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A Forensic Linguistics Study of Ahok's Statements in Psychological Variables Use Computerized Text Analysis

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Abstract:

Tjahaja Basuki Purnama, then we call Ahok had made headlines in a number of media in legal cases that he faced in the year 2016/2017. The role of forensic linguist in analyzing and providing information is very important in the judicial process and certainly build Ahok's character in both positive and negative news content. The results of the analysis of a forensic linguist depart from his scientific opinion. Therefore an expert witness has the same responsibility to produce objective information. This research aims to analyze the construction of psychological variables on Ahok's statement from a forensic linguistic perspective. The text file was organized for transcription LIWC analysis to calculate the percentage of clout, analytical, and authentic variables that Ahok's use. LIWC scores were connected with language dimension and psychology issues. These findings showed that the writer (Ahok) is higher in clout and authenticity. However, he is lower in analytical thinking, which may be interpreted as being more personal and informal.

Keywords: Forensic Linguistics, Forensic Psychology, Computerized Text Analysis, Linguistics.

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1. Introduction

Many clashes that arise in the process of human interaction can be resolved by the parties to the dispute themselves. In the case of a misunderstanding of the question that was deemed insulting earlier, for example, the questioner then apologizes and the apology is accepted by the person who feels offended so that the problem is considered resolved. In the case of buying and selling, the party that feels disadvantaged can ask for compensation, and if the request is fulfilled, then the problem is solved. Even in breach agreement cases, the parties involved can take the peaceful path so that disputes that arise can be resolved by themselves.

If in a clash the disputing parties can resolve their disputes themselves by peaceful earnings, life in this world will feel very comfortable. Unfortunately, such a peaceful clearance cannot always be achieved.

Disputing parties sometimes do not want to cooperate, so there must be another person who can resolve their disputes. The party in question is the court, they bring the matter they dispute to court to get a solution. Thus, the court functions to resolve disputes that occur in a society based on existing regulations.

The blasphemy case by Basuki Tjahaja Purnama, or known as Ahok, was viral in 2017. On social media, the majority of accounts have shared article links of the case. Whatsapp application (private room) is also a media for spreading news Ahok case. This is under Rahardjo's opinion, that one discourse (Prior Discourse) submits a truth claim, while another discourse carries out criticism or counter-discourse, to be further replied by the first discourse in the form of an apologetic discourse, or instead counter-attack (counter-discourse) (Rahardjo, 2007). This is what

happened at that time. News that are countered, are seen passing by on various social media. This makes the correctness and accuracy of the news content are questionable.

Posts with less content also participated in the war discourse. This seems to be under the development of human thought whose formula comes from *Auguste Comte* (Suriasumantri, 2009). In other words, human thought which was originally theological developed towards metaphysics and then became positive. Theology, as we all know, is an explanation of symptoms referring to God. Metaphysic is a transition from theology to positive, where explanation refers to impersonal strength and no longer refers to God or gods. While positive, of course, refers to the symptoms themselves. The western mindset with our mindset is very different. They (the west) give a bigger portion on the positive level, while the portion of God is getting smaller. In contrast, our mindset emphasizes more on God, or it can be said that our theological portion is greater than positive. For example, when sick, western people go straight to the doctor (by research), while we (usually) choose to endure pain by praying, go to alternative medicine, and so on. Nothing is better or worse than that mindset, they are the same when used wisely.

Regarding the news of Ahok's case at that time, there were some interesting things to analyze using a linguistic perspective. This study is simply trying to peel back Ahok's sentences or utterances that are considered to have hurt Muslims so that the settlement of this case took a long time then. There are already many language experts involved and provide assumptions based on their respective scholarship.

Sharpening the literature in computational linguistics, this study goals to discover language processes in the texts and how it's different from other reviewers. In particular, this study focuses on three summary variables that have demonstrated predictive power in language research (Cohn et al., 2004; Kacewicz et al., 2013a; Newman et al., 2003; Pennebaker et al., 2014): (1) analytical thinking, (2)

authenticity, and (3) clout. By studying the different perspectives in terms of these processes and variables, it furthers our understanding of how those text refers to and influences on consumer decisions via their writing.

1.2 Language Dimension

a. Clout

Clout refers to the relative social status, confidence, or leadership that people display through their writing or talking. In LIWC, a high degree in clout indicates a writing style that is high in confidence, leadership and social status, whereas a low degree of clout number suggests a more tentative and humble style in the writing (Pennebaker & Graybeal, 2001).

Previous studies have shown that confidence is positively correlated with expertise in a particular field (Sniezek & Van Swol, 2001; Trafimow & Sniezek, 1994). Hence, opinion leaders, as members with higher confidence, probably incorporate more expert views in the text, showing their certainties on the information they present. The delivery of this kind of confidence can be reflected by the expertise revealed in their writing. The confidence of someone that comes with the expertise also has a positive effect.

b. Authentic

Authenticity is primarily concerned with credibility and trustworthiness. Authenticity in LIWC detects whether people express authentically or honestly. Communication research shows that when people reveal themselves authentically or honestly, they are more personal, disclosed, and vulnerable (Chung & Pennebaker, 2015; Pennebaker et al., 2015). Their writings are likely to establish a relationship between themselves and their stories, to take responsibility for their behavior. Conversely, people involved in deceptive communication tend to distant themselves by using fewer first and third-person singular pronouns, more negative words, etc. (Newman et al., 2003).

It can be argued that trustworthy and credibility of users can be inferred from authentic writing. People with an authentic writing style would be considered to have high credibility and be generally trusted by others (Chaiken et al., 1989; Chen & Chaiken, 1999). Given that the reviewer's credibility has a positive and remarkable effect on review helpfulness and information adoption (Chua & Banerjee, 2014; Filieri, 2015; Forman et al., 2008), reviews in authentic writing with certain trustworthy and credibility will consequently have a similar positive effect.

c. Analytical thinking

Analytical thinking, as a writing style, is related to the use of analysis or logical reasoning. Higher analytical thinking is associated with the more formal and logical text. Analytical thinking is measured in LIWC by identifying formal, logical and hierarchical thinking patterns in text based on function words (e.g., pronouns, articles) and grammar words (e.g., prepositions, conjunctions) (Kacewicz et al., 2013a; Pennebaker et al., 2014). People low in analytical thinking tend to write and think using language in a more narrative, informal, and personal way (Pennebaker & Graybeal, 2001).

Past studies show that people strong in analytical writing will engage in more evaluation and reflection, more high-level planning and questioning (Drijbooms, 2016; Lé Onard P. Rivard, 1994), representing that more diagnostic values can be found in analytical writing. Specifically, more diagnostic reviews are considered to be more helpful, and analytical writing which contains diagnostic information is generally deemed to be helpful.

2. Method

2.1. Materials

Text excerpt is taken from online sources (<https://news.detik.com>, April 17th, 2020). Then the data must be analyzed through the selection process. Where the data should be selected to be translated into English and eliminate the abbreviation of Tweet,

and the content of the status itself will be used in testing. After completing the data selection, then the data will be input into the system; LIWC to be counted. The output data (in percentage form) will be processed and analyzed by using Pennebaker theories (Abe, 2011; Groom & Pennebaker, 2002; Pennebaker, 2011; Pennebaker et al., 2015). In the final stages of the system will be obtained in the form of a written text that shows the meaning of psychological variables (clout, authentic, and analytic).

2.2. Linguistic Measures by Linguistic Inquiry and Word Count (LIWC)

LIWC is a widely used tool that defines common English words as one of 68 different categories. (Such as pronouns, adverbs, work-related words, religious words, etc.) (McLean et al., 2007; Slatcher et al., 2007). This software accepts frequencies for many words, sorted by type, psychology, and language. The analysis in this study is limited to the personal problems of the initial dictionary and the psychological category of the word LIWC2015, which seems to be the most psychological information. The LIWC classification process involves well-trained judges. The LIWC output shows the number of words in this category as a percentage of the total number of words in the sample letter.

3. Result

Language Extraction from LIWC

This study categorized three dimensions of psychological variables. The psychological group is related to thinking and feeling processes based on semantics, while the linguistic group is related to the structure of sentences, or grammar. The three selected psychological variables are Analytic, Clout, and Authentic. The explanation of the research variables and the reason for selecting each variable are given below. Furthermore, the detailed explanations, including the scales and calculation methods, are explained in Table 1.

[Psychological variables]

- Analytic: The level of formal, logical, and hierarchical thinking. Reviews containing analytical thinking are assumed to be more helpful, especially for information-intensive search goods.
- Clout: The level of expertise and confident thinking. Reviews containing more professional expressions are assumed to be more helpful for complex products, such as hi-tech electronic products.
- Authentic: The level of honest and disclosing thinking. Reviews containing more personal expressions and disclosures are assumed to be

more helpful for high-involvement goods, which customers consider as their representatives

The overall procedure and research methodologies used in this research are explained step by step in this section. In the first step, the extract of the text dataset was transformed into a numeric form. In order to do this, each word in the text was searched from LIWC dictionary file. In this way, the resulting scores of explanatory variables, explained in Table 2, were produced. Figure 1 shows how target words were categorized using LIWC 2015 and, in the next section, the resulting scores of the text representing psychological and linguistic characteristics are presented.

Variable	Explanation	Calculation
Analytic	Level of formal, logical, and hierarchical thinking scaled from 0 to 100. Lower numbers reflect more informal, personal, here and now, and narrative thinking.	Derived based on previously published findings from (Chung & Pennebaker, 2015)
Clout	Level of expertise and confident thinking scaled from 0 to 100. Low Clout numbers suggest a more tentative, humble, and even anxious style.	Derived based on previously published findings from (Kacewicz et al., 2013b)
Authentic	Level of honest, personal, and disclosing thinking scaled from 0 to 100. Lower numbers suggest a more guarded, distanced form of discourse.	Derived based on previously published findings from (Newman et al., 2003)

Table 1. Explanation of the Psychological variables.

In a view of psychological perspective proves that function language usage reflects and is a dependable marker of personality and a variety of mental processes, cognitive thinking styles and psychological states (Tausczik & Pennebaker, 2010). Text excerpt of Ahok's statements was the data for this study.

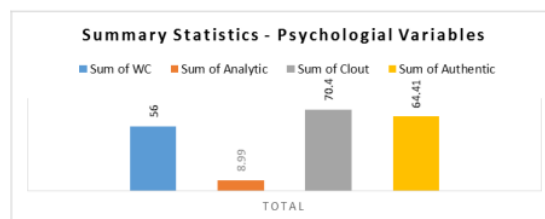


Figure 1. Words Count Data of the Text

Figure 1 shows the number of words most frequently displayed in the text of Ahok's statements. The source text was first calculated and processed, and the extracted text was compiled without punctuation, numbering, common words, etc. The main focus is on three main functions (psychological variables); Clout, Authentic, and Analytic to indicate which language Ahoks' are using. Although each word that appears from other attributes usually represents what can be displayed with the three features.

Since the example of this paper was taken from the first language source (Indonesia), it is important to consider in advance whether they have language features or not, encoding, deletion, etc. It was performed for initial data processing.

Sum of WC	Sum of Analytic	Sum of Clout	Sum of Authentic
56	8,99	70,4	64.41

Table 2. Summary statistics, LIWC analysis of Ahok's Text Excerpt

Table 2 shows the usual variability for text data ordered by Ahok's statements, where the total word counts were 56. This guides that variability is an important metric to amount when evaluating new models. How much text is sufficient? That be influenced by the required care, and whether an average or entire measure of variability is required. In general, longer message size is required to make the output of the data analysis be assured, dynamics, and thoroughgoing.

In this study, summary statistics are displayed as follows: 1) WC: the number of words in the review. 2) Analytic: "Analytic" value in LIWC suggesting formal and logical thinking patterns. 3) Clout: "Clout" value in LIWC suggesting leadership and confidence. 4) Authentic: "Authentic" value in LIWC suggesting a more personal, honest and true text.

As shown in table 1, it was found to be significantly higher in clout and authenticity. Interestingly, contrary to both variables, analytical thinking is low. Hence, it will be interesting to be explored related to the hidden meaning of the

controversial statement by Ahok. This might be important because there are not many studies that examine this case from the direction of psychological variables through the perspective of forensic linguistics using computerized text analysis.

4. Discussion

LIWC was applied to analyzed the transcript (Pennebaker & Booth, 2016). LIWC uses more than 2,300-word counting strategies or keywords in each text file. This study is divided into three areas according to linguistics: clout, authenticity, and drives. After counting the number of words in the text for each category, the results will change the estimated number to a percentage of the total number of words.

This result suggests that the writer (Ahok) involves in more informal, construction and narration of Ahok's statement prepared by considering the segmentation of listeners who are the majority of ordinary people and with informal situations. In the context of the time, Ahok's direction of thinking tended to be based on understanding outside the essence of religion (theology). Using an anonymous subject as a narrative media by not making the Al Quran as the main target. Besides, a low analytical level also means that something delivered at that time was not planned (spontaneity). So it is unlikely that there is an intention or intentional element to harass or blaspheme religion.

Interestingly, the writer (Ahok) was found to have a higher authenticity in the texts. Given how analytical thinking is measured in LIWC (Newman et al. 2003), higher authenticity is possible since the writer (Ahok) has responsibilities for his behavior and often associated with credibility and trustworthiness. However, the context of analytical thinking, lower than others, may simply mean that the writer (Ahok) is more likely to speak from a positive perspective because he talks more about the objects rather than the theology point of view. Logical thinking patterns and more positive, presenting information coherently and consistently with positive attitudes (Fong et al., 2017; Gojkov et al., 2015). This

could be one of the reasons why his attitudes and actions are perceived as more helpful.

Besides, the writer (Ahok) was also found to have higher clout in text than authentic and analytic. Given how clout is measured in LIWC, one probable interpretation for the higher clout is generally more confidence, leadership and social status. In fact, as a leader with higher confidence showing his certainties on the information presented. The delivery of this kind of confidence can be reflected by the expertise revealed in their writing and speaking. The confidence of someone that comes with the expertise also has a positive effect.

In the order of the language, the interesting thing to be noted is active-passive sentences. The active sentence is given precede the passive voice because theoretically, the active sentence is the basic sentence whereas passive sentences are sentences derivatives through the passivation process (Davies, 2008). In this case, both active and passive forms are generally the same, then that distinguish passive construction does not require the performer (subject). Through the use of passive sentences, the subject cannot be present in texts or utterances, something that is not in active structured sentences (van Dijk, 1993). The interpretation is being lied to using Surah Al-Maidah "by" the perpetrator, and Al-Maidah as a tool in that context. These subjects can differ, it can be intellectuals, politicians, political rivals of Ahok, basically anyone who often mentions Al-Maidah to oppose Ahok to become Governor.

With this framework, people finally only think of Surah Al-Maidah rather than the offenders, whereas perhaps Ahok's intention to convey this is to show the listener at that time that the verses of the Qur'an have been politicized. As a result of Ahok's mistake in choosing sentence construction, the offender could hide because he did not receive adequate attention. If Ahok used the Active sentence, it might be different. With the consequence that Ahok must mention the offenders who used the Surah Al-Maidah to untruth.

On the other hand, the grammatical definition of violation is crushing, degrading (degrees and so on). Some legal experts prefer to use the word reproach

rather than insulting, the difference in terms is caused by the translation of the word *smaad* from the Dutch language. In general swearing religion is behavior, actions that insult and/or demean certain religions.

In the Criminal Code (KUHP) there is a crime that is categorized as an offense against religion, which is Article 156 of the Criminal Code to regulate someone who intentionally expresses feelings of hostility, hatred, or contempt of an Indonesian people or groups. After the promulgation of Law No. 1 / PNPS / 1965 concerning Prevention of Abuse and or Blasphemy in Religion, then the Criminal Code added Article 156 a. The general explanation that can be seen from the regulation aims to protect the peace of every person in religion from blasphemy to religion or teachings that do not embrace religion (Martijn, 2017; Vergani & Bliuc, 2018).

In the case of blasphemy by Basuki Tjahaja Purnama (Ahok) with case verdict No. 1537 / Pid.B / 2016 / PN.Jkt Utr., The judge ruled that Ahok was proven to have committed a criminal act in public stating feelings of hostility, hatred or contempt for an Indonesian people group, as stipulated in Article 156 of the Criminal Code. Some experts claim that there are an independent meaning and implication, about an independent meaning there is the intention that everyone speaks must be deliberately thought out and comes out into speech production (Bassetti & Cook, 2011; Hobson et al., 2018; Olsson, 2004; Torkey, 2006). Whereas implicature is a term of expert knowledge, some expressions are revealed as meaning is understood, each utterance has a meaning, so the choice of words to be utterances is not normal, but if the choice of words that we focus on is a lie, it is clear that it is negating the positive meaning, negating the positive meaning, in other words, the negative word itself (Benotti & Blackburn, 2001).

Cases related to language in court are quite complex, which can be in the form of blasphemy, defamation, threatening acts, and so on. The forms of language that are the focus of disputes can also vary in terms of the use of affixes, the meaning of words, phrases, sentences, and discourse. The form of language in the form of discourse also varies in

realization, can only consist of two or three sentences to dozens of sentences as contained in the letter, even can consist of thousands of sentences as contained in a book. The form can be either oral or written language.

Thus, the meaning of speech is a complex matter so interpreting it needs to be seen from various perspectives (Beard, 2018; Fomin & Yakimova, 2016; Kamaruddin et al., 2012; Pennebaker, 2017; Waskita, 2014). At least, four main points that must be considered in understanding the meaning of speech. These four things are (a) the form of packaging or textual aspects of speech, (b) speech participants, (c) in what context the speech is delivered, and (d) the cultural norms that surround it.

To interpret the meaning of an utterance, the first step that must be taken is to look at the textual aspect of the utterance, namely analyzing the utterance in terms of grammar. In this step, the linguistic unit that is spoken is identified. For example, speech is delivered in sentence form. After the speech is identified its form, then further analysis is carried out, for example, the type of sentence (news sentence, question, command) is identified, what words compose it, how the lexical meaning of the words, how the grammatical meaning, and also need to be considered speech- the speech that precedes and follows it (Benotti & Blackburn, 2001; Farinde et al., 2015; Krauss & Morsella, 2000; Kredens, 2016; Nakane, 2011; Waskita, 2014).

By analyzing speech from this grammatical aspect, the textual meaning of speech can be expressed properly (Gee & Handford, 2012; Pennisi, 2016). As an example of the saying "*Jangan mau dibohongi pakai ayat itu.*" Judging from the textual aspect, the speech is in the form of a sentence, a type of negative command sentence or a prohibited sentence (there is no word in it). The sentence consists of six words, and when viewed according to the direct elements, the constructor consists of three parts: *jangan, mau dibohongi, dan pakai ayat itu.* The element does not mark the meaning of the prohibition, want to be lied to be the main verb in the form of passive, and use the verse to declare the

meaning of the tool. The deceived verb is derived from the active verb of lying which is a transitive verb. Because it originates from a transitive verb, the verb lied to requires two arguments, namely the perpetrator and the sufferer (the person who deceived and the person who was lied to) which semantically exists, but does not appear explicitly in the speech. If the analysis of textual meaning, results in the conclusion that the speech is ambiguous - who / what the actor is lying about or the tool - his ambiguity can be explained by paying attention to the other utterances that accompany the speech. Or, the ambiguity can also be explained by paying attention to the context.

When interpreting an act included in the category of blasphemy, law enforcers, especially prosecutors and judges, are very dependent on the statements of the experts who provide information in court.

5. Conclusion

Given the complexity of linguistic issues at the court hearing, it is not possible for a linguist to be an expert witness in all types of cases. Many sub-disciplines in linguistics must be mastered to explain various types of language disputes. For example, to explain whether an utterance contains an element of contempt or not, expertise in pragmatics and other relevant fields is needed. To explain whose speech is contained in a recording, expertise in phonetics is needed. To explain the difference in the meaning of words, expertise in the semantic field is needed, especially lexical semantics. And, it seems very difficult for a linguist to be a pragmatic expert, semantic expert, and phonetic expert. That does not include other cases that require an explanation from different linguistic sub-disciplines.

Although the explanation of linguistic cases in court requires an approach of linguistic sub-discipline that varies depending on the type of case, there are several prominent linguistic sub-disciplines, which are often used in explaining linguistic cases in court. If the cases of language disputes in the dominant court are cases such as insults, defamation, threats, defamation, and the like, semantic linguistic sub-

disciplines, pragmatics, sociolinguistics, and anthropological linguistics are linguistic sub-disciplines that have a lot of roles in explaining the language dispute. Without ignoring the role of other linguistic sub-disciplines. The phonological, morphological, and syntactic linguistic sub-disciplines which are sub-disciplines in micro linguistics or core linguistics are also very important because all analyzes in other linguistic sub-disciplines can be said to start from the analysis in these three sub-disciplines.

This study examined the construction of psychological variables on Ahok's statement from a forensic linguistic perspective in terms of analytical thinking, authenticity, and clout. The findings suggest that the writer (Ahok) is higher in clout and authenticity. However, he is lower in analytical thinking, which may be interpreted as being more personal and informal. Language can open meanings that cannot be analyzed using the study of other disciplines. Moreover, the combination of language study with computerized text analysis can be used as a new way to analyze the hidden meaning behind a speech or written text for legal cases in Indonesia.

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