be specifically articulated. Any database used should be accessible to the public or to defense experts. The ULTR should also specify that personal experience is not an acceptable source of probabilistic statements. Such subjective experience is not an appropriate or valid source for such statements.

## **II. Supporting Documentation**

The supporting documentation portion of the Glass Analysis ULTR lists many sources of information, but does not significantly detail the sources’ findings or contents. They mention studies attempting to determine the rates of broken glass being found on a random person, but do not mention the limitation of such studies. For example, one citation regards Canadian High School students and another one looked at shoes of people in South-eastern Australia. Using any statistic or finding derived from these studies as support for evidence in a criminal case would be premature. Indeed, the variables involved in such an undertaking would seem to render the effort moot. A suspect living in a particular city, with a particular occupation, with a particular routine or daily life may have a much greater chance of exposure to glass particles or greater chance of transfer or retention. The Supporting Documentation should make clear the limitations of these studies, and the limitations of their use in forming an opinion.

Much of the source material is also exclusive to the realm of forensics. As the Supporting Documentation claims that the analytical methods used in glass analysis were developed outside of the realm of forensics, other sources of supporting documentation should be available. The methods described do seem to have originated in the realms of the material sciences, so their

validity should be capable of independent citation and assessment without relying on the statements or endorsements of the FBI or SWGMAT exclusively.

Of greatest concern is the lack of a validated and objective standard for the assessment of whether or not two pieces of glass can be accurately sourced by attempting to physically fit them together. The FBI, in an April 2009 newsletter mentioned in these supporting documents, simply states, “Only physically matching two or more broken glass fragments allows for their association with each other to the exclusion of all other sources (Scientific Working Group for Materials Analysis [SWGMAT] 2005c).” The SWGMAT guideline states this process to determine a fit: “Align the edges of two pieces of glass that appear to match physically. Two pieces of glass will not slip past one another with gentle pressure when there is a physical match. Examine the broken edges using low-power light microscopy to observe corresponding Wallner lines (ridges) and/or hackle marks on the matching pieces of glass. Features, such as surface scratches or ream, may also match across a fracture.” If this is to be the standard, it should be explicit.

Also concerning is the lack of documentation on the limitations of the testing methods presented in this section. Many of these techniques are still potentially subjective in nature, and thus open to cognitive and contextual biases, from sample selection and assessment, comparison of variations, dismissal of potentially exculpatory dissimilarity, and the like. There are more objective limitations as well, from potential variations in measurement capabilities, exhaustive or destructive testing procedures, and a lack of statistical information to support the use of terms such as “likely,” “rare,” and “indistinguishable.” There are also limitations to the procedural aspects of the testing, such as the order in which the testing should be done, or other procedural safeguards to limit the effects of human error and bias. The ULTRs should provide more information about the limitations of these techniques and the interpretations that can be drawn from any results.

To that same end, the Supporting Documentation should include a more robust justification of the many and varied tests possible, as well as how to limit the chance of the kinds of errors which have caused so much concern in the forensics field. Including this information would justify the ULTR, by assessing the entirety of the practice in that particular field and setting standards by which labs can accurately come to the conclusions offered.

**PUBLIC COMMENT ON PROPOSED  
UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS**

**The Staff of the Committee for Public Counsel Services (CPCS), Boston, Massachusetts  
Massachusetts Association of Criminal Defense Lawyers (MACDL), Boston, Massachusetts**

**July 8, 2016**

Comments on DOJ Proposed Uniform Language for Testimony and Reports for  
the Latent Prints Discipline

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In addition to the recommendations below, the Staff of the Committee for Public Counsel Services (CPCS) and the Massachusetts Association of Criminal Defense Lawyers (MACDL) endorse the suggested edits to the Latent Prints Discipline ULTR and Supporting Documentation that are proposed by the Innocence Project/Innocence Network.

**I. Uniform Language**

The uniform language does not provide clear guidance on the use of uniform language in testimony and reports. The current proposal’s permissive, somewhat passive language (e.g., “may state or imply” and “may not state or imply”) reproduces the historical problems of providing forensic analysts far too little guidance about how to express their opinions to judges and juries. This creates disparate opinions and language from case to case and analyst to analyst, and leaves room for misunderstanding and error. For approved statements, we recommend changing “may state or imply” to “shall state or imply,” and for statements not approved, changing “may not state or imply” to “shall not state or imply.”

Categories used for comparison statements should be consistent with other impression and “pattern-matching” disciplines (see, for example, Fiber ULTR: Inclusion, Exclusion, Inconclusive). The ULTR does not provide sufficient guidance to examiners in stating an opinion about the “quality and quantity” of corresponding information during a friction ridge analysis. We recommend requiring the examiner to affirmatively describe the “quantity and quality” of information used during the comparison. Additionally, an examiner must state that determinations of both “quantity” and “quality” are subjective opinions.

While we support the Department’s proposal that examiners cannot state an inclusion is “to the absolute exclusion of all others,” the remainder of that section’s proposed language is misleading and possibly contradictory. It encourages an examiner to state that as a sufficient number of reliable features were found in agreement between the questioned and known impressions, it is unlikely (or “less likely”) that another print is the source. This language inherently implies that no other source is probable, and thus should not be included in the ULTR. It is also problematic that the ULTR suggests that such a statement could be made if “more reliable features are found in agreement” between the two impressions, but provides no definition or direction as to the term “more reliable features” or the number or quality of the

features. This runs the risk of disparate and contradictory opinions from Department personnel, from laboratory to laboratory and analyst to analyst.

Regarding statements that are not approved, the examiner should not state or imply that his or her opinion and findings have been “verified” by a second examiner. Relatedly, the ULTR regarding “Zero Error Rate” should mirror the prohibited language in other disciplines’ ULTRs, specifically that language included in the ULTR for footwear and tire impressions. Beyond prohibiting examiners from stating or implying a zero – or near zero – error rate for their methods or opinions, the ULTR must prohibit examiners from stating or implying **any** numerical value or percentage, including zero, to their methods or opinions.

## **II. Supporting Documentation**

The assertion that “[s]cientific testing of this premise [of uniqueness] has demonstrated that even identical twins, who share the same genetic information, have different fingerprints” is misleading and should not be permitted in testimony or reports. This assertion obscures the fact that identical twins usually share many similar characteristics, and the question of identification in practice is almost always how can uniqueness be determined, based upon a latent print of less than sterling quality. The assertion that even twins have different fingerprints is further misleading because the fingerprints of *any* sibling are known to share characteristics with *all other* siblings.

Moreover, the following statement should be stricken from the Supporting Documentation section, as there are no empirical studies supporting the assertion:

“There are different methodologies and processes for conducting a latent print examination. The Department shares information regarding some appropriate processes below. The Department does not suggest that the processes outlined here are the only valid or appropriate processes.”

The statement should also be stricken because the only process actually outlined below the disclaimer is ACE-V. As the Supporting Documentation does not – despite the disclaimer – provide information about other possible “processes,” the section implies the appropriateness of ACE-V. Additionally, we make the following recommendations regarding the section discussing ACE-V:

- Limitations of ACE-V. The Supporting Documentation should include the findings in the 2009 National Academy of Sciences report that ACE-V “is not specific enough to qualify as a validated method for this type of analysis” and that “merely following the steps of ACE-V does not imply that one is proceeding in a scientific manner or producing reliable results.” See National Research Council, *Strengthening Forensic Science in the United States: A Path Forward* 142 (2009). The discussion of ACE-V also fails to recognize the challenges presented by the quality of latent prints (or footwear/tire tread impressions in that field), despite the fact that quality issues are routinely encountered in real life applications.

- Subjectivity of Opinions. The Supporting Documentation should include an explicit acknowledgment, articulated by the NAS Report, that the ACE-V process involves a subjective judgment by the individual examiner based on a visual examination of questioned and known samples.
- Probabilistic statements. The Supporting Documentation and ULTRs for every forensic discipline that utilizes or may utilize the ACE-V process should prohibit examiners from making statements in any of the three error types recognized by the FBI in the context of the hair examination review. The Supporting Documentation and ULTRs should specify that the examiner shall not state that “the quality and quantity of corresponding information [is] such that the examiner would not to expect to see that same arrangement in another source” or that “studies have shown that as more reliable features are found in agreement, it becomes less likely to find the same arrangement in a print from another source.” These statements clearly imply that the examiner’s opinion of inclusion is highly probable, a claim that lacks any scientific basis.
- Lack of empirically-derived evidence of significance of features. The lack of empirically-derived evidence or standards based upon evidence for determining what “more reliable features” means, or for determining the significance of any given X number of features, renders this proposed language meaningless.
- Verification. The examiner should not be allowed to state that his/her analysis has been verified by another examiner. In addition to the inherent hearsay and confrontation problems, such an assertion introduces elements of confirmation and contextual bias that cannot be adequately countered by cross-examination.
- Required safeguards. The changes and safeguards implemented by the FBI in light of the Brandon Mayfield case should not just be described in the Supporting Documentation. Rather, the Supporting Documentation should explicitly require examiners to implement the revised procedures as necessary precautions in the wake of that case.

We support and commend the Department’s inclusion of language in this section regarding the potential for examiner bias. However, we recommend that additional information be included to properly guide examiners beyond analyzing the questioned impression prior to analyzing the known print. The ULTR should also describe the role of cognitive bias and specify how to limit the impact of bias in an examiner’s analysis. *See* NRC at 122 (*citing* M.J. Saks et al, *Context Effects in Forensic Science: A Review and Application of the Science of Science to Crime Laboratory Practice in the United States*, 43 *Science and Justice* 77-90 (2003)). Specifically, the Supporting Documentation should include specific steps that researchers have identified reduce cognitive bias, such as the need for blind verification that involves sequential unmasking of case-related information. *See e.g.*, National Institute of Standards and Technology, *Latent Print Examination and Human Factors: Improving the Practice Through a Systems Approach* 12 (2012) (“[B]ind verification shields the verifying

examiner from contextual bias that might otherwise affect the outcome in difficult cases. The Noblis-FBI experiment . . . indicated ‘that blind verification of exclusions could greatly reduce false negative errors.’”) (quoting B. Ulery et al, “Accuracy and Reliability of Forensic Latent Fingerprint Decisions,” *Proceedings of the NAS* (2011)). The National Academy Science’s 2009 report provides a thorough discussion of cognitive bias and its effects on forensic examiners and their conclusions. *See e.g.*, NRC at 122-124. Much of this language could be included in this section.



# **Comments**

**101 - 120**

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## Submitter Information

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## General Comment

The Centre of Forensic Sciences, Ontario, Canada has provided comments in the attached document in the recommended format.

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## Attachments

PROPOSED UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS - Fiber

## PROPOSED UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS –FIBRES

### The review sheet format

Proposed Uniform Language Discipline Reviewed: Forensic Textile Fibre Discipline

Reviewer Name: Christine McCarthy (b) (6)

Reviewer Organization: Centre of Forensic Sciences, Toronto, ON, Canada

### Statements Approved for Use in Laboratory Reports and Expert Witness Testimony

1. Fibre classification

We agree with the statements and feel that they are clearly stated, supported by research, and accurately reflect consensus language. Our laboratory uses similar language. Unequivocal identifications of the generic class of fibres are reported as such (e.g cotton, nylon, polyester). Sub-classifications are not reported (e.g nylon 6, polyester PET).

2. Fibre comparisons

Inclusion; we feel that the statement is supported by research and accurate reflects the consensus language. However, our laboratory does not use the wording “the **same** microscopic characteristics and optical properties” or “**consistent with** originating from”. Instead of the former we use “**indistinguishable** microscopic characteristics” and for the latter we use instead “the unknown fibres either **originated** from the known item, or *originated from another source with indistinguishable fibres*”.

The reason for this stems from recommendations made of the Proceedings Involving Guy Paul Morin also known as the Kaufman Report ([Guy Paul Morin \[executive summary\]](https://www.attorneygeneral.jus.gov.on.ca/english/about/pubs/morin/morin_esumm.pdf)) ([https://www.attorneygeneral.jus.gov.on.ca/english/about/pubs/morin/morin\\_esumm.pdf](https://www.attorneygeneral.jus.gov.on.ca/english/about/pubs/morin/morin_esumm.pdf)) ; *which was the formal inquiry into the death of Christine Jessop, the conduct of the Centre of Forensic Sciences in relation to the maintenance, security and preservation of forensic evidence, and into the criminal proceedings involving the charge that Guy Paul Morin murdered Christine Jessop*).

With specific reference to report wording; “**Finally, he noted that certain terms, such as ‘match’ and ‘consistent with’ were used unevenly and were potentially misleading. The use of these terms contributed to misunderstanding of the forensic findings.**” (p.7 of 40 of the Kaufman report-executive summary)

We also include notes for fibres of lower discriminating value: If the discriminating value of the fibres compared is very low (due to limited testing or ubiquitous fibres) this should be explained as a note in the Conclusions. For example: *COTTON: Due to the ubiquitous nature of these fibres, the presence of these fibres may be of low significance.*

Exclusion; we feel that the statement is supported by research and accurate reflects the consensus language. Although, as mentioned above, we would exclude the use of the word ‘consistent with’ and instead write “the unknown fibres *did not originate from the known item (or from any of the items used for comparison)*”.

## Statements Not Approved for Use in Laboratory Reports and Expert Witness Testimony

1. Individualization

We agree with this statement, that the examiner may not state or imply that a fiber came from a particular source to the exclusion of all other sources.

2. Statistical weight

We agree with this statement, the examiner may not state or imply a statistical weight or probability to a conclusion or provide a likelihood that the questioned fiber originated from a particular source.

3. Zero error rate

We agree with this statement, the examiner may not state or imply that the method used in performing fiber examinations has a zero error rate or is infallible.

We feel that the statements are supported by scientific research, accurately reflect consensus language and are stated clearly.

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## Submitter Information

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## General Comment

Comments to DOJ Uniform Language Proposal.

My name is Jessica Gabel Cino and I am a law professor at Georgia State University College of Law. I echo and support the comments made by Professor Epstein and the D.C. Public Defender Service/LA County Public Defender and submit my own (attached).

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## Attachments

Cino Comments to DOJ Uniform Language Proposal

July 8, 2016

To Whom It May Concern:

Thank you again for the opportunity to comment on the proposed uniform language for forensic science reports and testimony. Below are my comments related to specific forensic disciplines.

1. Latent Prints

- a. The term identification invites a wide range of subjectivity into the analysis. This is problematic because, as the Human Factors Report notes: “The thresholds for these decisions can vary among examiners and among forensic service providers. Some examiners state that they report identification if they find a particular number of relatively rare concurring features, for instance, eight or twelve. Others do not use any fixed numerical standard. Some examiners discount seemingly different details as long as there are enough similarities between the two prints. Other examiners practice the one-dissimilarity rule, excluding a print if a single dissimilarity not attributable to perceptible distortion exists.” The continued use of identification as a conclusion does nothing to advance the science of latent prints.
- b. The broad use of identification simply means inclusion: it “increases the probability that a trace originated from a particular source within that set, and an exclusion decreases this probability to essentially zero.” Yet allowing that term to be used more narrowly, it effectively “justif[ies] a source attribution” when the science does not support that. In fingerprints, the term identification is synonymous with the more outdated term “individualization.” And individualization itself replaced the term “match.” You can dress up “identification” however you want, but at bottom it still is equated with a match to the exclusion of all others and should be avoided.
- c. Further, the ACE-V method is a subjective test with a variety of implementations across the country. An examiner could make an identification in one state or jurisdiction and a different examiner could not find an identification from the same materials. The subjectivity of ACE-V does not and should not allow for forensic reporting to even imply source attribution.

2. Footprint and Tires

- a. The amount of categories for reporting appears to be establishing a scale of certainty, for which there is no scientific support. This scale of certainty leaves a wide latitude of subjectivity. To a lay person “could have made,” “could not be determined” and “indications did not make” potentially have the same meaning. The minute details that differentiate the aforementioned categories do not change reality. The reality is that there is “a degree of non-association between the questioned impression and the known source, which is based on observed dissimilarities.” Instead of proliferating positive statements with implications towards levels of certainty we should be creating statements that indicate the limitations of the examination.

3. General Chemistry

- a. General Chemistry appears to have taken what is scientifically defensible into consideration. Granted the majority of the testing is objective and allows for calculable error rates and true “identifications.” Essentially, they can get to ground truth. However, the lack of broad based qualitative statements in the Uniform Language document sets up a conflict of interest related to the limitations of either the analyst’s expertise or the science itself. Instead of merely **suggesting** the analyst to report the limitations of his/her examination we should be **requiring** the analyst to report the limitations.
- b. The language in the Uniform Language document: “The examiner may report and/or state the limitations of his/her examinations and opinions.”

4. Fibers

- a. Allowing the analyst to “state/imply” for all categories of fiber classification and comparisons gives the analyst too much leeway. There has to be a statement on the limitations of the examination for the analyst to merely imply a classification or comparison. Otherwise the implication could easily be interpreted as “to the exclusion of all others” by a jury.
- b. The same is true using the phrase the “fiber is consistent with.” A statement acknowledging the limitations of the examination needs to be present. We cannot assume jurors will take limitations into consideration. Further, the word “consistent” opens the door to abuse in closing arguments. A statement such as, “the questioned fiber is similar to or consistent with the known sample but cannot be conclusively sourced to the known sample,” could be a good alternative to the current proposed language.

5. Conclusion

- a. Creating a uniformed language standard for reporting is a necessary step to establishing accountability and increasing reliability within forensic reporting. However, unifying ambiguity only amplifies inaccuracy. The juror perception of statements and language used in reporting needs to be a significant consideration in developing the uniformed language standard. Although we can never eliminate bias and faulty assumptions held by jurors and legal professionals that result from forensic reports, we can seek to create forensic reporting language that is honest and above reproach.

Sincerely,



Jessica Gabel Cino  
Associate Professor of Law  
Associate Dean for Academic Affairs

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## General Comment

The Centre of Forensic Sciences, Ontario, Canada has provided comments in the attached document in the recommended format.

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## Attachments

PROPOSED UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS - General Chemistry



## **PROPOSED UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS –GENERAL CHEMISTRY DISCIPLINE**

The review sheet format

**Proposed Uniform Language Discipline Reviewed: General Chemistry Discipline**

**Reviewer Name: Michael McVicar**

**Reviewer Organization: Centre of Forensic Sciences, Toronto, ON, Canada**

### **Statements Approved for Use in Laboratory Reports and Expert Witness Testimony**

Regarding statement 5: “The examiner may report and/or state the weight or volume of a substance which was examined. The weight or volume reported will include an associated estimated measurement of uncertainty and confidence level.”

Weights or volumes are commonly included in a report as a descriptor of the sample when the measurement is not critical to the examination – e.g. “approximately 20mL of liquid collected from a fuel can” or “approximately 30g of soil and debris were collected from the clothing”. Including an uncertainty of measurement in these instances does not add to the significance of the report. These estimates are included to assist in interpretation of the result, such as whether there was only a trace of material present vs kilograms.

An uncertainty of measurement and confidence level are needed when the characteristic measured is critical to an element of the examination, such as firearm barrel length or weight of controlled substance recovered.

### **Statements Not Approved for Use in Laboratory Reports and Expert Witness Testimony**

Regarding statement 2: “When no sampling plan was used and no reasonable assumption of homogeneity of an item was determined, the examiner may not report or state an opinion that the conclusions apply to the entirety of an item (or a percentage of the item).”

I would suggest that the pre-emptive language “shall not report” is needed here rather than the permissive “may not report”.

### **Supporting Documentation for the General Chemistry Discipline:**

Regarding the description of Forensic Chemistry: “Forensic chemistry is the application of chemistry for legal proceedings; it involves determining the chemical identity and characteristics of substances and performing chemical comparisons of substances.”

I would suggest “...performing chemical and physical examinations and comparisons.”  
Rationale: Forensic Chemistry involves more than chemical testing. Much of Forensic Chemistry involves microscopic examination, recovery and classification of trace evidence

based on microscopic appearance, color, texture, phase distribution etc. Likewise, many of the instrumental techniques applied to trace evidence, such as FTIR, XRD, SEM/EDX, etc., rely on physical properties of the samples rather than chemical ones.

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## Submitter Information

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## General Comment

Inconclusive

o The proposed language should be more clear about stating or implying a level of certainty that is numerically calculated. Is it appropriate with an inconclusive conclusion to state the number of correlating Level 2 Detail and or other features between two impressions? There has been several discussions in the our Section regarding the value of giving direct testimony that while there was insufficient data to render an decision of identification, there were a certain number of matching features between the two impressions. In my opinion this may imply an level of certainty that is interpreted by the jury and court as having more weight than it actually does.

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## General Comment

The supporting documentation mentions implementing Blind Verifications, but does not go into detail when that quality assurance measure is used.

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## Submitter Information

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## General Comment

See attached file(s) from the Biological Data Interpretation and Reporting Committee (OSAC)

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## Attachments

Comments on Documents from DOJ re Serology Uniform Language July 2016

Comments on “Proposed Uniform Language for Testimony and Reports...” – Serology from the Biological Data Interpretation and Reporting Committee (OSAC)

Overall the statements and presentation are fine. Just a few suggestions to consider:

1. Page 1, Box at top, third line: Judges should not be determining what language is being used in court or in reports. The scientists should be making that decision based on scientific reasoning and not judges based on legal precedent (which may have no scientific foundation) – it seems that this is part of the reason that this document is being created. Suggest deleting that phrase.
2. Consider changing the title to ....Examination of Serological Evidence. We do not examine serology but rather evidence for body fluids.
3. Page 1, Title of Section “Statements Approved for Serological Examination....”: delete “or” of “and/or” and just have “and” since both testimony and reports should use the language
4. Page 2, Negative Result section: suggest adding that negative result means “no result”; maybe put “Negative Result (No result)”
5. Perhaps a statement regarding false positives due to unknown cross-reactivity could be added
6. Perhaps add a sentence stating that these statements can only be used if the appropriate positive and negative controls have been performed on the reagents and the substrate being tested to confirm the test is functioning properly.

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## General Comment

See attached file(s) from The Biological Data Interpretation and Reporting Committee (OSAC)

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## Attachments

Comments on Documents from DOJ re Serology Supporting Documentation July 2016

Comments on “Supporting Documentation for Department of Justice Proposed Uniform Language...”  
Form the Biological Data Interpretation and Reporting Committee (OSAC)

1. Consider changing the title to.....Examination of Serological Evidence. We do not examine serology.
2. Page 2, top paragraph – perhaps add “typically” or “in a normal healthy human” as many of these numbers vary with different people with various health or disease states (e.g., anemia, bacterial infections, HIV or other viral infections, cancer).
3. Figure 1 doesn’t really add anything. Could delete.
4. Page 2, B. Semen, first line: I’m not sure that reproductive fluid can be “male”; in this case male is meant to be a noun and not an adjective; perhaps: “the reproductive fluid produced by males”
5. Page 3, second paragraph, last sentence:
  - a) suggest replacing “separate” with “enrich for” since the process does not always result in a clean separation of the DNA from the two individual contributors
  - b) non-sperm cells can be present in the semen and from other orifices from the female other than the vaginal cavity (and orifices from males as well). Perhaps this sentence should be expanded to be more complete.
6. Page 4, 6<sup>th</sup> line, end of line: Replace “Several” with “These” – unless there are others than AP and p30 being used.
7. Page 5, top paragraph: FBI is mentioned whereas DOJ is mentioned everywhere else
8. Page 5, under “Serological Examination Process,” second paragraph, second sentence: Visual examinations are not “serological” in nature, rather examinations conducted by serologists or biologists in the serology section. Suggest deleting that word or moving it to a more correct location. Also, a comma needs to be added in front of “which.”
9. Page 5, under “Serological Examination Process,” second paragraph, third sentence:
  - a) replace “determine” with “assess” or add “aid in determining” since a presumptive test does not “determine”
  - b) the commas and quotations marks were confusing. Suggest: “tests used for screening (called “presumptive” tests) and tests (called “confirmatory” tests) used to identify a body fluid (e.g., blood or semen).
10. Page 5, Under A. Presumptive tests used...., second line: May take the opportunity to explain that detecting a very small amount of body fluid means there is fairly high sensitivity of the assay. Page 5 under Presumptive tests – uses the language “an appropriate identifying test” – it would be clearer and more in line with the rest of the document to state confirmatory test. This paragraph also makes it sound like a confirmatory test is required. May want to make it clearer that is not the case.
11. Page 6, first sentence under The Kastle Meyer Test: substitute “for” for “that detect” since the word “detect” is used twice in the sentence. Perhaps “biochemical assays for the presence of the iron-containing heme group...).



12. Page 6, bottom: Should the procedure spell out that this is how it is performed at the FBI rather than suggesting that a moistened cotton-tipped swab is the only means of testing a stain? Other laboratories do cuttings, use filter paper, rubbings, scrapings, etc., or state laboratories may use all of the above?
13. Page 7, end of first paragraph: maybe “i.e.,” should be “e.g.,”
14. Page 7, top two paragraphs: Perhaps these two paragraphs could be combined for clarity
15. Page 7, last sentence of last paragraph before Hemochromogen Crystal Test: perhaps add that the false positive results are the reason it is a presumptive test
16. Page 8: perhaps mention that there are other tests for the confirmation of blood (e.g., using antibodies) . Additionally, the photograph of the Takayama crystals is unclear and not representative of what how they truly appear.
17. Page 9, middle paragraph, last sentence: Delete the second “used” in the sentence
18. Page 9 – under detecting semen. When describing a semen stain, it mentions that they can be heavy and crusted. Even though this is true it is misleading as most often they are not and are usually dilute. The next sentence mentions if low quantity semen is present, the stain may be hard to visualize in normal light. Plenty of high quantity stains are hard to visualize because they are diluted but there is still a large amount of sperm and high AP activity. Suggest that this whole section be re-written to address how stains usually appear.
17. Page 9, last sentence: is a hyphen needed after “pink” and “purple”?
18. Page 10, first line of first full paragraph: perhaps list some other body fluids with AP in parentheses with “e.g.,”.
19. Page 11, top of page: Is there no literature from the company to cite regarding the quantitative information?
20. Page 12, first sentence: “Forensic examiners” probably does not need to be capitalized.
21. Page 12: The persistence of the semen and its components on an item is different from the detection of the activity of its components. Semen may still be present on an evidence item in the absence of AP activity unless some activity occurred to remove the semen from the item prior to testing. The wording in the paragraph is a bit confusing or misleading – clarification is needed to differentiate persistence of “semen” and persistence of the ability to detect its presence.
22. Page 13, Table 1 and text: Survival of sperm and the ability to detect sperm have two different meanings. Perhaps “survival times” and “survivability” (which also suggests viability) should be replaced with another term, such as “detection of.” Additionally, the table on sperm cell survival times is very misleading. Yes sperm can survive up to these times in the various locations but the quantity and quality of sperm on day four is nowhere near the quality or quantity of sperm on day one. If one has numerous sperm with tails these are not from day 4 but this table could easily be interpreted that way. A clarification needs to be added that there is a significant decrease in the quality and quantity of sperm

over time and that the results at the end of the time frame are at the limits of detection of the assay and do not mirror those of earlier time points (or something to that affect).

23. Page 13, first sentence: it is unclear what “their” is referring to. If seminal fluid, then it should be singular; if sperm cells, then the sentence is unclear. Suggest combining this paragraph with the paragraph above on page 12 since some information is repetitive.

24. Page 14, first paragraph, 7<sup>th</sup> line: Suggest adding “most” in front of “forensic laboratories no longer perform.”

25. Page 15: Perhaps this paragraph needs to be updated and modified since ASCLD/LAB does not exist anymore. Also their assessment cycle is every 4 not 5 years.

**Comment ID:** 0108

**Discipline:** Overall

**Comment Category:** Underlying Science

**Name/Organization:** E.G. Morris, National Association of Criminal Defense Lawyers

**Summary:** The ULTRs are simply too broad and too permissive to prevent testimonial overstatements that convey scientific certainty to the jury in disciplines that are highly subjective. In order to prevent the type of testimonial overstatements identified by the MHCA Review, the guidance provided to examiners about testimony and lab reports must be detailed and specific.

**Comment ID:** 0108

**Discipline:** Overall

**Comment Category:** Underlying Science

**Name/Organization:** E.G. Morris, National Association of Criminal Defense Lawyers

**Summary:** DOJ Must Directly Solicit and Implement Feedback From the Scientific Community Outside of Legal and Forensic Practitioners. DOJ should seek input from the NIST OSACs as they also work to develop standards. Moreover, it is unclear how the ULTRs will interface with the OSAC guidelines, and the President's Council of Advisors on Science and Technology (PCAST) Report. DOJ must firmly establish the role of the ULTRs and be explicit that they will not replace guidelines set by scientists based on actual discipline validation.

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**Organization:** National Association of Criminal Defense Lawyers

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## General Comment

See attached file(s)

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## Attachments

NACDL Comment Docket No. DOJ-OLP-2016-0012



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July 8, 2016

**Comment by the National Association of Criminal Defense Lawyers  
on Department of Justice Proposed Uniform Language for Testimony  
and Reports**

**Docket No. DOJ-OLP-2016-0012**

To whom it may concern:

The National Association of Criminal Defense Lawyers (NACDL) commends the Department of Justice (DOJ) for developing uniform standards for testimony and lab reports generated by the Federal Bureau of Investigation (FBI), the Bureau of Alcohol Tobacco and Firearms and Explosives (ATF) and the Drug Enforcement Administration (DEA). NACDL further commends the DOJ for releasing these standards for public comment, particularly for comment from the scientific community. NACDL has worked collaboratively with DOJ, the FBI and the Innocence Project on the microscopic hair analysis review project since 2012, and, as a result, we have seen firsthand how pervasively hair examiners exaggerated their conclusions when testifying in hair comparison cases. Thus, this initiative by DOJ, along with its commitment to making both efforts “deliberative” and “transparent” is most welcome. In the spirit of that commitment to a deliberative and transparent process, NACDL offers these comments on the proposed “Uniform Language for Testimony and Reports” (ULTR).

NACDL is the preeminent organization advancing the mission of the criminal defense bar to ensure justice and due process for persons accused of crime or wrongdoing. A professional bar association founded in 1958, NACDL’s approximately 9,000 direct members in 28 countries—and 90 state, provincial, and local affiliate organizations totaling up to 40,000 attorneys—include private criminal defense lawyers, public defenders, military defense counsel, law professors, and judges committed to preserving fairness and promoting a rational and humane criminal justice system. NACDL has a keen interest in ensuring the accuracy and reliability of all evidence that may be introduced to support a criminal prosecution.

NACDL has played a vital role in several significant historic reviews of flawed forensic science evidence. First, NACDL partnered with the Innocence Project and the FBI to review comparative bullet lead analysis (CBLA) cases, following the FBI's admission that its agents potentially gave flawed or misleading testimony in thousands of CBLA cases. In addition, NACDL currently works with the Department of Justice Office of Enforcement Operations to correct the serious injustice caused by the failure to notify thousands of defendants whose cases were affected by the findings of wrongdoing in the 1996 Office of the Inspector General Report and FBI Task Force investigation. Finally, as mentioned above, NACDL partnered with the FBI, DOJ, the Innocence Project and the law firm Winston & Strawn to review criminal cases in which the FBI conducted microscopic hair comparison testimony or lab examinations. While the Microscopic Hair Comparison Analysis Review (MHCA Review) is ongoing, the results thus far have conclusively documented the extraordinary frequency of exaggerated testimony. The FBI and Department of Justice agreed that FBI examiner testimony exceeded the limits of the science in over 90% of trials reviewed.

As a result of its participation in this project, NACDL has unique insight into the character and prevalence of testimonial overstatements made by FBI analysts. The results of the MHCA Review demonstrate the urgent need for clear, precise, and binding guidelines that govern the language used by forensic experts in both testimony and lab reports. Although not a panacea, it is NACDL's hope that if the ULTRs are developed with significant and meaningful peer review, they will finally set firm limits on the language that analysts use to convey their results to a jury in order to prevent the miscarriages of justice identified by the CBLA Review, the FBI Task Force Review, and the MHCA Review.

Given NACDL's experience reviewing testimony and lab reports in pattern-matching forensic disciplines, we offer specific comment only on the fiber, footwear and tire treads, and latent print examination ULTRs. However, much of our comment is applicable to all testimonial standards.

**I. The MHCA Review Established the Limits of Appropriate Hair of Comparison Testimony and Illustrates the Dangers of Overstated Conclusions in Similar Disciplines.**

The MHCA Review identified three common scientific overstatements made by FBI hair examiners in testimony and in lab reports. Moreover, as part of the Review, the FBI and DOJ agreed upon what the science of microscopic hair comparison supports and established appropriate testimonial limits for the discipline. The FBI and the DOJ now recognize that statements that exceed those scientific limits are not supported and are erroneous. These erroneous statements were found in over 90% of the hundreds of trials reviewed thus far in which FBI examiners testified.

The errors fall into three categories:

- **Error Type 1:** The examiner stated or implied that the evidentiary hair could be associated with a specific individual to the exclusion of all others.
- **Error Type 2:** The examiner assigned to the positive association a statistical weight or probability or provided a likelihood that the questioned hair originated from a particular source, or an opinion as to the likelihood or rareness of the positive association that could

lead the jury to believe that valid statistical weight can be assigned to a microscopic hair association.

- **Error Type 3:** The examiner cites the number of cases or hair analyses worked in the lab and the number of samples from different individuals that could not be distinguished from one another as a predictive value to bolster the conclusion that a hair belongs to a specific individual.

Pursuant to the scientific standards adopted by the FBI and DOJ for the MHCA Review, a well-trained hair examiner may only provide an opinion that an individual can be excluded as a possible source of a questioned hair, or included as a possible source at the class level. Testimony is only acceptable if it: “appropriately reflected the fact that hair comparison could not be used to make a positive identification, but that it could indicate, at the broad class level, that a contributor of a known sample could be included in a pool of people of unknown size, as a possible source of the hair evidence (without in any way giving probabilities, an opinion as to the likelihood or rareness of the positive association, or the size of the class) or that the contributor of a known sample could be excluded as a possible source of the hair evidence based on the known sample provided.” Identification is not permitted, and an opinion regarding rareness of an association would only ever be potentially appropriate with hair samples that have distinct unusual characteristics, such as certain diseases. FBI Microscopic Hair Comparison Analysis Scientific Standards (11/9/2012).

Like hair examination, latent print examination, fiber examination and footwear and tire tread examination, and to some extent glass examination, rely on the subjective judgments of well-trained examiners. All subjective pattern-matching disciplines rely on two assumptions (1) that a well-trained examiner can associate a known item with an unknown item based on visual identification of similarities and differences and (2) that that identification has value because of the uniqueness of those characteristics. Similar to hair comparison, the probative value of those disciplines is limited because the pool of items that share the characteristics identified by the examiner is unknown. In conveying that association or exclusion to a jury, examiners in unvalidated, subjective fields are similarly at risk of making the same overstatements as the FBI Hair and Fiber Unit, because assigning any statistical probability or weight to the association is not supported by the current scientific research.

## **II. The Proposed Uniform Language for Testimony and Reports for Pattern-Matching Disciplines Will Not Prevent the Kind of Erroneous Testimony Now Disavowed by the FBI and DOJ that was offered for Decades in the Discipline of Microscopic Hair Comparison.**

The proposed ULTRs for the Forensic Textile Fiber Discipline, Forensic Footwear and Tire Tread Discipline, and Latent Print Discipline only prohibit three statements: (1) Individualization, (2) Statistical Weight/Numerical Certainty, and (3) Zero Error Rate. Short of proclaiming identification to the exclusion of all others, assigning a numerical statistical weight to that association, or implying that the discipline has an error rate of zero, examiners may still generally state that they have made an identification between a known and questioned item.<sup>1</sup>

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<sup>1</sup> Each discipline differs slightly in the definition of acceptable testimony. The ULTR for Forensic Textile Fiber Discipline allows classification into natural and manufactured fibers, and does not allow for

FBI hair examiners were always prohibited from testifying that a hair came from a certain individual to the exclusion of all others.<sup>2</sup> And yet, agents frequently made statements such as “my opinion is that those hairs came from [Victim].” FBI Guidance, Error 1. Similarly, although there has never been a statistical basis for hair comparison, analysts routinely used their own experience to add numerical certainty or assign a likelihood to a positive association. For example: “However, in my experience, in looking at hundreds and hundreds of hair samples, it’s very rare for me to find two known head hair or pubic hair samples that I can’t distinguish microscopically.” FBI Guidance, Error 3. Indeed, analysts regularly used their own experience to effectively communicate an unvalidated error rate and bolster the conclusions they offered to the jury. For example: “The ten thousand known samples I have looked at over the last fifteen years, and I have been keeping track of them, during that time I have only had two occasions out of those ten thousand known samples, where I had hairs from two different people, that I was not able to distinguish from one another...” FBI Guidance, Error 3.

The draft ULTRs are simply too broad and too permissive to prevent testimonial overstatements that convey scientific certainty to the jury in disciplines that are highly subjective. In order to prevent the type of testimonial overstatements identified by the MHCA Review, the guidance provided to examiners about testimony and lab reports must be detailed and specific. Examiners must be provided with examples of acceptable and unacceptable language for testimony and reports, based on the limits of the particular science as currently known and accepted by the scientific community. Without specifically delineating unacceptable testimony, forensic experts could continue to provide the erroneous testimony that has plagued hundreds of FBI microscopic hair comparison cases. For example, several pattern and impression evidence ULTRs would still permit scientifically invalid probabilistic testimony regarding the “likelihood or rareness of the positive association” or use of experience to imply an error rate for the discipline that is not scientifically supported. Such statements would be equivalent to FBI MHCA Review Error Types 2 & 3.

Preventing and identifying scientifically unsupported forensic is critical to ensuring the fairness and integrity of the criminal justice system. This erroneous testimony has very real consequences. Hair comparison testimony now identified by the FBI as erroneous has resulted in the wrongful conviction of defendants later proven innocent by DNA testing. For example, Kirk Odom was convicted and spent 22 years in prison based in large part on flawed testimony by an FBI examiner. The examiner used his experience to provide unsupported probabilities, stating there were “only eight or ten times in the past ten years, while performing thousands of analyses” that he had not been able to distinguish between two hairs from different individuals (MHCA Error Type 3). Mr. Odom was exonerated when DNA testing proved that he was actually innocent, and that the hair the analyst “matched” to him was not his. Similarly, we now know

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“identification” only “inclusion” or “exclusion.” The ULTR for Forensic Footwear and Tire Impression also allows for many more conclusions beyond Identification, Inconclusive, or Exclusion. These distinctions provide an even greater risk that this testimony will mislead a jury by giving a statistical weight to the association.

<sup>2</sup> FBI Agents frequently gave the disclaimer that “hair is not like a fingerprint” and “hair comparison is not a means of positive identification” then proceeded to give testimony that misled the jury about the evidence and exceeded the limits of science.



that in several other cases in which a conclusive exoneration was established by DNA testing, various forms of erroneous testimony by the FBI were admitted. The draft ULTRs would not prevent analysts in other disciplines from giving the same type of flawed testimony. Establishing the correct standards is not just an intellectual exercise—it is about reducing the risk of wrongful conviction, and ensuring that there is fundamental fairness in how forensic science is used in the criminal justice system.

### **III. The DOJ Must Directly Solicit and Implement Feedback From the Scientific Community Outside of Legal and Forensic Practitioners.**

While NACDL commends the DOJ on their ongoing commitment to transparency, the release of the ULTRs on [www.regulations.gov](http://www.regulations.gov) does not constitute a peer review of those standards. As it has in the MHCA Review, the federal government must engage scientists and statisticians must continue to set the boundaries of acceptable testimony based on the accepted limits of each individual discipline. Thus, NACDL strongly encourages DOJ to seek input on the ULTRs from statisticians, including at the statistician roundtable scheduled for July. NACDL further encourages DOJ to seek input the scientific community, including from the NIST OSACs as they also work to develop standards. Moreover, it is unclear how the ULTRs will interface with the OSAC guidelines, and the President’s Council of Advisors on Science and Technology (PCAST) Report. DOJ must firmly establish the role of the ULTRs and be explicit that they will not replace guidelines set by scientists based on actual discipline validation.

In addition, NACDL asks DOJ to clarify the process by which these comments are adjudicated and how feedback from the comments will be incorporated into the development of the final ULTRs. Clarification is also requested as to the next steps in this process, including the method for releasing updated/revised versions of the ULTRs after this comments period.

NACDL thanks DOJ for its commitment to ensuring the accuracy of forensic testimony presented at criminal trials, and looks forward to continued participation in this important endeavor.

Sincerely,

  
E. G. Morris  
President, NACDL

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

Page 6, "C. Conclusions within the Forensic Toxicology Discipline" third bullet point under "Identification". Not all identifications are made by Mass Spectrometry, therefore, it is not always part of the testing procedure.

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**Document:** DOJ-OLP-2016-0012-0110

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Raymond Kelly

**Address:**

(b) (6)

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**Fax:** 702-435-1911

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## General Comment

I am writing to address one of the guidelines for forensic toxicology testimony and/or laboratory reports, specifically, one of the "Statements Not Approved For Toxicology Testimony and/or Laboratory Reports". The first statement is given as "1. An examiner may not report or state the dose of a drug or poison given based on analytical findings in post-mortem samples." I have a number of comments on this.

Under Supporting Documentation, this guideline is referenced (p.8) to a "Proposed SOFT [i.e., Society of Forensic Toxicologists] position statement (PS) on the misuse of volume of distribution calculations for drugs in postmortem cases", with a footnote to an issue of the SOFT newsletter, ToxTalk (vol. 29, no. 2, 2005). a) I have been a member of SOFT for many years and was so at the time of this proposed PS. Importantly, the PS itself is NOT an authoritative statement by the SOFT organization, since it was voted down at the annual meeting. b) That action in voting down the PS, may be regarded as more representative of the views of working forensic toxicologists at that time than the PS itself, authored by a small number of individuals without citing support for their position in the toxicology literature. c) Many forensic toxicologists, myself included, disagreed with the purported scientific justifications offered for this PS, as well as questioning the appropriateness of resolving scientific controversies by fiat when more suitable mechanisms exist. A fiat from scientists of the day would once have declared that the earth was flat. I attach two documents I authored at the time the original PS was proposed. c) Certain things are incontrovertible to me, based on first principles, that 1] there is a monotonic relationship between amount of drug or poison ingested by a living person and a resulting blood or plasma level, as modified by a multitude of pharmacological factors. To argue the converse (i.e., that there is no relationship) is absurd and would invalidate the entire science of pharmacokinetics; in fact elementary pharmacology textbooks routinely present such dose calculations. 2] There is a monotonic relationship between a person's

antemortem blood or plasma level of a drug or poison and their postmortem level, as modified, again, by a number of factors, the most prominent of which are postmortem redistribution and un-absorbed drug in the GI tract. 3] Accordingly, a dose estimate (which I prefer to call a body burden estimate) can be arrived at, provided one, instead of offering a single number, offers a range based on the uncertainties contributed by the types of factors I have mentioned. In my view, misuse of volume of distribution (VD) calculations occurs when an alleged expert calculates a single number, not allowing for the population variability of VD for the drug in the literature, the range of postmortem redistribution for the drug, what is known about the timing of the dose, genetic variability in drug metabolism, etc. Many or most of these issues obtain when pharmacological calculations are done in living persons, and yet those are still done routinely. When I have used this approach in my practice, I have characterized the results as extremely rough estimates.

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## **Attachments**

Memo063005

ltr062305

## MEMORANDUM

TO: Halle Weingarten

FROM: Ray Kelly

SUBJECT: Technical Issues with SOFT Statement

DATE: June 30, 2005

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Issue No. 1: This position statement is apparently being proposed based on a few extreme and isolated instances where the technique of making dose calculations using the volume of distribution parameter was misused in a court case. As usual, “exceptions make bad law”.

Issue No. 2: The position statement is characterized by Dr. Graham Jones on the facing page of ToxTalk (vol. 29, no. 2, p. 8) as reflecting that SOFT “*does not endorse* the use of such calculations for drugs in postmortem cases.”. However, this characterization fails to capture the one-sidedness and intensity of the position statement itself, which says the technique “lacks a valid scientific foundation in most circumstances” and that it is “unreliable”.

Issue No. 3: Several of the justifications for the position statement are questionable or wrong:

Reason #1: “ $V_d$  is almost never known for a specific individual and can vary several-fold for many drugs...” etc. True enough, but this applies equally well to use of the technique in living persons and thus suggests that all such calculations of dose (or more correctly, body burden) are inappropriate under all circumstances. Such calculations have been included in pharmacology texts for many years.

Reason #2: “The plasma concentration of a drug is not at steady state at the moment of death, and therefore the use of  $V_d$  is inherently invalid...” etc. The main argument here seems to be factually incorrect. Rather, the calculation seems to require distributional equilibrium between the blood and tissues. Furthermore, drug in the gut, which is unabsorbed, will of course not be included, causing the body burden estimate to be too low. However, this is just an example of a factor to be kept in mind so as to correctly interpret the result.

Reason #3: The plasma concentration of a drug at the time of death is rarely known with any degree of confidence, especially for those drugs that undergo postmortem redistribution...” etc.” This point largely attacks the use of the technique using central blood results, but again, could apply not just to  $V_d$  dose calculations but to any and all interpretations of postmortem toxicology results. It is widely accepted

among toxicologists that peripheral blood drug levels are to be preferred and generally may be regarded as less subject to postmortem redistribution than central blood. Once again, rather than being a specific argument against the calculation technique it suggests that interpretive postmortem forensic toxicology based upon blood results is a completely useless exercise. While this view is in fact held by a minority of forensic pathologists (S.B. Karch, et al.), it has not yet reached widespread acceptance among forensic toxicologists.

Reason #4: “The blood:plasma distribution of many drugs is unknown, and in any case may vary from one individual to another...” etc. The blood:plasma distribution is, in fact, known for many other drugs. This point also applies equally well to living persons, at least with respect to whole blood testing. In any case, the objections listed under this point are subject to experimental testing by interested persons, and such work would indeed illuminate these issues surrounding the use of pharmacokinetic calculations. However, they do not necessarily invalidate all such calculations.

Additional points are made later in the position statement about the fact that even if the body burden is calculated correctly, the time of dosing and the possibility of drug accumulation during chronic therapy needs to be kept in mind. Once again, these are interpretive issues that arise with any attempt to use pharmacokinetic information and are not unique to postmortem  $V_d$  calculations. For example, any inference that the total amount of drug in the body was consumed in a single dose would lie far outside the calculation method itself. As above, these issues highlight the necessity to make correct use of data regardless of how derived.

In summary, the proposed SOFT position statement appears to consist of assertions made with a lack of literature support and rather seem to constitute opinions on the part of (some) SOFT members. There is an implication that all toxicologists who “misuse” the  $V_d$  dose calculation would fall into all of the pitfalls listed here, including that they use the method to determine an exact quantity of drug rather than a range. On those occasions when I have used it, I have used the results, in the context of the case, to suggest whether there is “a lot or a little” drug there. I think this position statement needs a lot of reworking to avoid “throwing out the baby with the bathwater”.

June 23, 2005

Graham Jones, Ph.D., DABFT  
President, Society of Forensic  
Toxicologists

Re: SOFT Position Statement on  
Use of Volume of Distribution  
Calculations in Post-Mortem Cases

Dear Graham:

I have been a member of SOFT as well as other professional organizations in forensic toxicology for a number of years. I was a member when the organization released position papers on hair testing for drugs in the past. For much of the 1990's, I was involved in the commercial development of hair testing, and it is from that background that I write. I opposed those earlier position statements and feel the same way about the proposed position statement on volume of distribution calculations included in the latest *ToxTalk* newsletter. I am concerned about the issuance of such position statements on technical topics by scientific organizations for a number of reasons.

- 1) There is an implication that such position statements speak for all members of a profession or of a professional organization. In actual fact, however, such statements are often drafted by one or a small number of persons who, whatever their qualifications and motivations, should not presume to speak on behalf of all, or even a majority of their professional colleagues and associations.
- 2) Position statements, being by their nature brief and concise, must summarize a great deal of scientific opinion and data on a topic in a small space and without supporting documentation. Furthermore, opposing views are not represented, typically having the effect, if not the intention, of suppressing such views.
- 3) Conclusions or excerpts from such position statements tend to be used out of context by non-experts in the media and legal fields to overwhelm opposing views without the necessity to debate the science.

Dr. Jones, Page Two

- 4) At best, position statements represent a snapshot of scientific opinion at a particular point in time. With the passage of time, they may be seen to be incomplete or even misleading. Furthermore, they tend to stratify opinion within a discipline, suppress innovation, and can have a chilling effect on the development of a particular scientific discipline.
- 5) Such vehicles represent an inappropriate mechanism for resolving scientific disputes. More suitable mechanisms which have stood the test of time include publications in the peer-reviewed literature and presentations at scientific conferences. Under extreme circumstances, disciplinary actions by the ethics committees of professional organizations may be initiated. In the legal realm, various kinds of evidentiary hearings (Kelly-Frye, Daubert, etc.) are available to discourage the introduction of “junk science” into the court system. Last but not least in the legal arena, there is ample opportunity to cross-examine scientific witnesses as well as to present one’s own opposing expert.

If it is considered essential to go ahead with this position statement, perhaps it could be edited to be more consistent with the way you have characterized it on p. 8 of *ToxTalk* (“...the statement would simply indicate that SOFT as an organization *does not endorse* the use of such calculations...”), that is, less pontifical and more in the way of providing guidance. I hope the membership of SOFT will consider my comments on this matter as they decide whether to approve this position paper.

Sincerely,

Raymond C. Kelly, Ph.D., DABFT  
Forensic Toxicologist



# PUBLIC SUBMISSION

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0014

Toxicology\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0111

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Anonymous Anonymous

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## General Comment

Under "Statements Approved for Toxicology Testimony and/or Laboratory Reports"

#3 and #6. ". . . or other authoritative sources" - scientific references should not be called authoritative. As scientific knowledge is continually evolving, the description is not appropriate.

Under "Statements Not Approved for Toxicology Testimony and/or Laboratory Reports"

#2 should be better worded to clarify its difference from #4 of the approved actions.

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0002

Fiber\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0112

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Simone Gittelson

**Address:**

100 Bureau Drive

National Institute of Standards and Technology

Gaithersburg, MD, 20899-8980

**Email:** (b) (6)

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## General Comment

See attached file.

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## Attachments

Review Textile Fiber

## PROPOSED UNIFORM LANGUAGE DISCIPLINE REVIEWED: THE FORENSIC TEXTILE FIBER DISCIPLINE

**Reviewer Name:** Simone Gittelson

**Reviewer Organization:** National Institute of Standards and Technology

### ***Statements Not Approved for Use in Laboratory Reports and Expert Witness Testimony***

*Provide a summary of your assessment of the statements not approved for use, including the most important highlights from the individual criteria comments.*

- *The statements not approved for use are supported by scientific research.*

I thank the Department of Justice for putting together these guidelines and giving the community the opportunity to comment. My comment is with regard to the second point under "Statements Not Approved for Use in Laboratory Reports and Expert Witness Testimony":

"Statistical Weight

The examiner may not state or imply a statistical weight or probability to a conclusion or provide a likelihood that the questioned fiber originated from a particular source."

I'd like to draw the authors' attention to the NAS [1] report (pp. 185-186) "*Publications such as Evett et al. [2], Aitken and Taroni [3], and Evett [4] provide the essential building blocks for the proper assessment and communication of forensic findings.*" The above cited statement on the statistical weight seems contradictory to the recommendations of the NAS report, which imply that the proper assessment and communication of the results obtained in forensic science inevitably involves a statistical weight. Fundamental scientific publications supporting and providing explanations for such a statistical weight for results of forensic textile fiber comparisons include Buckleton and Evett [5], Champod and Taroni [6] and Champod and Taroni [7]. Hence, scientific research does not support a guideline forbidding a forensic scientist to state or imply a statistical weight. For this reason, I suggest removing this contradictory statement forbidding the use of a statistical weight from this document.

[1] Committee on Identifying the Needs of the Forensic Sciences Community NRC. Strengthening Forensic Science in the United States: A Path Forward. Washington, D.C.: National Academy Press; 2009.

[2] Evett IW, Jackson G, Lambert JA, McCrossan S. The Impact of the Principles of Evidence Interpretation on the Structure and Content of Statements. *Science and Justice*. 2000;40:233-9.

[3] Aitken CGG, Taroni F. *Statistics and the Evaluation of Evidence for Forensic Scientists*. 2nd ed: John Wiley & Sons, Ltd.; 2004.

[4] Evett IW. The Theory of Interpreting Scientific Transfer Evidence. *Forensic Science Progress*. 1990;4:141-79.

[5] Buckleton JS, Evett IW. Aspects of the Bayesian Interpretation of Fibre Evidence. CRSE Report 684, Home Office Forensic Science Service. 1989;1-17.

[6] Champod C, Taroni F. Interpretation of Fibres Evidence---The Bayesian Approach. In: *Forensic Examination of Fibres*, Grieve M and Robertson J, Eds. London: Taylor & Francis; 1999: pp. 379-398.

[7] Champod C, Taroni F. Bayesian Framework for the Evaluation of Fibre Transfer Evidence. *Science and Justice*. 1997;37(2):75-83.

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Document:** DOJ-OLP-2016-0012-0113

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

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## General Comment

See attached file(s)

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## Attachments

Serology\_pULTR Comments\_IP-IN\_2016-07-08

# PUBLIC SUBMISSION

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Document:** DOJ-OLP-2016-0012-0114

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Nelson Bunn

---

## General Comment

Please find attached a letter from the National District Attorneys Association (NDAA) regarding the proposed uniform language for testimony and reports. Thank you.

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## Attachments

NDAA Statement on Uniform Language for Testimony and Reporting



**National District Attorneys Association**  
99 Canal Center Plaza, Suite 330, Alexandria, Virginia 22314  
703.549.9222 / 703.836.3195 Fax  
[www.ndaa.org](http://www.ndaa.org)

July 8, 2016

United States Department of Justice  
Office of Legal Policy  
950 Pennsylvania Avenue, NW  
Washington, DC 20530

Attn: Jonathan J. Wroblewski, Principal Deputy Assistant Attorney General

Subject: Docket No. OLP 157, Proposed Uniformed Language

Dear Mr. Wroblewski,

On behalf of the National District Attorneys Association (NDAA), the largest prosecutor organization representing 2500 elected and appointed District Attorneys across the United States, as well as 40,000 assistant district attorneys, I write in support of the Proposed Uniform Language documents distributed for public comment on June 10, 2016. Specifically, these documents include the following disciplines: fiber, footwear and tire treads, general chemistry, glass, latent prints, serology and toxicology.

NDAA applauds the Department's continuing commitment to forensic science by distributing these documents to all federal laboratories as uniform language to ensure testimony and reporting is consistent with applicable scientific standards across the Department.

In the proposed documents, there are two primary sections: statements approved for the use in testimony and laboratory report language, as well as those not approved. By clearly making this distinction, it will ensure the correct language is used at trial and both the prosecution and defense will have access to these documents should there be any need for cross-examination.

Once again, NDAA thanks the Department for its hard work and constant efforts for the advancement of forensic science. Should you have questions, please do not hesitate to contact NDAA Executive Director, Kay Chopard Cohen, at <sup>(b) (6)</sup> [@ndaajustice.org](mailto:ndaa@ndaajustice.org).

Sincerely,

William Fitzpatrick  
President  
National District Attorneys Association

*To Be the Voice of America's Prosecutors and to Support Their Efforts to Protect the Rights and Safety of the People*

# PUBLIC SUBMISSION

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0006

Gen Chem\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0115

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

---

## General Comment

The public comments submitted by the Innocence Project and Innocence Network (see attached) regarding the General Chemistry pULTR document are presented in track changes to the original DOJ document. These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

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## Attachments

General Chemistry\_pULTR Comments\_IP-IN\_2016-07-08

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**Comment On:** DOJ-OLP-2016-0012-0007

Gen Chem\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0116

Comment on FR Doc # N/A

---

## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

---

## General Comment

The public comments submitted by the Innocence Project and Innocence Network (see attached) regarding the General Chemistry Supporting Documentation are presented in track changes to the original DOJ document. These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

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## Attachments

General Chemistry\_Supporting Documentation Comments\_IP-IN\_2016-07-08



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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0003

Fiber\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0117

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

---

## General Comment

The public comments submitted by the Innocence Project and Innocence Network (see attached) regarding the Forensic Textile Fiber pULTR document are presented in track changes to the original DOJ document. These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

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## Attachments

Fiber\_pULTR Comments\_IP-IN\_2016-07-08

# PUBLIC SUBMISSION

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**Comment On:** DOJ-OLP-2016-0012-0002

Fiber\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0118

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

---

## General Comment

The public comments submitted by the Innocence Project and Innocence Network (see attached) regarding the Forensic Textile Fiber pULTR document are presented in track changes to the original DOJ document. These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

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## Attachments

Fiber\_pULTR Comments\_IP-IN\_2016-07-08

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0003

Fiber\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0119

Comment on FR Doc # N/A

---

## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

---

## General Comment

The public comments submitted by the Innocence Project and Innocence Network (see attached) regarding the Forensic Textile Fiber Supporting Documentation are presented in track changes to the original DOJ document. These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

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## Attachments

Fiber\_Supporting Documentation Comments\_IP-IN\_2016-07-08

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0004

Footwear Tiretread\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0120

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

---

## General Comment

The public comments submitted by the Innocence Project and Innocence Network (see attached) regarding the Forensic Footwear and Tire Impression pULTR document are presented in track changes to the original DOJ document. These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

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## Attachments

Footwear and Tire Impressions\_pULTR Comments\_IP-IN\_2016-07-08

# PUBLIC SUBMISSION

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<b>Submission Type:</b> Web

**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0005

Footwear Tiretread\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0121

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

---

## General Comment

The public comments submitted by the Innocence Project and Innocence Network (see attached) regarding the Forensic Footwear and Tire Impression Supporting Documentation are presented in track changes to the original DOJ document. These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

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## Attachments

Footwear and Tire Impressions\_Supporting Documentation Comments\_IP-IN\_2016-07-08

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<b>Comments Due:</b> July 08, 2016
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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0008

Glass\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0122

Comment on FR Doc # N/A

---

## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

---

## General Comment

The public comments submitted by the Innocence Project and Innocence Network (see attached) regarding the Forensic Glass pULTR document are presented in track changes to the original DOJ document. These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

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## Attachments

Glass\_pULTR Comments\_IP-IN\_2016-07-08

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<b>Submission Type:</b> Web

**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0009

Glass\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0123

Comment on FR Doc # N/A

---

## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

---

## General Comment

The public comments submitted by the Innocence Project and Innocence Network (see attached) regarding the Forensic Glass Supporting Documentation are presented in track changes to the original DOJ document. These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

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## Attachments

Glass\_Supporting Documentation Comments\_IP-IN\_2016-07-08

# PUBLIC SUBMISSION

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0010

LatentPrint\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0124

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

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## General Comment

The public comments submitted by the Innocence Project and Innocence Network (see attached) regarding the Forensic Latent Print pULTR document are presented in track changes to the original DOJ document. These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

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## Attachments

Latent Print\_pULTR Comments\_IP-IN\_2016-07-08



# PUBLIC SUBMISSION

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0011

LatentPrint\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0125

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

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## General Comment

The public comments submitted by the Innocence Project and Innocence Network (see attached) regarding the Forensic Latent Print Supporting Documentation are presented in track changes to the original DOJ document. These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

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## Attachments

Latent Print\_Supporting Documentation Comments\_IP-IN\_2016-07-08

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0012

Serology\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0126

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

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## General Comment

The public comments submitted by the Innocence Project and Innocence Network (see attached) regarding the Forensic Examination of Serology pULTR document are presented in track changes to the original DOJ document. These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

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## Attachments

Serology\_pULTR Comments\_IP-IN\_2016-07-08

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0014

Toxicology\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0127

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

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## General Comment

The public comments submitted by the Innocence Project and Innocence Network (see attached) regarding the Forensic Toxicology pULTR document are presented in track changes to the original DOJ document. These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

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## Attachments

Toxicology\_pULTR Comments\_IP-IN\_2016-07-08

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0015

Toxicology\_Supporting Documentation\_05252016

**Document:** DOJ-OLP-2016-0012-0128

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

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## General Comment

The public comments submitted by the Innocence Project and Innocence Network (see attached) regarding the Forensic Toxicology Supporting Documentation are presented in track changes to the original DOJ document. These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

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## Attachments

Toxicology\_Supporting Documentation Comments\_IP-IN\_2016-07-08

**Comment ID:** 0129

**Discipline:** Overall

**Comment Category:** Language, Underlying Science

**Name/Organization:** Madeline deLone, The Innocence Project and Innocence Network

**Summary:**

1. The proposed ULTRs must be clear about what examiners cannot state or report and must limit testimony and reports to scientifically supported statements. Many of the statements approved for use are written as “The examiner may state or imply...” This phrasing is too loose, and implies that the examiner could choose or not choose to follow this proposed guideline. The proposed ULTRs should use language that clearly conveys the intended meaning and conveys the limitations that are needed to accurately interpret the findings. Particular care should be taken with statements regarding “identification” or “inclusion.” The distinction between inclusion within a broad class (e.g., a type of fiber) versus identification or a match to a specific individual within that class is an important distinction. The proposed documents focus on the conclusions drawn in testimony or in reports. Analysts must also provide the details of the methods that are needed for the reader to understand the procedures used as well as any assumptions made as part of the analysis.
2. The proposed ULTRs and Supporting Documentation should thoroughly acknowledge and discuss method subjectivity and sources of potential bias. Reports and testimony should be clear in identifying the subjective components of testing. Careful consideration should be given to the role of the analyst and how human factors, known and unknown, affect his/her ability to evaluate forensic evidence.
3. Statements must be based on sound science and must be derived from data.
4. Distinction between accuracy and repeatability. The supporting documentation should provide a clear discussion of the distinction between accuracy and repeatability, and provide this information for specific methods under specific conditions (not for a discipline in general).
5. Interpretation of presumptive (screening) tests. The use of confirmatory and presumptive testing needs to be clarified in both the proposed ULTRs and the supporting documentation for disciplines that use these categories of tests. In some instances, the ULTRs gave presumptive tests the imprimatur of confirmatory results. It is not scientifically acceptable to substitute presumptive results for confirmatory results, regardless of the number and type of presumptive tests, and is the ULTRs are inconsistent in this respect.

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0001

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Document:** DOJ-OLP-2016-0012-0129

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

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## General Comment

See attached file(s)

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## Attachments

Public Comments on ULTRs-General\_ IP-IN\_2016-07-08

**PUBLIC COMMENT ON PROPOSED  
UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS**

The Innocence Project and the Innocence Network would like to express their thanks to the Department of Justice (DOJ) for the opportunity to provide feedback on the proposed Uniform Language for Testimony and Reports (ULTRs), and the accompanying Supporting Documentation, for the first set of seven disciplines released on June 3, 2016.<sup>1</sup> The Innocence Project is a national litigation and public policy organization dedicated to exonerating wrongfully convicted people through DNA testing and reforming the criminal justice system to prevent future miscarriages of justice. The Innocence Network is an affiliation of organizations, including the Innocence Project, dedicated to providing pro bono legal and investigative services to individuals seeking to prove innocence of crimes for which they have been convicted, working to redress the causes of wrongful convictions, and supporting the exonerated after they are freed. The 58 U.S. members of the Network represent hundreds of prisoners with innocence claims in all 50 states and the District of Columbia. To date, post-conviction DNA testing has exonerated 342 innocent people<sup>2</sup> who were wrongfully convicted of crimes they did not commit. That number continues to grow.

We applaud the DOJ's commitment to ensuring the accuracy of the testimony and laboratory reports of their forensic experts, and to strengthening the practice of forensic science through the application of sound scientific principles and procedures. We have prepared a summary of general comments that apply across the seven sets of proposals, as well as more detailed comments (in separate submissions) for each individual proposal. These general comments address five issues pertaining to scientific support for recommendations and five issues regarding the clarity, comprehensiveness and consistency of the proposed ULTRs.

**Scientific support**

The following comments highlight issues pertaining to the scientific foundation for the proposed statements and issues relating to the interpretation of data.

**1. The proposed ULTRs must be clear about what examiners cannot state or report and must limit testimony and reports to scientifically supported statements.**

The FBI review of laboratory reports and testimony was pivotal in identifying erroneous language. The review identified three types of errors which are applicable to other trace

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<sup>1</sup> These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

<sup>2</sup> Since 1989, forensic DNA testing has exonerated 342 innocent people and identified 147 true perpetrators of crime. "DNA Exonerations in the United States." [InnocenceProject.org](http://www.innocenceproject.org), available at <http://www.innocenceproject.org/dna-exonerations-in-the-united-states/> (last accessed, April 28, 2016).

and pattern comparison disciplines. The proposed ULTRs recognize and address, to varying degrees, the first two types of error (stating or implying an association with a specific individual to the exclusion of all others and assigning a weight or probability regarding the likelihood or rareness of a sample coming from a particular source). However, Error Type 3 (citing the number of cases “worked in the lab and the number of samples from different individuals that could not be distinguished from one another as a predictive value to bolster the conclusion that a hair belongs to a specific individual”) is not addressed in any of the proposed ULTRs, despite its general applicability across disciplines (see point 2, *infra*, for some discussion of this problem).

It should also be noted that the three types of errors identified in the FBI hair review do not represent the full spectrum of errors that may exist in reports or statements of testimony in other disciplines; specific information regarding the interpretation of specific types of measures and analyses should also be included (see, for example, the comment regarding interpretation of presumptive tests, below). Where sources of error can be described and uncertainty measured, they should be identified, well defined, and adequately addressed in reports and testimony. If uncertainty cannot be calculated or error rates are unknown, such statements must also be included in the report. Thus, more consideration should be given to the limits of science for each of the forensic science disciplines covered by the proposed ULTRs.

**2. The proposed ULTRs and Supporting Documentation should thoroughly acknowledge and discuss method subjectivity and sources of potential bias.**

Reports and testimony should be clear in identifying the subjective components of testing. Careful consideration should be given to the role of the analyst and how human factors, known and unknown, affect his/her ability to evaluate forensic evidence. For example, the Latent Print Supporting Documentation is the only set of ULTRs and Supporting Documentation that discusses cognitive bias; this is an important issue relevant to all analyses. For evidence evaluations that are based primarily on subjective assessments rather than measurements, the purported relevance of training or experience on accuracy (i.e., correct determination) cannot be assumed, and must instead be supported by appropriately designed and conducted studies utilizing samples replicating casework that demonstrate how training and experience increase accuracy. Training and experience should not be used as de facto indications of statistical significance and analysts should never state or imply that training or experience are a basis for a level of certainty in their opinions or conclusions.

**3. Statements must be based on sound science and must be derived from data.** The strength of the scientific validation for specific disciplines or procedures referenced in the



2009 National Academy of Sciences (NAS) report, *Strengthening Forensic Science in the United States: A Path Forward*,<sup>3</sup> should be based on its findings and supplemented, where applicable, by the body of relevant research that has been conducted, published, and thoroughly evaluated subsequent to the NAS review. This new literature needs to be presented in enough detail to facilitate evaluation of its strengths, limitations, and rates of error to specifically understand the extent to which it addresses limitations or questions raised by the NAS report. Literature meeting these criteria must also be offered in support of disciplines not referenced nor treated thoroughly in the NAS report. The Supporting Documentation for some of the ULTRs (e.g., footwear and tire prints) fall considerably short of this standard.

With respect to statements in testimony or reports, where there is little or no empirical data pertaining to a specific point, analysts should explicitly state that the research has not been done or is not conclusive. Examples of studies that may not be available include data pertaining to the probability of the occurrence of a set of observations, and data pertaining to the accuracy of a measurement. Analysts should not rely on disclaimers or caveating language to cure inappropriate testimony as each statement must be tied to a sound scientific basis.

4. **Distinction between accuracy and repeatability.** The supporting documentation should provide a clear discussion of the distinction between accuracy and repeatability, and provide this information for specific methods under specific conditions (not for a discipline in general). Accuracy (or validity) concerns the difference between the observed measurement and the true value of what is being measured; repeatability (or precision) concerns the variability in the measure you would see if you repeated the examination multiple times. These are two separate concepts, each of which must be considered in a discussion of error. The discussion of error must also consider the specific conditions or application of a method that is under evaluation.
5. **Interpretation of presumptive (screening) tests.** The use of confirmatory and presumptive testing needs to be clarified in both the proposed ULTRs and the supporting documentation for disciplines that use these categories of tests. In some instances, the ULTRs gave presumptive tests the imprimatur of confirmatory results. It is not scientifically acceptable to substitute presumptive results for confirmatory results, regardless of the number and type of presumptive tests, and is the ULTRs are inconsistent in this respect. The SOFT/AAFS Forensic Toxicology Laboratory Guidelines are cited in two ULTR background documents in support of using presumptive tests in tandem to

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<sup>3</sup> National Research Council. *Strengthening Forensic Science in the United States: A Path Forward*. Washington, DC: The National Academies Press, 2009. doi:10.17226/12589.

offer a confirmatory result. However, SWGDAM clearly states that a “[p]resumptive test is a screening test that indicates that a biological fluid of interest may be present on an item of evidence but the result does not constitute the identification of that biological fluid. A negative presumptive test indicates that a biological fluid of interest was not detected.”<sup>4</sup> This definition makes it clear that presumptive tests - either a single test or a combination of two or more presumptive tests - cannot produce confirmatory results.

### **Clarity, comprehensiveness, and consistency**

Some of the following points were touched upon in the previous section, but are more fully addressed below.

- 1. The proposed ULTRs should be more explicit with respect to the statements that can and cannot be made.** Many of the statements approved for use are written as “The examiner may state or imply...” This phrasing is too loose, and implies that the examiner could choose or not choose to follow this proposed guideline. In addition, the word “imply” could be problematic in that it is vague and is open to interpretation. The proposals should explicitly note what an examiner should say and what an examiner is prohibited from stating in testimony or reports.
- 2. The proposed ULTRs should use language that clearly conveys the intended meaning and conveys the limitations that are needed to accurately interpret the findings.**

The Recommendation to the Attorney General from the National Commission on Forensic Science (NCFS) for a National Code of Professional Responsibility for Forensic Science and Forensic Medicine Service Providers includes the following recommendation: “Prepare reports and testify using clear and straightforward terminology, clearly distinguishing data from interpretations, opinions, and conclusions and disclosing known limitations that are necessary to understand the significance of the findings.”<sup>5</sup> The ULTRs can be improved by application of this recommendation.

The ULTRs can serve as a directive that examiners must abide by when reporting or testifying about forensic evidence. During testimony, these standardized terms will be practical tools the analyst can use to address questions that may seek to lead them outside the scope of language appropriate for the description of their conclusions. The role of the

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<sup>4</sup> SWGDAM.org, “Scientific Working Group on DNA Analysis Methods Guidelines for the Collection and Serological Examination of Biological Evidence” (Approved 1/15/2015), available at [http://media.wix.com/ugd/4344b0\\_bce915901bb14b9cb36049df6a8441e2.pdf](http://media.wix.com/ugd/4344b0_bce915901bb14b9cb36049df6a8441e2.pdf) (last accessed, July 6, 2016), p.16.

<sup>5</sup> Justice.gov, “Recommendation to the Attorney General National Code of Professional Responsibility for Forensic Science and Forensic Medicine Service Providers,” available at <https://www.justice.gov/ncfs/file/839711/download> (last accessed, July 5, 2016), #12.

forensic practitioner is to relay difficult or complex concepts to laypeople in a way that facilitates an accurate understanding of this material. Thus, reports should provide the level of detail needed for individuals outside of the forensic science community to understand the procedures involved in testing and how conclusions from the information are drawn; this information includes definitions of terms used by practitioners (e.g., in a glossary or appendix), and information needed for the interpretation of results (e.g., implications of the sensitivity of a test). Court room testimony must fully and accurately reinforce the information conveyed in reports and further assist judges, lawyers, and juries in making well-informed decisions about forensic evidence.

In order to achieve those ends, the ULTRs must do better at disclosing known limitations without including language that obscures their meaning or significance. As written currently, there are a number of problematic instances in the proposed ULTRs where language that properly contextualizes the meaning of the evidence is followed by language that masks or even counters the first statement. For example, the fiber ULTR provides the limiting statement for an inclusion that “a fiber association is not a means of positive identification and the number of possible sources for a specific fiber is unknown.” But this limitation is followed immediately by “However, due to the variability in manufacturing, dyeing, and consumer use, one would not expect to encounter a fiber selected at random to be consistent with a particular source.” Similar to Type I errors identified in the FBI hair comparison audit, this latter statement suggests individualization, fails to adequately convey the limitations of the technique, and should be deleted.

Lastly, measures must be taken to clearly convey when an analyst is providing an opinion regarding the interpretation of what the data means as opposed to giving a statement of an objective measurement. Some of the ULTRs propose language that specifically denote when an opinion was being given, while others did not. The presentation of the testimony could potentially bring out this point, but there should be consistency across the proposed ULTRs in the designation of opinions.

**3. Particular care should be taken with statements regarding “identification” or “inclusion.”**

The distinction between inclusion within a broad class (e.g., a type of fiber) versus identification or a match to a specific individual within that class is an important distinction. It is also important to convey that the size of the class may be quite large or may be unknown. In order for laypersons to appropriately weigh the probative value of an inclusion, these points should be explicitly made in the ULTRs for any discipline (e.g.,

a trace/pattern comparison) for which a representative database is not available or the frequency of features has not been empirically established.

**4. Reports should provide details of the methods involved and the scientific support for these methods.**

The proposed documents focus on the conclusions drawn in testimony or in reports. Analysts must also provide the details of the methods that are needed for the reader to understand the procedures used as well as any assumptions made as part of the analysis. When multiple tests or analytic techniques are available within a discipline, the testimony and reports should clearly state what methods were used and provide the relevant information regarding limitations and assumptions for each method. Guidance regarding the content of reports can be found in NCFS Views document on “Pretrial Discovery of Forensic Materials” (approved August 11, 2015).<sup>6</sup>

**5. Consistency in terminology.**

The DOJ has begun the Forensic Science Disciplines Review, which will be a large and complex process involving numerous disciplines. There is considerable variation in the terminology and statements used to date. Standardizing terminology is a challenge to the entire forensic science field, and the proposed ULTRs provide DOJ with the opportunity to lead efforts in this area. The language used to express conclusions across the seven ULTRs should be made uniform unless there is a compelling reason for divergent language. For example, there are seven categories of statements in the Footwear and Tire Impression ULTR (Identification, Probably Made, Could Have Made, Could Not Be Determined, Indications Did Not Make, Elimination, and Unsuitable), two categories in the Textile/Fiber ULTR (Inclusion and Exclusion), and three categories in the Latent Print ULTR (Identification, Inconclusive, and Exclusion). Unless the body of research in a specific discipline indicates that a specific set of categorical conclusions needs to be utilized, standardizing the number of categories (where applicable) and terms used for categories would facilitate communication, understanding, and could serve as a model to other state/local forensic science service providers.

### **Concluding Considerations**

We understand that experts testifying in a courtroom are usually limited to responding to the questions that are asked. For this reason, it is essential that laboratory reports are comprehensive and provide full documentation of the testing that was done. It is also essential for an analyst to

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<sup>6</sup> Justice.gov, “Pretrial Discovery of Forensic Materials,” available at <https://www.justice.gov/ncfs/file/786611/download> (last accessed, July 6, 2016); the Recommendations document on this topic will not be up for a vote at the National Commission on Forensic Science until the September meeting.

clearly convey the full results of the analyses, explanations of the methods involved in testing, and the sources of error, limitations, and uncertainty related to the practice and methods used in forensic disciplines in courtroom testimony. This responsibility is also shared by others, as judges and attorneys have an influential role in ensuring the accurate, comprehensive, and understandable communication of scientific testimony. The ULTRs provide DOJ with the opportunity to lead in efforts to accomplish this important goal.

Several of the points we raise concern significant limitations of the proposed ULTRs in their current form. Because of the importance of the ULTRs, the revised ULTRs (and Supporting Documentation) should be reviewed again by an independent group (i.e., people who are not involved in their development) with broad expertise, including evaluation and assessment and evaluation methodology.

Lastly, we applaud the DOJ for making the ULTRs and Supporting Documentation available for public review. We hope that this level of transparency will lead to future availability of these documents once they have been finalized.

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**Document:** DOJ-OLP-2016-0012-0130

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Madeline deLone

**Organization:** Innocence Project and Innocence Network

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## General Comment

The public comments submitted by the Innocence Project and Innocence Network (see attached) regarding the Forensic Serology Supporting Documentation are presented in track changes to the original DOJ document. These public comments are provided by the Innocence Project and the Innocence Network in the context of this process. No comment in isolation necessarily represents an official position of the Innocence Project, Innocence Network, or any member organization.

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## Attachments

Serology\_Supporting Documentation Comments\_IP-IN\_2016-07-08

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Serology\_pULTR\_05252016

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Comment on FR Doc # N/A

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## Submitter Information

**Name:** Jody Wolf

**Address:** United States,

**Email:** (b) (6)

**Organization:** American Society of Crime Laboratory Directors

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## General Comment

See attached file(s)

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## Attachments

ULTR for the Forensic Examination of Serology\_FINAL



**AMERICAN SOCIETY OF  
CRIME LABORATORY DIRECTORS, INC.**

**139 A Technology Drive Garner, NC 27529**

**ASCLD BOARD OF  
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**ASCLD STAFF**

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**Jean Stover**  
Executive Director

**Ramona Robertson**  
Administrative Assistant

June 22, 2016

Attn: Uniform Language for Testimony and Reporting for the Forensic Examination of Serology

The American Society of Crime Laboratory Directors represents more than 600 members of crime laboratory directors and forensic science managers dedicated to providing excellence in forensic science through leadership and innovation. The membership represents both private and public institutions from all 50 states in the U.S. and eighteen countries from across the globe. Our mission is to promote the effectiveness of crime laboratory leaders throughout the world by facilitating communication among members, sharing critical information, providing relevant training, promoting crime laboratory accreditation, and encouraging scientific and managerial excellence in the global forensic science community.

ASCLD is dedicated to advancing forensic science through a multitude of initiatives including partnering and offering comments to the Department of Justice. The forensic laboratories of the DOJ share the same goals as their state and local counterparts in constantly advancing forensic science. What transpires at the DOJ laboratories has significant implications for the entire criminal justice community. As a result, the ASCLD Board of Directors offers the following comments, recommendations, and impact statements for consideration by the DOJ pertaining to the document "Proposed Uniform Language for Testimony and Reports for the Forensic Examination of Serology".

ASCLD remains ready to be a continuing resource to assist the Department of Justice in the development of these important work products for the forensic science community so that a broader based acceptance and implementation of these products may be realized.

Regards,

ASCLD Board of Directors





# The American Society of Crime Laboratory Directors

**"Excellence Through Leadership in Forensic Science Management"**

## ASCLD Board Comments

The ASCLD Board of Directors supports the development of uniform language for testimony and reports for all forensic science disciplines utilizing a consensus development, review, and approval process.

The current ULTRs are based on work conducted by the FBI in the creation of the ASSTRs. The ASCLD Board of Directors recognizes and applauds the work and efforts of the professionals within the FBI and the DOJ in developing the ULTRs. However, this effort is primarily the result of one forensic science service provider and must be reviewed in a structured consensus driven manner led by industry experts before they become a requirement for the forensic science community and the criminal justice system.

The ASCLD Board of Directors respectfully requests the UTLRs be submitted to the appropriate forensic Standards Development Organization (SDO) such as the AAFS Standards Board (ASB), ASTM, or another equivalent forensic SDO. Until such time as these can be vetted through an organization such as these, the ASCLD Board of Directors recommends the ULTRs be published as recommended guidelines only after the transparent adjudication of the public comments provided during this initial public offering of the UTLRs. The ASCLD Board of Directors also submits the following modifications to language as potential improvements to the proposed wording:

### Statements Approved for Use:

The ASCLD Board of Directors generally supports the statements with some modification needed:

1. No changes.
2. No changes.
3. No changes.
4. No changes.
5. No changes.
6. No changes.
7. This statement should include Inconclusive Results as the same limitations can result in a finding of Negative or Inconclusive.



# The American Society of Crime Laboratory Directors

**"Excellence Through Leadership in Forensic Science Management"**

## **Statements Not Approved for Use:**

The ASCLD Board of Directors supports the statements that are not approved.

## **Supporting Documentation:**

The ASCLD Board of Directors recommends that a note be added to the supporting documentation indicating that the list of tests is not exhaustive of all tests that could be used to detect and identify biological materials commonly encountered during serological testing. Other tests do exist, outside of those identified in the supporting documentation discussion, which are also acceptable for serological testing of bodily fluids.

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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0004

Footwear Tiretread\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0132

Comment on FR Doc # N/A

---

## Submitter Information

**Name:** Jody Wolf

**Address:** United States,

**Email:** (b) (6)

**Organization:** American Society of Crime Laboratory Directors

---

## General Comment

See attached file(s)

---

## Attachments

ULTR Footwear and Tire\_FINAL



**AMERICAN SOCIETY OF  
CRIME LABORATORY DIRECTORS, INC.**

**139 A Technology Drive Garner, NC 27529**

June 27, 2016

**ASCLD BOARD OF  
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**Christian Westring**  
NMS Labs

**ASCLD STAFF**

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**Jean Stover, Executive  
Director**

**Ramona Robertson,  
Administrative Assistant**

Attn: Proposed Uniform Language for Testimony and Reports for the  
Forensic Footwear and Tire Impression Discipline

The American Society of Crime Laboratory Directors represents more than 600 members of crime laboratory directors and forensic science managers dedicated to providing excellence in forensic science through leadership and innovation. The membership represents both private and public institutions from all 50 states in the U.S. and eighteen countries from across the globe. Our mission is to promote the effectiveness of crime laboratory leaders throughout the world by facilitating communication among members, sharing critical information, providing relevant training, promoting crime laboratory accreditation, and encouraging scientific and managerial excellence in the global forensic science community.

ASCLD is dedicated to advancing forensic science through a multitude of initiatives including partnering and offering comments to the Department of Justice. The forensic laboratories of the DOJ share the same goals as their state and local counterparts in constantly advancing forensic science. What transpires at the DOJ laboratories has significant implications for the entire criminal justice community. As a result, the ASCLD Board of Directors offers the following comments, recommendations, and impact statements for consideration by the DOJ pertaining to the document "*Proposed Uniform Language for Testimony and Reports for the Forensic Footwear and Tire Impression Discipline*".

ASCLD remains ready to be a continuing resource to assist the Commission and the Department of Justice in the development of these important work products for the forensic science community so that a broader based acceptance and implementation of these products may be realized.

Regards,  
ASCLD Board of Directors



# The American Society of Crime Laboratory Directors

**"Excellence Through Leadership in Forensic Science Management"**

## ASCLD Board Comments

The ASCLD Board of Directors supports the development of uniform language for testimony and reports for all forensic science disciplines utilizing a consensus development, review, and approval process.

The current ULTRs are based on work conducted by the FBI in the creation of the ASSTRs. The ASCLD Board of Directors recognizes and applauds the work and efforts of the professionals within the FBI and the DOJ in developing the ULTRs. However, this effort is primarily the result of one forensic science service provider and must be reviewed in a structured consensus driven manner led by industry experts before they become a requirement for the forensic science community and the criminal justice system.

The ASCLD Board of Directors respectfully requests the UTLRs be submitted to the appropriate forensic Standards Development Organization (SDO) such as the AAFS Standards Board (ASB), ASTM, or another equivalent forensic SDO. Until such time as these can be vetted through an organization such as these, the ASCLD Board of Directors recommends the ULTRs be published as recommended guidelines only after the transparent adjudication of the public comments provided during this initial public offering of the UTLRs. The ASCLD Board of directors also submits the following modifications to language as potential improvements to the proposed wording:

Propose the addition of the following phrase or one similar to the following in the category "Could Have Made":

"As shoes/tires are mass manufactured, in the event that only class characteristics are present, it cannot be stated that a particular known shoe/tire is the source of the questioned impression to the exclusion of all other sources with the same physical characteristics."

# PUBLIC SUBMISSION

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<b>Submission Type:</b> Web

**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0006

Gen Chem\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0133

Comment on FR Doc # N/A

---

## Submitter Information

**Name:** Jody Wolf

**Address:** United States,

**Email:** (b) (6)

**Organization:** American Society of Crime Laboratory Directors

---

## General Comment

See attached file(s)

---

## Attachments

ULTR Chemistry\_FINAL



**AMERICAN SOCIETY OF  
CRIME LABORATORY DIRECTORS, INC.**

**139 A Technology Drive Garner, NC 27529**

June 27, 2016

**ASCLD BOARD OF  
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**Jeremy Triplett, President**  
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Forensic Science Service

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Jefferson Parrish Sheriff's  
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**Christian Westring**  
NMS Labs

**ASCLD STAFF**

---

**Jean Stover, Executive  
Director**

**Ramona Robertson,  
Administrative Assistant**

Attn: Proposed Uniform Language for Testimony and Reports for the  
General Chemistry Discipline

The American Society of Crime Laboratory Directors represents more than 600 members of crime laboratory directors and forensic science managers dedicated to providing excellence in forensic science through leadership and innovation. The membership represents both private and public institutions from all 50 states in the U.S. and eighteen countries from across the globe. Our mission is to promote the effectiveness of crime laboratory leaders throughout the world by facilitating communication among members, sharing critical information, providing relevant training, promoting crime laboratory accreditation, and encouraging scientific and managerial excellence in the global forensic science community.

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ASCLD remains ready to be a continuing resource to assist the Commission and the Department of Justice in the development of these important work products for the forensic science community so that a broader based acceptance and implementation of these products may be realized.

Regards,

ASCLD Board of Directors



# The American Society of Crime Laboratory Directors

**"Excellence Through Leadership in Forensic Science Management"**

## ASCLD Board Comments

The ASCLD Board of Directors supports the development of uniform language for testimony and reports for all forensic science disciplines utilizing a consensus development, review, and approval process.

The current ULTRs are based on work conducted by the FBI in the creation of the ASSTRs. The ASCLD Board of Directors recognizes and applauds the work and efforts of the professionals within the FBI and the DOJ in developing the ULTRs. However, this effort is primarily the result of one forensic science service provider and must be reviewed in a structured consensus driven manner led by industry experts before they become a requirement for the forensic science community and the criminal justice system.

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### **Statements Approved for Use:**

The ASCLD Board of Directors generally supports the statements:

1. No changes.
2. No changes.
3. No changes.
4. No changes.
5. No changes.
6. No changes.
7. No changes.
8. No changes.





# The American Society of Crime Laboratory Directors

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9. No changes.

## **Statements Not Approved for Use:**

The ASCLD Board of Directors supports the statements that are not approved.

# PUBLIC SUBMISSION

<b>As of:</b> July 12, 2016
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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0014

Toxicology\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0134

Comment on FR Doc # N/A

---

## Submitter Information

**Name:** Jody Wolf

**Address:** United States,

**Email:** (b) (6)

**Organization:** American Society of Crime Laboratory Directors

---

## General Comment

See attached file(s)

---

## Attachments

testifying and reports tox\_FINAL



**AMERICAN SOCIETY OF  
CRIME LABORATORY DIRECTORS, INC.**

**139 A Technology Drive Garner, NC 27529**

**ASCLD BOARD OF  
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**Jean Stover, Executive  
Director**

**Ramona Robertson,  
Administrative Assistant**

June 20, 2016

Attn: Proposed Uniform Language for Testimony and Reports for the  
Forensic Toxicology Discipline

The American Society of Crime Laboratory Directors represents more than 600 members of crime laboratory directors and forensic science managers dedicated to providing excellence in forensic science through leadership and innovation. The membership represents both private and public institutions from all 50 states in the U.S. and eighteen countries from across the globe. Our mission is to promote the effectiveness of crime laboratory leaders throughout the world by facilitating communication among members, sharing critical information, providing relevant training, promoting crime laboratory accreditation, and encouraging scientific and managerial excellence in the global forensic science community.

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ASCLD remains ready to be a continuing resource to assist the Department of Justice in the development of these important work products for the forensic science community so that a broader based acceptance and implementation of these products may be realized.

Regards,



# The American Society of Crime Laboratory Directors

**"Excellence Through Leadership in Forensic Science Management"**

ASCLD Board of Directors

## ASCLD Board Comments

The ASCLD Board of Directors supports the development of uniform language for testimony and reports for all forensic science disciplines utilizing a consensus development, review, and approval process.

The current ULTRs are based on work conducted by the FBI in the creation of the ASSTRs. The ASCLD Board of Directors recognizes and applauds the work and efforts of the professionals within the FBI and the DOJ in developing the ULTRs. However, this effort is primarily the result of one forensic science service provider and must be reviewed in a structured consensus driven manner led by industry experts before they become a requirement for the forensic science community and the criminal justice system.

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### Statements Approved for Use:

The ASCLD Board of Directors generally supports the statements with some clarification needed:

1. No changes
2. No Changes
3. Who will be responsible for determining the "other authoritative sources" that can be used by the examiners?



# The American Society of Crime Laboratory Directors

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4. The examiner should not need the facts of the case to render an opinion on the average human regarding effects. It is agreed that the opinion should be based on current published studies, and/or examiner's training in the fields of pharmacology, physiology, pathology, clinical chemistry, and/or toxicology.
5. No comment
6. Again, what source is going to be acceptable in which to report this information?
7. No comment
8. Not approved - This statement should be eliminated and not allowed. Too many assumptions have to be made in order to state these results.
9. No comment
10. No approved - This statement should be eliminated and not allowed. Too many assumptions have to be made in order to state these results.

## Statements Not Approved:

The ASCLD Board of Directors generally supports the statements that are not approved. However, it is not clear if alcohol is defined in this document as a drug. If alcohol is defined as a drug then Statement #4 not approved should be carefully considered. In some states per se urine alcohol analysis is permissible. Labs that perform such analysis should provide qualifying language regarding the validity of such a result, but if a jurisdiction has a per se law then the laboratory may be asked to perform the testing and provide expert testimony.

## General:

In general, the document offers good, practical statements that can be used by a forensic toxicologist. More of the statements apply to testimony and we suggest that the document separate out testimonial statements from written report statements.

The terms drug, drug metabolite, or poison should be defined in the document and alcohol should likely be added to the definition of a "drug" for clarity in this document. Many labs work alcohol cases in the toxicology discipline.

# PUBLIC SUBMISSION

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<b>Submission Type:</b> Web

**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0010

LatentPrint\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0135

Comment on FR Doc # N/A

---

## Submitter Information

**Name:** Jody Wolf

**Address:** United States,

**Email:** (b) (6)

**Organization:** American Society of Crime Laboratory Directors

---

## General Comment

See attached file(s)

---

## Attachments

DOJ ULTR Latent Prints\_FINAL



**AMERICAN SOCIETY OF  
CRIME LABORATORY DIRECTORS, INC.**

**139 A Technology Drive Garner, NC 27529**

June 20, 2016

**ASCLD BOARD OF  
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**Jeremy Triplett, President**  
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**Christian Westring**  
NMS Labs

**ASCLD STAFF**

---

**Jean Stover, Executive  
Director**

**Ramona Robertson,  
Administrative Assistant**

Attn: Proposed Uniform Language for Testimony and Reports for the  
Forensic Latent Print Discipline

The American Society of Crime Laboratory Directors represents more than 600 members of crime laboratory directors and forensic science managers dedicated to providing excellence in forensic science through leadership and innovation. The membership represents both private and public institutions from all 50 states in the U.S. and eighteen countries from across the globe. Our mission is to promote the effectiveness of crime laboratory leaders throughout the world by facilitating communication among members, sharing critical information, providing relevant training, promoting crime laboratory accreditation, and encouraging scientific and managerial excellence in the global forensic science community.

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ASCLD remains ready to be a continuing resource to assist the Department of Justice in the development of these important work products for the forensic science community so that a broader based acceptance and implementation of these products may be realized.

Regards,  
ASCLD Board of Directors



# The American Society of Crime Laboratory Directors

"Excellence Through Leadership in Forensic Science Management"

## ASCLD Board Comments

The ASCLD Board of Directors supports the development of uniform language for testimony and reports for all forensic science disciplines utilizing a consensus development, review, and approval process.

The current ULTRs are based on work conducted by the FBI in the creation of the ASSTRs. The ASCLD Board of Directors recognizes and applauds the work and efforts of the professionals within the FBI and the DOJ in developing the ULTRs. However, this effort is primarily the result of one forensic science service provider and must be reviewed in a structured consensus driven manner led by industry experts before they become a requirement for the forensic science community and the criminal justice system.

The ASCLD Board of Directors respectfully requests the UTLRs be submitted to the appropriate forensic Standards Development Organization (SDO) such as the AAFS Standards Board (ASB), ASTM, or another equivalent forensic SDO. Until such time as these can be vetted through an organization such as these, the ASCLD Board of Directors recommends the ULTRs be published as recommended guidelines only after the transparent adjudication of the public comments provided during this initial public offering of the UTLRs. The ASCLD Board of directors also submits the following modifications to language as potential improvements to the proposed wording:

### **Statements approved for use**

#### **A. Identification**

By being allowed to state or imply *"...that the examiner would not expect to see that same arrangement of features repeated in another source."*, how does the examiner reconcile the restriction of *"...it is inappropriate for an examiner to state or imply that an identification conclusion would absolutely exclude the possibility that another source could have left a similar looking latent print."*? The examiner's authorized statement seems to be implying an expected exclusion to any other source.

#### **B. Inconclusive**





# The American Society of Crime Laboratory Directors

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For Inconclusive findings, it is generally advisable to state or relay the reason it is inconclusive. It would complement this authorized language to make sure this documents states that the reason for an inconclusive also be given in both reports and testimony.

## **C. Exclusion**

No comments

## **Statements not approved for use**

### **A. Exclusion of all others**

No comments other than what was included in section A – Identification. There seems to be circular logic.

### **B. Absolute or Numerical Certainty**

No comments

### **C. Zero Error Rate**

No comments

In general, this document does not touch upon the close relation of ten prints to latent prints. While it may be possible for a latent print analyst, or unit, to never write reports or testify to ten prints, the reality is that many are called upon in some facet of their casework to do this. Most commonly, this occurs on the witness stand. The same issues that apply to latent prints also apply to ten prints and ten prints should be included in this document.

# PUBLIC SUBMISSION

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Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0002

Fiber\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0136

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Jody Wolf

**Address:** United States,

**Email:** (b) (6)

**Organization:** American Society of Crime Laboratory Directors

---

## General Comment

See attached file(s)

---

## Attachments

ULTR Fiber\_FINAL



**AMERICAN SOCIETY OF  
CRIME LABORATORY DIRECTORS, INC.**

**139 A Technology Drive Garner, NC 27529**

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**Christian Westring**  
NMS Labs

**ASCLD STAFF**

---

**Jean Stover, Executive  
Director**

**Ramona Robertson,  
Administrative Assistant**

June 27, 2016

Attn: Proposed Uniform Language for Testimony and Reports for the  
Forensic Textile Fiber Discipline

The American Society of Crime Laboratory Directors represents more than 600 members of crime laboratory directors and forensic science managers dedicated to providing excellence in forensic science through leadership and innovation. The membership represents both private and public institutions from all 50 states in the U.S. and eighteen countries from across the globe. Our mission is to promote the effectiveness of crime laboratory leaders throughout the world by facilitating communication among members, sharing critical information, providing relevant training, promoting crime laboratory accreditation, and encouraging scientific and managerial excellence in the global forensic science community.

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ASCLD remains ready to be a continuing resource to assist the Commission and the Department of Justice in the development of these important work products for the forensic science community so that a broader based acceptance and implementation of these products may be realized.

Regards,

Phone: 919.773.2044 | Fax: 919.861.9930 | Website: [www.asclcd.org](http://www.asclcd.org)

514

Deliberative & Pre-Decisional



# The American Society of Crime Laboratory Directors

**"Excellence Through Leadership in Forensic Science Management"**

ASCLD Board of Directors

## ASCLD Board Comments

The ASCLD Board of Directors supports the development of uniform language for testimony and reports for all forensic science disciplines utilizing a consensus development, review, and approval process.

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“As textile fibers are mass manufactured, it cannot be stated that a particular textile fiber originated from a particular source to the exclusion of all other sources with the same physical characteristics.”

# PUBLIC SUBMISSION

<b>As of:</b> July 12, 2016
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**Docket:** DOJ-OLP-2016-0012

Notice of Public Comment Period on Proposed Uniform Language for Testimony and Reports

**Comment On:** DOJ-OLP-2016-0012-0008

Glass\_pULTR\_05252016

**Document:** DOJ-OLP-2016-0012-0137

Comment on FR Doc # N/A

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## Submitter Information

**Name:** Jody Wolf

**Address:** United States,

**Email:** (b) (6)

**Organization:** American Society of Crime Laboratory Directors

---

## General Comment

See attached file(s)

---

## Attachments

ULTR Glass RW\_FINAL



**AMERICAN SOCIETY OF  
CRIME LABORATORY DIRECTORS, INC.**

**139 A Technology Drive Garner, NC 27529**

June 27, 2016

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NMS Labs

**ASCLD STAFF**

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**Jean Stover, Executive  
Director**

**Ramona Robertson,  
Administrative Assistant**

Attn: Proposed Uniform Language for Testimony and Reports for the  
Forensic Glass Discipline

The American Society of Crime Laboratory Directors represents more than 600 members of crime laboratory directors and forensic science managers dedicated to providing excellence in forensic science through leadership and innovation. The membership represents both private and public institutions from all 50 states in the U.S. and eighteen countries from across the globe. Our mission is to promote the effectiveness of crime laboratory leaders throughout the world by facilitating communication among members, sharing critical information, providing relevant training, promoting crime laboratory accreditation, and encouraging scientific and managerial excellence in the global forensic science community.

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ASCLD remains ready to be a continuing resource to assist the Commission and the Department of Justice in the development of these important work products for the forensic science community so that a broader based acceptance and implementation of these products may be realized.

Regards,

ASCLD Board of Directors

Phone: 919.773.2044 | Fax: 919.861.9930 | Website: [www.asclcd.org](http://www.asclcd.org)

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Deliberative & Pre-Decisional



# The American Society of Crime Laboratory Directors

**"Excellence Through Leadership in Forensic Science Management"**

## ASCLD Board Comments

The ASCLD Board of Directors supports the development of uniform language for testimony and reports for all forensic science disciplines utilizing a consensus development, review, and approval process.

The current ULTRs are based on work conducted by the FBI in the creation of the ASSTRs. The ASCLD Board of Directors recognizes and applauds the work and efforts of the professionals within the FBI and the DOJ in developing the ULTRs. However, this effort is primarily the result of one forensic science service provider and must be reviewed in a structured consensus driven manner led by industry experts before they become a requirement for the forensic science community and the criminal justice system.

The ASCLD Board of Directors respectfully requests the UTLRs be submitted to the appropriate forensic Standards Development Organization (SDO) such as the AAFS Standards Board (ASB), ASTM, or another equivalent forensic SDO. Until such time as these can be vetted through an organization such as these, the ASCLD Board of Directors recommends the ULTRs be published as recommended guidelines only after the transparent adjudication of the public comments provided during this initial public offering of the UTLRs. The ASCLD Board of directors also submits the following modifications to language as potential improvements to the proposed wording:

“As glass is mass manufactured, absent pieces of glass that fit together, it cannot be stated that a particular piece of glass originated from a particular source to the exclusion of all other sources with the same physical characteristics.”

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## Submitter Information

**Name:** Simone Gittelson

**Address:**

100 Bureau Drive

National Institute of Standards and Technology

Gaithersburg, MD, 20899-8980

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## General Comment

See attached file.

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## Attachments

Review Latent Print



## PROPOSED UNIFORM LANGUAGE DISCIPLINE REVIEWED: THE FORENSIC LATENT PRINT DISCIPLINE

**Reviewer Name:** Simone Gittelson

**Reviewer Organization:** National Institute of Standards and Technology

### ***Statements Approved for Use in Laboratory Reports and Expert Witness Testimony***

*Provide a summary of your assessment of the statements approved for use, including the most important highlights from the individual criteria comments.*

- *The statements approved for use are supported by scientific research.*

I thank the Department of Justice for putting together these guidelines and giving the community the opportunity to comment. My comment is with regard to the term “Identification”.

When an examiner reaches a conclusion of “identification”, without having compared the questioned impression with the entire population of prints in the population of potential sources, the examiner is making a *decision* (e.g., Phillips et al. [1], Biedermann et al. [2,3]). Decision theory prescribes how to make a rational decision [4]: a rational decision is one that maximizes the expected utility (or minimizes the expected loss). For a fingerprint examiner to make a rational decision, he/she needs:

1. the probability that the finger of interest made the impression
2. the utility (or loss) values of correctly identifying the questioned impression, correctly not identifying the questioned impression, incorrectly identifying the questioned impression and incorrectly not identifying the questioned impression

The first is a posterior probability, that is,  $\Pr(H_p | E, I)$ , where  $H_p$  is the proposition that the finger of interest made the impression,  $E$  represents the results of the fingerprint comparison, and  $I$  the other case information necessary to assign this value. Note that assessing this probability requires knowledge of the fingerprint evidence as well as knowledge of all of the other evidence and circumstantial information in the case. The problem with having a fingerprint examiner assign this probability is that giving the examiner information on the case circumstances and other evidential findings has been shown to bias the examiner’s conclusions regarding the fingerprint comparison [5]. Instead, scientific research recommends the forensic scientist to assess  $\Pr(E | H_p, I)$  and

$\Pr(E | H_d, I)$ , where  $H_d$  is the proposition that the finger of interest did not make the impression.

The second is a utility (or loss) function over the space of possible consequences. This function represents the relative gain (or loss) of each possible correct and incorrect conclusion to society. Defining such a function is beyond the expertise of a fingerprint examiner. Guidance from other actors in the judicial system and society is required.

Hence there is a logical framework for making rational decisions of “identification”. Yet, several of the ingredients required are beyond the scope of knowledge of the fingerprint examiner. If this document’s recommendation is that the examiner should make this decision, then additional, case-specific guidance is required on assigning values to: (1) the prior probabilities of  $H_p$  and  $H_d$ , that is

$\Pr(H_p | I)$  and  $\Pr(H_d | I)$  , and (2) the utility (or loss) function over the space of possible consequences of an identification decision.

An alternative solution that avoids having to define these difficult, case-specific values is to limit the examiner's conclusion to the information that the examiner has, which is statements about  $\Pr(E | H_p, I)$  and  $\Pr(E | H_d, I)$ .

[1] Phillips VL, Saks MJ, Peterson JL. The application of signal detection theory to decision-making in forensic science. *J of Forensic Sci.* 2001;46:294-308.

[2] Biedermann A, Bozza S, Taroni F. Decision theoretic properties of forensic identification: Underlying logic and argumentative implications. *Forensic Sci Int.* 2008;177:120-132.

[3] Biedermann A, Bozza S, Taroni F. The decisionalization of individualization. *Forensic Sci Int.* 2016;266:29-38.

[4] Savage LJ. *The Foundations of Statistics*. Dover Publications, New York, 2<sup>nd</sup> edition, 1972.

[5] Dror I, Charlton D. Why Experts Make Errors. *J of Forensic Ident.* 2006;54(4):600-616.

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Comment on FR Doc # N/A

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## Submitter Information

**Name:** Halle Weingarten

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## General Comment

My name is Halle Weingarten. I have been a forensic toxicologist since 1964. I have worked directly under Irving Sunshine, Bryan Finkle, and James Brackett. My education includes a baccalaureate degree in biology with pre-medical curriculum and two years of graduate studies in Pharmacology in the Field of Toxicology under Richard Prouty. I have continued my education with courses, workshops, etc offered by local universities and the professional associations. For 19 years I was the Chief Forensic Toxicologist at the Santa Clara County Laboratory of Criminalistics in San Jose, California, a high volume lab at that time. I have worked as an independent consultant for about 21 years; my clients have included District Attorneys offices, public and private defense attorneys, and public toxicology labs (eg, Medical Examiner, Sheriff Office). I am a Diplomate of the American Board of Forensic Toxicology with formal training in pharmacology. I have been qualified and testified as an expert in alcohol and drug cases in criminal and civil court and in administrative and military proceedings well over 1000 times. I have done so for prosecution/plaintiff and defense. I consider myself fortunate that I was trained under pioneers who conveyed the importance of science in forensic scientist.

My experience in toxicology has been from several vantage points; I have managed forensic alcohol and toxicology programs that were considered to be exemplary. I have also reviewed analytical records from a number of forensic laboratories and testimony by "experts" from public labs. I believe my experience has given me a valuable perspective. I am saddened that such regulations have become necessary. My concern with these regulations generally relates to my anticipation that once they are adopted by DOJ, local crime labs will follow suit. Unfortunately, often the staff at these labs are chemists who are assigned to provide interpretative testimony despite no meaningful formal physiology, pharmacology or behavioral toxicology education. Often such testimony is factually incorrect and interpretations are tilted toward the agency administering the crime lab, such as district attorney or sheriff. Over the past 20 or so years, I have seen a lot less science in forensic

science/forensic toxicology. I was forced to leave a job I loved and was good at because I insisted on maintaining a quality assurance program and resisted pressure to give more prosecution-oriented testimony. What I observe now is often an assumption by crime lab staff that if the police arrest someone, he must be guilty. When the issue is under the influence or not, the mere presence of a drug in the blood should not make under the influence a foregone conclusion. But it very often does.

My specific concerns with Proposed Regulations Supporting Documentation Section C are as follows: Re: Pharmacokinetic...: the time period for which a drug is detectable is so varied this question cannot be answered with any degree of certainty. (Think of fast and slow metabolizers.) Likewise estimating BAC vs dose must have all assumptions and variables stated. Re: Blood concentrations (Refer to Proposed Uniform Language Statements Approved, #6): I have found major differences in therapeutic and toxic concentrations between sources, for instance, Winek's and the TIAFT compilations. When there are discrepancies, other sources should be consulted as well. Tolerance plays a significant role in toxicity and case reports are helpful. Under Position Statements: the proposed SOFT position statement referred to was voted down by SOFT members. Given that it was rejected by a majority of practicing forensic toxicologists, who comprise the SOFT membership, it should not be given the weight conferred by listing it, and it should be excluded from Proposed Uniform Language Statements, Not Approved, #1. This issue is more appropriately decided in court if argued by two qualified competent toxicologists. I personally am not convinced of the validity of the computations referred to, but there are experienced competent respected toxicologists who support it. I also think this amounts to censorship and has no place in a forensic setting. To me this is analogous to crime lab staffer stating in a report that alcohol retrograde extrapolation was invalid and should not be done.

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Footwear Tiretread\_pULTR\_05252016

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Comment on FR Doc # N/A

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## Submitter Information

**Name:** Steve Lund and Hari iyer Steve Lund and Hari iyer

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## General Comment

Department of Justice Proposed Uniform Language for Testimony and Reports for the Forensic Footwear and Tire Impression Discipline

We applaud the efforts being taken by the DOJ to review current practices of forensic testimony and standardize the language used when forensic expert witnesses testify in court. Reducing variation in jurors' perceived meaning of evidence on the basis of who delivered testimony is certainly an important component to the pursuit of justice. In light of the esteem of the Department of Justice and the strong public interest in this endeavor, we hope the reviewers will additionally consider whether the ultimate interpretations by the recipients of the standardized conclusions are supported by demonstrable observations, which are the (sole) source of objective information.

The proposed uniform language allows the examiner to express their subjective opinions (some of which may be viewed as verbal translations of subjective probability) but does not acknowledge the lack of an appropriate empirical basis for judging similarity and rarity. We hope that the provided uniform language guidelines do not lead to the perception that the testimony is sufficiently based on objective measures. We further hope that the language suggested in this proposal encourages the development of adequate databases to provide better empirical support for footwear & tire impression interpretations.

Respectfully,  
Steve Lund and Hari Iyer

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## Submitter Information

**Name:** Steve Lund and Hari iyer Steve Lund and Hari iyer

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## General Comment

DEPARTMENT OF JUSTICE PROPOSED UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS  
FOR THE FORENSIC LATENT PRINT DISCIPLINE

We applaud the efforts being taken by the DOJ to review current practices of forensic testimony and standardize the language used when forensic expert witnesses testify in court. Reducing variation in jurors' perceived meaning of evidence on the basis of who delivered testimony is certainly an important component to the pursuit of justice. In light of the esteem of the Department of Justice and the strong public interest in this endeavor, we hope the reviewers will additionally consider whether the ultimate interpretations by the recipients of the standardized conclusions are supported by demonstrable observations, which are the (sole) source of objective information.

In item 1 as well as item 3 under "Statements Approved for Use in Latent Print Examination Testimony and/or Laboratory Reports", reference is made to "sufficient quality and quantity" of information. In item1 the phrase "would not expect..." appears. In both cases, citation of relative frequencies from appropriate databases should be required to clarify the meaning of these phrases/claims.

Respectfully,  
Steve Lund and Hari Iyer

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## Submitter Information

**Name:** Steve Lund and Hari iyer Steve Lund and Hari iyer

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## General Comment

DEPARTMENT OF JUSTICE PROPOSED UNIFORM LANGUAGE FOR TESTIMONY AND REPORTS FOR THE FORENSIC GLASS DISCIPLINE

We applaud the efforts being taken by the DOJ to review current practices of forensic testimony and standardize the language used when forensic expert witnesses testify in court. Reducing variation in jurors' perceived meaning of evidence on the basis of who delivered testimony is certainly an important component to the pursuit of justice. In light of the esteem of the Department of Justice and the strong public interest in this endeavor, we hope the reviewers will additionally consider whether the ultimate interpretations by the recipients of the standardized conclusions are supported by demonstrable observations, which are the (sole) source of objective information.

In the first sentence of item 2 under "Statements Approved for Use in Forensic Glass Comparison Testimony and/or Laboratory Reports" the term "indistinguishable" is used. In order to prevent the possible misperception that the false positive rate is zero, we would suggest this paragraph explicitly require a clarification to the effect that "indistinguishable" does not correspond to a "unique identification to the exclusion of all others". We also suggest requiring an explicit description of the criteria used to arrive at a conclusion of "indistinguishable" as well as the relative frequency of samples in a suitable database that are also considered indistinguishable from the questioned sample under this criterion.

In the last sentences of items 2 and 3 under "Statements Approved for Use in Forensic Glass Comparison Testimony and/or Laboratory Reports" reference is made to probabilities. We would advise against the use of the word "probabilities", replacing it with "relative frequencies"; the distinction being that a relative frequency is a direct summary of presented data whereas probabilities are often calculated by combining available empirical data with subjective model assumptions. The term probability is not synonymous with the term relative frequency.

Technically speaking, the same concerns apply to item 5 under "Statements Approved for Use in Forensic Glass

Comparison Testimony and/or Laboratory Reports" because, in the absence of an explicit reference to databases and relative frequencies, the audience may be left with the impression that the false negative rate is zero.

Respectfully,  
Steve Lund and Hari iyer