

Trajectories of Investigation Probing into Mysteries: Forensic Linguistics is a Key to Elicit Faculty

Thanisha S. Muhammed, Research Scholar in English, Noorul Islam Centre for Higher Education, Kumaracoil, Thuckalay, Tamilnadu, India.

Abstract

Forensic linguistics deals with the imprints of police interviews and language crimes. It is considered to be a sub bureau of Applied Linguistics. Forensic linguistics has significantly contributed to the field of crime with improved objectivity and professionalism. The article provides a basic introduction to the field of forensic linguistics and the linguistic tools used in some prominent cases such as Linguistic Inquiry and Word Count (LIWC), Support Vector Machine (SVM), Authorship Profiling, Linguistic Fingerprint Analysis etc. used in some prominent cases and also the author attribution in the suicide notes. The article focuses on the analysis of suicidal notes of Virginia Woolf, Kurt Cobain, a forty nine years old brigadier in the Iraqi Army and an anonymous letter written by the Unabomber with the help of linguistics. Forensic linguistics provides patterns which become the indicators of genuine intent to commit language crime. Forensic linguistics connects the established psychological studies to powerful personality traits and the established linguistic studies of language and power. The article opens up the foregoing uncontrived area of language crime. The article puts stress on the importance of forensic linguistics in today's sphere as the linguistic tool will help in the prediction and prevention of language crime.

Keywords

Forensic Linguistics, Linguistic Inquiry and Word Count (LIWC), Support Vector Machine (SVM), Authorship Profiling, Linguistic Fingerprint Analysis, Applied Linguistics, Unabomber.

Introduction

Forensic linguistics is a branch of applied linguistics involving the examination of language evidence in a criminal or civil matter and is carried out for two broad purposes. Firstly, for language analyses and secondly, to analyze the written language samples along with the testimony of a linguistic expert. The term forensics linguistics was first used by a linguistic

professor Jan Svartik in the book “The Evans Statement: A Case of Forensic Linguistics”. In the mid-90s, the need for journals was felt and the International Association for Forensics Phonetics (IAFP), Forensic Linguistics: The International Journal of Speech, Language and the Law and the International Association of Forensic Linguistics (IAFL) were established. In the earlier stages, forensic linguistics was linked only in concern with the use of language. With the evolvement of time, forensics linguistics is able to prevent and predict the social settings among the citizens who did not abide by the law. There are principally three areas of application for linguistics. Firstly, it is in understanding the language of the written law. Secondly, the forensic linguistics should understand the language use in forensic judicial process and thirdly, for the provision of linguistic evidence. The discipline of forensic linguistics is not homogenous; it involves a wide range of experts, forensic linguistic tools, machine learning, research in different areas of the field, etc. The main objective of forensic linguistics is to serve justice in the court of law and to find the truth when a crime is committed.

Review of Literature

Yla R Tausczik and James W Pennebaker, in their article “The Psychological Meaning of Words: LIWC and Computerized Text Analysis Methods”, draw attention to the fact that one is in the midst of a technological revolution whereby, for the first time, researchers can link daily word use to a broad array of real word behaviors. James J Bradac celebrated the many ways that scientists could simultaneously study both language and human communication. The article focuses on the Bradac’s approach of research to study a new array of text analysis. This theory is applied to the computer based text analysis tools to understand and study the deeper side of a language. The method was called Linguistic Inquiry and Word Count (LIWC). The LIWC was a transparent text analysis program that counts words in psychologically meaningful categories. The LIWC focuses on the emotional, social relations and thinking process of an individual. Each emotions vary with people. The LIWC has the unique ability to detect these meaning and categories them accordingly.

1. Yong -Hun Lee and Gihyun Joh, in their article “Identifying Suicide Notes Using Forensic Linguistics and Machine Learning”, compiled a corpus using Virginia Woolf’s literary works and suicide notes. The texts were subjected to Linguistic Inquiry and Word Count (LIWC) analyses and thereafter to Principal Component Analysis (PCA) for more accuracy. It was observed that the suicide notes in all the six texts were distinct from the literary works;

further subjecting each of these six texts which were already analyzed with the LIWC software to PCA analyses also showed that the suicide notes were clearly identifiable from the literary works. Yet again, to ensure more classification and accuracy the results obtained through the LIWC software the texts and the hypothetical texts were measured through a machine learning technique. The Support Vector Machine (SVM) also flagged out the suicide notes from the literary works with textual accuracy. Thus, it illustrates that the linguistic traits of a text can be utilized to identify and isolate suicide notes from variable types and hues of writings and literary works which hence can be made use of in the research of machine learning

2. Victoria Gullen-Nieto, Chelo Vargas-Sierra, Maria Pardino Juan, Patrico Martinez Barco, Armando Suarez Cueto, in their article “Exploring State of The Art Software for Forensic Authorship Identification”, point out back in 1990s Malcolm Coulhard announced the beginnings of an emerging discipline, forensic linguistics, resulting from the interface of language, crime and law. The linguists help in the cases dealing with legal setting, voice identification; authorship identification etc. the application of new technologies to the analysis of questioned texts has greatly facilitated the works of the language scientist as expert witness in legal setting and even contributed to the successful analysis and interpretation of style providing statistical and measurable data. There are several linguistics tools such as J vocalyse, copy catch gold, word smith tools etc. for authorship identification purposes. The article presents one with exploration of strengths, limitations and challenges and only signature stylometric system was designed for authorship identification purposes and therefore all the other tools have its own disadvantages which will act as an obstacle for solving a case related to language.
3. Ilzam Mahfudurido, in his article “Revealing Motives and Language Behavior in A Suicide Note”, discusses that suicide note is one of the noteworthy evidences in forensic linguistics. It informs the suicidal behavior of the note writer, such as the emotional aspects, messages, expectations, motives and its genuineness. In this article, words, phrases used by a married young lady in her suicide note are scrutinized and the relevant theory to unravel the message and motives, the lexical semantics analysis showed that she had left a couple of messages like apologies, requests in an emphatic tone and tenor for others to follow. Nevertheless, the pragmatic semantics analysis and the relevant theory highlighted the motive to be a feeling of

failure as a housewife. The analyzing procedure was done by conducting twofold analyses. It is indeed the patriarchal culture that encouraged the young lady to take her own life.

Case Studies

1. Linguistic Investigation of Virginia Woolf's Suicide Note. One of the prominent evidences in the field of forensic linguistics is the suicide notes. It gives a picture of the mental state of the deceased as it will be a mixture of the victim's emotional aspects, expectations, reasons and its authenticity. Virginia Woolf was a prolific writer, activist, novelist, etc. She committed suicide in the year 1941 leaving behind suicide notes for her husband and her sister. The letter was made public and was misinterpreted by the crowd. The people misapprehended that her suicidal act was caused because of the onset of World War II and due to writer's block. Later, the researchers analyzed Virginia Woolf's letters under the light of the forensic linguistics known as Linguistic Inquiry and Word Count (LIWC) and these analyses were applied to a machine learning techniques called as the Support Vector Machine (SVM). Based on machine learning and the LIWC, one can conclude that Virginia Woolf's suicide notes are genuine and her death was caused due to depression which was triggered by her mental illness called bipolar disorder.
2. Criminology (Anonymous letter)

One of the modern features of forensic linguistics is the discovery of the Linguistics Fingerprints. It confers the mark of uniqueness of a speaker or writer to that of a human fingerprint it points out the differing manner in which each human being or an individual employs the language. This tool is of great importance as it helped the FBI agent James R Fitzgerald to catch the Unabomber. The serial bomber set several bombs in the universities and the airlines. Theodore Kaczynski who is known as the Unabomber later sends a long manifesto to the Industrial Society, a company in which his brother David Kaczynski worked. David found the phrases in the manifesto disturbingly familiar to the ones used by his brother Theodore. David later handed over the manifesto to the forensic department and James analyzed the manifesto and marked the indicators and traced out a specific pattern in the manifesto and the letters of Theodore. James was able to identify a linguistic fingerprint being left behind. Along with the assistance of David, James concluded that the documents were written by Theodore Kaczynski.

3. Linguistic Profiling Analysis of Kurt Cobain's Suicide Note.

The language used in suicide notes has a pivotal role and the two steps of analysis are needed. The first is to see the surface structure and the second, to understand the deep structure underlying the text that is the intention or the motives of underlying the text. The intention or the motives of writing a letter can be revealed through the linguistic features such as phonology, semantics, pragmatics etc. Kurt Cobain was a lead singer, song writer and a guitarist in a rock band called Nirvana. He was found dead on April 8th from a self-inflicted shotgun wound. His letter was analyzed and through lexical words, the authorship profiling of Kurt Cobain was done and it contained negative connotations.

Authorship attribution is the subdivision of authorship identification which aims to examine the characteristic features of a piece of writing to which will enable the researcher to establish its rightful author. It is one of the methods and techniques used by the forensic department and applied linguistics to examine a suicide note the letter was believed to be written by a forty nine year old brigadier in Iraqi Army and he was found dead with a gunshot on the forehead. The family of the deceased challenged this and claimed it an assassination disguised as a suicide. The findings were compared to a letter to his sons which was previously written by the brigadier. The linguists used the micro linguistic and macro linguistic features. Using the micro linguistic method, they were able to conclude that the letter was written by the deceased and from macro linguistics; the linguists could conclude that the suicide note was genuine and he was not simulated or pressured under any threat.

Conclusion

Law is codified in the language. It is an important vehicle for the display of linguistic power in shaping people's lives. Forensic linguistics plays a vital part in addressing the different aspects of language. It provides a cautious and systematic examination of language. With the help of forensic linguistics the police officials can use the corroboration to interview witness and suspected person more efficiently and can also solve crime more accurately and objectively. Lawyers, judges and jury members can use this analysis to help estimate questions of guilt and innocence more fairly and the translators and interpreters can use forensic linguistics to communicate with greater correctness. The testimonies of a forensic linguistic is based on sound research this will bolster the validity of their data and the courts believe that there is a place for linguistic

expertise in the appropriate cases. The forensic linguistics not only solves the complicated cases but also rectifies the miscarriages of justice. The judges rely on the lexical choices provided by the linguists and they ensure the right verdict and also avoid flaws that take place in the courts of law.

References

- Alhumsy Mohammad Husam, Key Aspects in Relation to Forensic Linguistics International, vol .2, no.5, 2019. pp 83-85.
- Brown Cameron S.D.Cameron. Investigating and Prosecuting Cyber Crime: Forensic Dependencies and Barriers to Justice. vol .9, no.1, 2015. pp 55-119.
- Dr. R. Abilasha, Dr. M. Ilankumaran, 'Developing Communication Skills of Students – An Analysis on Pragmatic Performance', International Journal on Studies in English Language and Literature (IJSELL) with IF 3.537, Volume 6, Issue 7, July, 2018, PP 26-31, ISSN: 2347-3126 (Print) & ISSN: 2347-3134 (Online)
- Dr. R. Abilasha, Dr. M. Ilankumaran, 'Psychological Factors Permeating Global Literature – An Overview' International Journal of English Language and Literature in Humanities (IJELH) with IF 5.7, vol.6 no.12, Dec. 2018, pp.8-16, ISSN-2321-7065 (Online)
- Eva T. S. Sudjana, Fitri Nurul. Kurt Cobain's Suicide Note Case: Forensic Linguistic Profiling, vol.6, no. 4, 2013. pp 217-227.
- Kabok Tolnaine Zsuzsanna. Interdisciplinary Relations between Police Science and Applied Linguistics-Forensic Linguistics, vol. XVI, no. 2, 2016. pp 195-206.
- Ni Luh Nyoman Seri Malini, Tan Venessa. Forensics Linguistics Analysis of Virginia Woolf's Suicide Notes, vol .9, no.1, 2016. pp 52-57.
- Ridhwani Huda Nurul, Sawirman, The Process Type and Participant Function of Jiah Khan's, Kevin Carter's, and Virginia Woolf's Suicide Discourses, vol .1, no.1, July 2020. pp. 22-29.
- Udina Natalia, Forensic linguistics implications for legal education: creating the e-textbook on language and law. vol 22, no 4, 2017. pp 1337-1340.