

The Role of Forensic Linguistics in Understanding Legal Documents in Court Proceedings: Controversies and Future Perspectives

by

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Abstract:

This paper considers raising some ongoing controversies in forensic linguistics and discussing future prospects. Forensic linguistics as an interdisciplinary field of applied linguistics analyzes and measures the language with respect to crime and judicial procedures and can help in the investigation of crimes. To facilitate the judgments, forensic linguistics analyzes the courtroom discourse and interprets the readability and comprehensibility of legal documents. Apart from that the cautions which have been given to the suspects by the police, are also analyzed by the forensic linguists for their comprehensibility. Another field of forensic linguistics is the “authorship attribution” of written or spoken texts. In this way, forensic linguistics works as the interface between language and the law. The paper concludes that with the help of scientific and technological advancements, the experts are able to compare documents and voice recordings more quickly and easily than they could do in the past years. Computer assistance makes it possible to break forensic linguistic data into numerous categories and to make rapid assessments. These developments are expected to expand the role of forensic linguistics even to a much larger scale.

Keywords: Forensic linguistics, legal documents, court proceedings, crime investigation, voice identification in forensic linguistics, controversies in forensic linguistics, criminal texts, etc.

Introduction:

Forensic linguistics is an interdisciplinary field of applied linguistics. It principally analyzes the language with respect to crime and judicial procedures (Ahmed, 2021). In this way, it can prove beneficial during the investigation of crimes. To facilitate the judgments, forensic linguistics analyzes the courtroom discourse and interprets the readability and comprehensibility of legal documents. Apart from that the cautions which have been given to the suspects by the police, are also analyzed by the forensic linguists for their comprehensibility. Another field of forensic linguistics is the “authorship attribution” of written or spoken texts (Danielewicz-Betz, 2012). In this way, forensic linguistics can be called an interface between language and the law (Figure 1).

The researcher in this paper has in detail analyzed the controversies which may be taken into consideration for the analysis through forensic linguistics and the future prospects of this subject with respect to the criminal investigation.

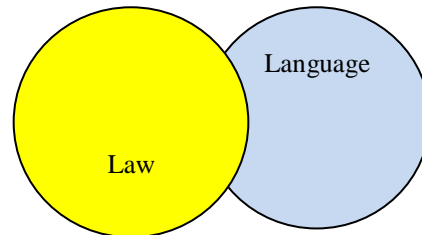


Figure 1: Interface between the language and the law (Ahmed, 2021)

Forensic Linguistic Controversies:

Although forensic linguistics is very helpful in legal proceedings and judgments yet there are some controversies remaining for forensic linguistics which may be discussed as follows:

Speaker Identification:

Identification of the speaker is not easy. One of the controversies in the application of forensic linguistic is the disagreement found amongst forensic linguists. This disagreement is about the accuracy of the identification of the speaker. There may be certain “vocal disguises” in the speaker’s sample voice given for examination and the examiners may find it very difficult to deal with it. There is a lower probability of determination in such a sample than the normal voice samples of the speaker. This issue can be resolved if the examiners request the court to order the suspect to give a voice sample repeating certain phrases in a natural conversational voice. If the culprit's voice is in some vocal disguise, the sample of the suspect may be ordered to be given in the same disguise or at least three times to the investigators are satisfied to a reasonable extent. “Voice specimens obtained with such specific instructions are usually very satisfactory for comparison purposes” but there is the universal standard for the number of words that are required for the identification purpose. It may vary from 10-20 words for various agencies (Machado et al., 2019; Danielewicz-Betz, 2012; Hollien, 2001; Sarma & Sarma, 2013).

According to “spectrographic voice identification” (Figures 2 & 3) the “intra-speaker variability” is differentiable from “inter-speaker variability.” This means that the differences in the same utterance by different speakers are notable but the scientific theory and data do not consider support this assumption. There are certain viewpoints that are based on actual error rates. These viewpoints about actual error rates are related to professional judgments about them. Moreover, “fragmentary experimental results” also impact these views about the actual error rates. It is to be noted that in this case “objective data” is not given much importance or it may be said that it is not representative of results where it comes to forensic applications (Danielewicz-Betz, 2012; Hollien, 2001; University of York, 2021).

Testimony:

Controversies also arise in relation to witness/police testimony. All the cases of second-hand verbal (apparently *verbatim*) material (cf. “I don’t know exactly what he said, but I know

he said he did it”) can be considered unreliable since human memory is incapable of retaining the exact wording even after a couple of seconds, not to speak of months or years. Moreover, reproduced utterances may be presented in isolation, lacking the original paralinguistic and situational or pragmatic context. There is a requirement of research that may determine the effect of “estimator variables” on speaker identification by ear witnesses. It should for the time be treated with considerable caution. Scientific criteria for court admissibility of testimony still pose a problem as they differ from the country. Required qualifications of examiners and presenters, called forensic experts, of forensic linguistic material, have not yet been clearly specified, either (Solan or Tiersma, 2005; Danielewicz-Betz, 2012).



Figure 2: Voice Identification -The Aural/Spectrographic Method (Owen, 2018)

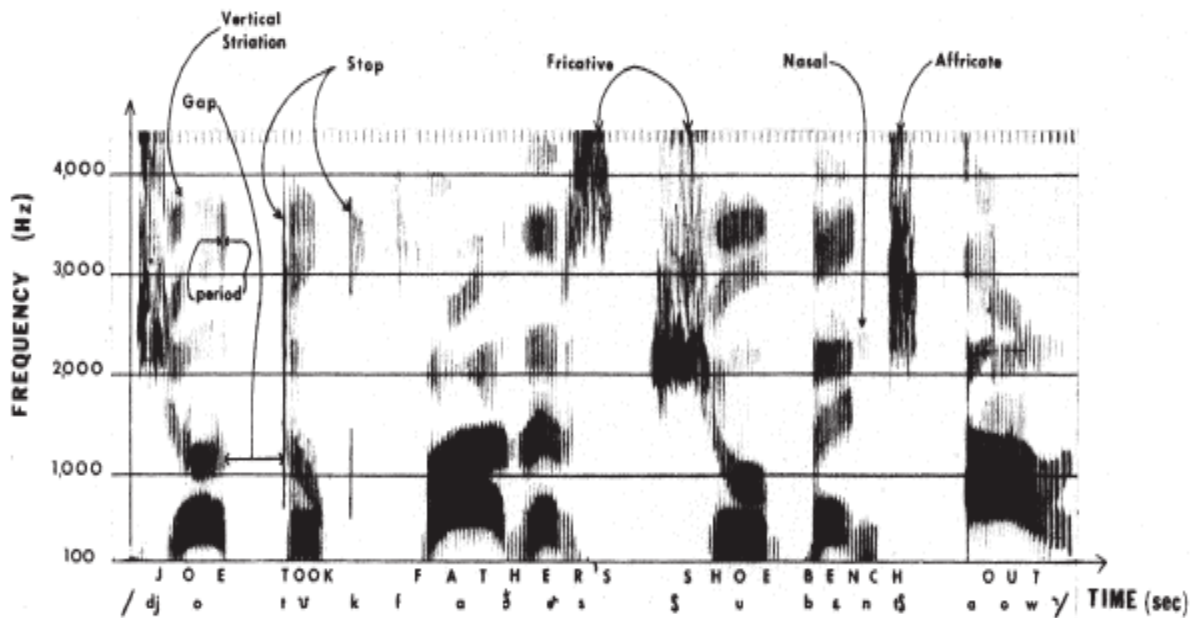


Figure 3: Spectrographic procedures for forensic purposes (Tanner, 2021)

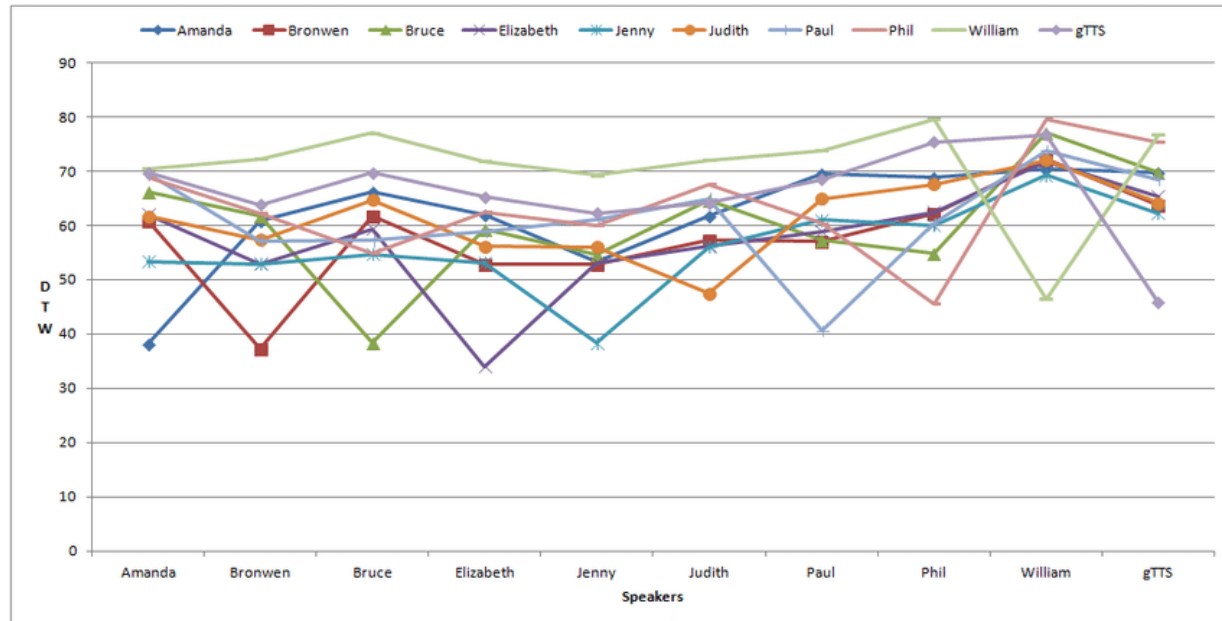


Figure 4: Analysis of intra and inter speaker variability on the spoken captions - subset of 100 speech signals corresponding to 20 images (Havard et al., 2017)

Impressionistic Likelihood and Veracity of Statements:

One may question the admissibility of witnesses’ oral evidence and statements, as well as judges’ decisions based on impressionistic linguistic witness evidence e.g., reliability of memory, statements deprived of context and pragmatic implications, etc. Veracity refers to the truthfulness of a spoken or written testimony. When defendants feel challenged in this respect, they may suddenly become conscious of their pronunciation or hyper-correct, in sociolinguistic terms. Despite the fact that some witnesses claim that they can remember the exact words of the defendant months or even years later, it is doubtful if this is ever accurate. This seems even less likely, when more than one person, for example, a number of police officers, quote a suspect *verbatim* after a considerable time lapse. Hence a question arises: how long, in reality, can one remember what someone else has said—word for word (Danielewicz-Betz, 2012)? The upper limit for short-term memory is 7-9 items, beyond which meaning may be retained but not the actual wording. Moreover, an average recall level is about 30-40% already after a few seconds (Clifford and Scott, 1978). In addition, the usage of generic language or an incongruous register when a specific register is normally used leads the forensic linguist to raise doubts about the genuineness of a given statement (Danielewicz-Betz, 2012).

Forensic Linguistics to Establish Guilt/Innocence:

Forensic linguists certainly contribute toward pronouncing someone innocent because they may present convincing linguistic evidence in the court. They can also prompt admittance of guilt with the help of certain evidence after their analysis. They may be asked to investigate the interrogations recorded by the police that may be used to decipher facts about the admitted guilt of a person - whether it was knowingly admitted or not. It may also be determined that a person “underwent just interrogation” or only “understood the conversation” which was

conducted during the investigation or the interview. The recorded interviews are presented in the court as important evidence. The dialogue analysis of the interviews, therefore, may be performed by forensic linguists who may prove someone's guilt or innocence. This analysis may also determine potential inconsistencies in the interviewing process, making recordings inadmissible in court. The defense can therefore show that the recorded language does not necessarily indicate the defendant's guilt (Danielewicz-Betz, 2012).

Restrictions about Sample:

An important aspect of forensic linguistics is to determine the author of a certain piece of writing. This is called Author identification, a very interesting and potentially useful area to determine the guilt. Interestingly, the documents which are available for forensic analysis are usually very short pieces of writing. These may include ransom notes or letters which have blackmail materials. These documents, therefore, are hardly useful as reliable identifications (Ahmed, 2021). Another problem is that it is still to be discovered and determined which are those linguistic features that can be reliable indicators to determine the authorship. The reliability of linguistic features is also a big question in the field of forensic linguistics. This field may make advancements in the future but the small size of criminal documents, as anticipated, would always prove to be a problem (Danielewicz-Betz, 2012; Tiersma, 2009). There is a dire need that the robust attribution methods must be determined to be applied to short criminal texts.

However, several important questions remain open in relation to the "authorship attribution," in which the most important issue is the required text length. Various researches and reports have indicated fruitful results with short criminal texts, which have less than 1,000 words length (Sanderson and Guenter, 2006; Hirst and Feguina, 2007) but forensic linguists have not yet been able to define the criminal text length which may be declared reliable for authorship attribution (Danielewicz-Betz, 2012).

Future Prospects of Forensic Linguistics

There are certain future challenges for forensic linguistics and possible ways towards the scientific legitimization of the discipline. Will forensic linguistics ever become an established discipline, on a par with scientific forensic methods of providing criminal evidence? From the perspective of its international development the following challenges for the discipline emerge before such a status can be achieved:

- i. The integrated study of forensic linguistics/language and the law across different judicial systems and geographical boundaries;
- ii. The development of replicable methods of analysis to be used in expert witness evidence in order to ensure internal and external validity in research;
- iii. Extensive detailing of codes of good practice and conduct;
- iv. Cooperation of International Association of Forensic Linguistics (IAFL) with other associations and societies of forensic sciences;
- v. Certification of forensic linguistics as a scientific discipline, i.e., universal acceptance of linguistic evidence along with other forensic evidence (e.g. as fulfilling the Daubert standard in the USA).

It seems that the future of forensic linguistics lies with “corpus-driven approaches” (Kniffka 2007; Ahmed, 2021). The forensic linguistic community also needs to bring together relevant scholars and linguistics experts of non-English backgrounds with those of English-speaking backgrounds. “The English-speaking work on forensic linguistics has not always been aware of work published in German,” (Danielewicz-Betz, 2012; Kniffka 2007) or other languages for that matter. “The forensic linguistic work in Germany was already well advanced when it was only just beginning in English-speaking contexts” (Danielewicz-Betz, 2012; Kniffka 2007).

Summary and Conclusion:

Forensic linguists have a difficult role to play in court testimony and may not be always permitted. Their linguistic evidence may be helpful for law enforcement agencies during their investigations of a crime. These may also be helpful for the lawyers who are preparing for trial. As a matter of caution, one may add that testifying linguists should not, however, state conclusions that indicate more than the evidence presented. No matter how strongly the linguist is convinced that the defendant is innocent, he/she should restrict their opinion to only stating the degree of probability. Moreover, the forensic linguists need to stay impartial at all times, as they serve the law in the role of experts and cannot under any circumstances side with defense or prosecution.

Although linguistic expertise has been frequently proved beneficial, voice identification and authorship attribution have not yet reached a considerable level of reliability. However, the linguistic expertise can facilitate the “elimination of a suspect as the perpetrator” (Solan and Tiersma, 2005), and the advancements in science and technology have been helpful for linguists to compare documents and voice recordings better than before and make it possible to break the available data into various categories to make a rapid assessment about guilt or innocence. These developments predict that there is a video scope of forensic linguistics in the criminal investigation in the future.

References

- Ahmed, H. R. (2021). The Role of Forensic Linguistics in Crime Investigation: Uses in Legal Proceedings. *ANGLISTICUM, Journal of the Association-Institute for English Language and American Studies*, 10(2), 23-31.
- Danielewicz-Betz, A. (2012). The role of forensic linguistics in crime investigation. In *Language Studies: Stretching the Boundaries* by Littlejohn, A. and Rao, M. S. (Eds): Cambridge Scholars Publishing
- Havard, W. N., Laurent, B., Olivier, R. (2017). *SPEECH-COCO: 600k Visually Grounded Spoken Captions Aligned to MSCOCO Data Set*. Retrieved March 1, 2021 from http://www.speech.kth.se/glu2017/papers/GLU2017_paper_10.pdf
- Hollien, H. (2001). *Forensic Voice Identification*. London: Academic Press. Keselj, V., F. Peng, N. Cercone, and C. Thomas. 2003. N-gram-based author profiles for authorship attribution. *Proceedings of the Pacific Association for Computational Linguistics*, 255-264.

- Kniffka, H. (2007). *Working in Language and Law: A German Perspective*, Basingstoke: Palgrave Macmillan.
- Leech, G. (1983). *Principles of Pragmatics*. London: Longman.
- Machado, T. J., Vieira, F. J., de Oliveira, M. A. (2019). Forensic Speaker Verification Using Ordinary Least Squares. *Sensors*, 19(20), 43-85.
- Owen, J. (2018). Voice Identification; the Aural/Spectrographic Method. *Owen Forensic*. Retrieved March 1, 2021 from <https://www.owenforensicservices.com/voice-identification-the-aural-spectrographic-method/>
- Sarma, M., Sarma, M. K. (2013). *Speaker Identification Model for Assamese Language Using a Neural Framework*. Retrieved March 1, 2021 from https://www.researchgate.net/publication/258885018_Speaker_Identification_Model_for_Assamese_Language_Using_a_Neural_Framework
- Solan, L. M., Tiersma, P. M. (2005). *Speaking of Crime: The Language of Criminal Justice, Chicago and London*: Chicago: The University of Chicago Press.
- Tanner, D. (2021). *Voice Print Analysis Services*. Retrieved March 1, 2021 from <http://www.drdenstanner.com/Voice%20Print%20Analysis.htm>
- Tiersma, P. M. (2009). What is language and law? And does anyone care? In F. Lorz, A. and D. Stein, (eds.) *Law and Language: Theory and Society*. Loyola-LA Legal Studies Paper No. 2009-11.
- University of York. (2021). *What is Forensic Speech Science*. Retrieved March 1, 2021 from <https://www.york.ac.uk/language/about/forensic-speech-science-explained/>