F9 Expert Witness Testimony and Adaptive Speech Devices: Feasible Reality or Impractical Liability?

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Learning Overview: After attending this presentation, attendees will have a better understanding of bias and credibility challenges impacting expert witnesses who require Speech Generating Devices (SGDs) to communicate. This study examines the relationship between SGDs, juror perceptions of credibility, and attitudes toward experts requiring SGDs.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by examining juror bias, promoting awareness of SGD technology available to current or future analysts and experts, fostering change within the justice system, and encouraging further research into this relatively uncharted topic.

Research in this area may prove relevant, not just to expert witnesses, but also to forensic analysts with disabilities given the implications of the Sixth Amendment's Confrontation Clause, *Melendez-Diaz v. Massachusetts*, and subsequent cases in which a forensic analyst is the expert witness at trial.[1]

Currently, courtrooms turn to expert witnesses with increasing frequency. Credibility is crucial for expert witness testimony and can significantly influence case outcomes. Technological advances have improved quality of life for many persons with complex communication needs. Persons with disabilities such as autism and Amyotrophic Lateral Sclerosis (ALS) can participate, with the help of SGDs in multiple facets of society that were previously inaccessible. Most research into SGDs has focused on persons with moderate to profound disabilities. However, advanced devices allow persons with speech-related disorders, disabilities, or injuries without intellectual impairment a path to communication in the community and the workplace. Unfortunately, SGDs have many limitations and use may not translate to the highly scrutinized and technical areas of forensic analysis and expert witness testimony, where life and death decisions are dependent, in part, upon credibility perceptions.

A survey was designed and participants were asked to watch two video clips of a natural speaker and an expert testifying with the use of an SGD. Participants continued by rating each expert's performance on a 20-item witness credibility scale.[2] The survey also included multiple follow-up questions in a yes/no/neutral response format involving attorney attitudes toward SGD use.

When comparing aggregate mean responses between both experts, Student *t*-test results provide compelling evidence to suggest overall credibility and two subscale measures of credibility, trustworthiness and knowledge, are compromised by the use of an SGD (p-value < .05). For attorney attitudes, three chi squared goodness of fit tests indicated significant differences between expected and observed response frequencies (p -value < .05). Further analyses of the "yes/no" questions with the neutral responses eliminated showed a significant preference for the verbal expert over the non-verbal expert using an SGD.

The outcome of the study indicated that expert witnesses testifying with an SGD will experience significant stumbling blocks in demonstrating credibility. However, as with any breakthrough in commonly held negative societal views, more research and greater awareness can reshape the future for persons with complex communication needs and those surrounding them.

Reference(s):

1. Melendez-Diaz v. Massachusetts. 557 U.S. 305 (2009).
2. Brodsky, S.L., Griffin, M.P., and Cramer, R.J. (2010). The Witness Credibility Scale: An outcome measure for expert witness research. *Behavioral Sciences & the Law*, *28*(6), 892–907. https://doi.org/10.1002/bsl.917.

Expert Witness Credibility, Speech Generating Devices, Disability Bias

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