



911 Call Analysis: Concerns and Recommendations

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EXECUTIVE SUMMARY

The widespread use of 911 call analysis as evidence by law enforcement and in criminal proceedings has raised significant concerns about its scientific validity and its impact on the criminal justice system. Despite lacking robust empirical support, techniques such as the 911 COPS Scale[©] are routinely used to assess the credibility and even guilt of 911 callers, often reinforcing investigative confirmation bias and diverting attention from more reliable evidence. **The application of 911 call analysis has contributed to wrongful convictions and continues to influence criminal investigations and court proceedings, posing an ongoing risk to impartial legal outcomes and public safety.** This memo outlines the history of 911 call analysis in law enforcement, discusses key features, details methodological shortcomings, and offers policy recommendations to restrict use and prevent future miscarriages of justice.

BACKGROUND

Nationally, 911 call analysis is commonly used to corroborate or challenge witness statements; verify the accuracy of reported incidents; and reconstruct the sequence of events before, during, and after an incident.¹ This approach involves systematically reviewing emergency call recordings and related data to generate evidence about both the events in question and the callers themselves.² In practice, 911 call analysis aims to detect deception and uncover investigative leads by examining call content, caller behavior and psychological cues, and details such as response times and actions taken by first responders.³

911 call analysis was developed in 2006 by Tracy Harpster, a police lieutenant from Moraine, Ohio, who had no scientific background and only limited experience in homicide investigations.⁴ Although some linguistics and forensic science experts questioned 911 call analysis' reliability, in part due to its failure to

KEY FINDINGS

- 911 call analysis plays a concerning role in criminal investigations and proceedings given that it lacks scientific validity. The 911 COPS Scale[©] is not supported by transparent research or empirical data, and its use by law enforcement is not subject to procedural safeguards.
- Unregulated reliance on 911 call analysis threatens the fairness of the criminal legal system, contributing to wrongful convictions and diverting focus from reputable evidence and expertise.
- To address these issues, policymakers should prohibit the use of 911 call analysis as evidence in court, conduct mandatory reviews of past convictions involving the technique, and establish an independent forensic science commission to provide oversight and education on proper forensic evidence protocols.
- Education and training for legal professionals must emphasize reliance on validated forensic evidence methods, and oversight bodies should issue clear guidelines and warnings against pseudoscientific practices.

consider speech while under duress and language differences due to cultural background, disability, or educational level, the method gained significant traction within the U.S. law enforcement community. A survey of approximately 200 FBI National Academy attendees found that 95% of homicide investigators often or always review 911 calls as part of their investigative process.⁵ Additionally, local agencies have adopted 911 call analysis for both investigative and prosecutorial purposes.

As of 2022, Harpster has consulted on more than 1,500 homicide cases nationwide and has trained dispatchers, law enforcement officers, and attorneys in its application.⁶

Harpster's training program claims to identify "guilty indicators" embedded in the language and behavior of callers, purportedly aiding investigations and influencing legal outcomes.⁷ However, significant concerns remain regarding the method's validity and reliability, including issues with data collection, small sample sizes, and the absence of rigorous validation studies.⁸ Moreover, Harpster's refusal to share data or subject the program to independent review further undermines its credibility.⁹ To date, every researcher who has tried to verify the legitimacy of this method has failed.¹⁰

The adoption of 911 call analysis highlights a troubling reliance on pseudo-scientific methods in law enforcement, often prioritizing quick technological solutions over rigorous scientific validation. The method's perceived credibility has



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given prosecutors and investigators a seemingly useful tool for detecting deception, especially in cases with limited evidence. Consequently, 911 call analysis has been used extensively, and often inappropriately, in criminal cases nationwide, contributing to numerous wrongful convictions, without repercussions for prosecutors. According to a 2022 *ProPublica* report, this technique has played a pivotal role in arrests, prosecutions, and convictions in more than one hundred cases across twenty-six states. Some prosecutors were aware that 911 call analysis would not be recognized as scientific evidence, yet they continued to present it during

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trials, disguising this fact from unwitting defendants. **Notably, 911 call analysis remains admissible in courts in every state.**¹¹

911 Call Analysis - COPS Scale

Harpster and trained law enforcement personnel conduct 911 call analysis by examining verbal cues and caller behaviors during emergency calls, particularly in serious cases such as homicides. The approach relies on Harpster's trademarked 911 COPS (Considering Offender Probability in Statements) Scale[®], a checklist with 15 "innocent indicators" and 38 "guilty indicators." These indicators are grouped into six categories: (1) **whom the call is about**, (2) **what the call concerns**, (3) **how the call is made**, (4) **passive defenses**, (5) **resistance to the dispatcher**, and (6) **additional guilty indicators**. The first three categories assess innocence or guilt by the presence or absence of certain behaviors, such as making an immediate plea for help, which suggests innocence if present. The last three categories highlight behaviors that, if present, are considered signs of guilt.¹²

Key Guilty Indicators:

- **Use of "we":** callers may use "we" instead of "I," suggesting shared rather than personal responsibility for the incident.
- **Insulting or blaming the victim:** some callers unexpectedly insult or blame the victim during the call, which is uncommon and notable.
- **Minimizing with "just":** the use of "just" to downplay actions or involvement may indicate minimization.
- **The "huh" factor:** expressions of confusion (such as "huh" or "what") in response to relevant questions can suggest the caller is unprepared or inconsistent.
- **Repetition:** excessive repetition of words or phrases—rather than directly answering dispatcher questions—can indicate evasiveness.
- **Conflicting facts:** providing information that contradicts earlier statements may reveal inconsistencies in the caller's account.
- **Resistance to answering:** refusing to answer appropriate questions from the dispatcher can delay or hinder the investigative process.¹³

Key Failures of 911 COPS Scale©

911 call analysis, namely the 911 COPS Scale©, has significant flaws in its reliability and application, raising questions about its accuracy, investigative impact, and overall scientific validity.

Inaccuracy

The application of the COPS Scale to 911 calls has shown a pattern of overestimating caller involvement in criminal activity. A review by the FBI's Behavioral Analysis Unit (BAU) found that 911 calls were misclassified over 40% of the time when using the method.¹⁴ Another study assessed 175 cases and discovered that the majority of 911 call analysis' behavioral and verbal indicators were not reliable predictors of guilt.¹⁵ Of the 28 deception indicators tested, only four showed any measurable correlation to caller involvement, and in some cases, factors presumed to indicate guilt were actually more common among innocent callers. The research corroborated some of Harpster's 911 COPS Scale©, demonstrating how truthful callers more frequently issued direct pleas for help than deceptive callers, and provision of extraneous information was not a valid indicator of guilt. However, contrary to previous findings, voice modulation (such as changes in intensity and pitch) occurred more often in deceptive callers, while simply notifying dispatchers about a dead body was more frequently observed among truthful callers.¹⁶

This inaccuracy produces multiple harms. It can lead to false convictions, where an innocent person is prosecuted and can spend years in prison. In addition, when these inaccurate results lead to false convictions, the real perpetrator generally remains free and is able to commit additional crimes and jeopardize public safety.

Biased Investigative Processes

911 call analysis can heighten confirmation bias among officers, sometimes leading to the premature dismissal of alternative investigative avenues, undermining the accuracy and integrity of investigations.¹⁷ Further, initial judgments about caller involvement have been shown to shape the types of follow-up questions posed by law enforcement.¹⁸

Not only does the inaccuracy of 911 call analysis lead to false convictions, sending innocent people to prison, the real perpetrator remains free jeopardizing public safety.

Methodological Flaws and Lack of Replicability

Academic studies have failed to replicate the initial findings that underpin the use of the COPS Scale, casting further doubt on its efficacy. Studies have noted inconsistencies with how Harpster's original variables were defined and applied in follow-up studies, with many variables either expanded or narrowed.¹⁹ Despite the breadth of 911 call logs available, Harpster's foundational studies relied on relatively small sample sizes, weakening the generalizability of their conclusions.

POLICY RECOMMENDATIONS

The following recommendations would prevent the harms of 911 call analysis and its misuse in the justice system:

Prohibit the Use of 911 Call Analysis in Court:

Legislative bodies should enact laws or rules explicitly banning the admission of 911 call analysis as evidence in criminal trials given its lack of scientific validity and its potential to lead to wrongful convictions.

Enact Mandatory Reviews of Past Convictions:

Judicial and prosecutorial bodies should initiate a systematic review of past cases where 911 call analysis played a role in convictions. This could involve creating dedicated task forces to identify potential miscarriages of justice and facilitate the reopening of these cases.

Hold Prosecutors Accountable: Establish clear penalties for prosecutors who knowingly use 911 call analysis despite its inadmissibility. These sanctions could include disciplinary actions, fines, or even criminal charges in extreme cases where intentional misconduct is proven.



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Issue Official Warnings and Guidelines: State bar associations, courts, and law enforcement agencies should distribute official warnings and guidelines to all legal professionals informing them of the dangers of 911 call analysis and instructing them to avoid its use in both investigations and trials.

Promote Post-Conviction Relief Processes: Encourage the expansion of post-conviction review mechanisms to address wrongful convictions stemming from 911 call analysis. This could involve collaboration between prosecutors, defense attorneys, and innocence projects to ensure that those wrongfully convicted receive justice.

Provide Education and Training for Legal Professionals: Implement mandatory training programs for judges, prosecutors, defense attorneys, and law enforcement personnel on the flaws and risks associated with 911 call analysis. This training should emphasize the importance of relying on validated scientific methods in legal proceedings.

Establish a Forensic Science Commission: Implement an independent forensic science commission to prevent wrongful convictions due to false or misleading forensic evidence. The commission would set minimum standards and accreditation programs, act as an oversight body that addresses complaints, and provide the necessary training and educational resources for forensic science professionals.

ENDNOTES

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