

The President's Expression: Analyzing the Psychological Aspects of Susilo Bambang Yudhoyono's Lyrics

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Abstract

Word and text analysis has become an alternative method to examine social and psychological problems when other common methods could not access the internal workings of a participant's psyche. This study shows that text analysis, as an alternative method, is capable to identify important psychological aspects contained in the song lyrics written by Susilo Bambang Yudhoyono (SBY) with regard to his strategic role as a country and political leader. Three main aspects are identified: emotion, achievement, and harmony. The lyrics of 23 Indonesian songs written by SBY have been gathered for the purpose of analysis. Three studies were carried out to analyze the psychological aspects contained in SBY's song lyrics. Firstly, the author applied *algoritma kata* (AK – word algorithm) to identify the degrees of valence and arousal in each song using the word count method. Secondly, the author applied *analisis lirik keseluruhan* (ALK – the whole lyric analysis) to assess the valence and arousal in every song by means of human judgment. Third, the author applied expert judgment (EJ) to analyze the dominant words that emerge in all song lyrics. This study shows that SBY's song albums have consistently shown a positive valence and an increasing level of arousal from 2006 to 2014. In addition to that, EJ method shows that those dominant words represent SBY's two most prominent psychological aspects: achievement and harmony.

Ungkapan Hati Presiden: Analisis Aspek Psikologis pada Lirik Lagu Susilo Bambang Yudhoyono

Abstrak

Analisis kata dan teks telah menjadi sebuah metode alternatif yang dikembangkan untuk mengidentifikasi permasalahan sosial dan psikologis ketika metode penelitian lain tidak dapat mengakses partisipan. Studi ini menunjukkan bahwa analisis teks melalui lirik lagu menjadi sebuah metode yang mampu mengidentifikasi tiga aspek psikologis penting dari Susilo Bambang Yudhoyono (SBY) sebagai pemimpin negara dan partai politik. Aspek-aspek tersebut adalah emosi, prestasi dan harmoni. Sebanyak 23 lagu berbahasa Indonesia yang ditulis oleh SBY dikumpulkan untuk kepentingan analisis. Tiga studi dilakukan untuk menganalisis aspek psikologis dalam lirik lagu SBY. Pertama, analisis dengan instrumen algoritma kata (AK) dilaksanakan untuk mengidentifikasi valensi dan *arousal* dalam setiap lagu dengan metode *word count*. Kedua, analisis lirik keseluruhan (ALK) dilaksanakan untuk mengidentifikasi valensi dan *arousal* di setiap lagu dengan penilaian manusia. Ketiga, analisis *expert judgment* (EJ) dilaksanakan untuk menilai kata yang paling sering muncul pada lagu SBY. Studi menunjukkan selama tahun 2006 hingga 2014, album lagu SBY memiliki muatan valensi positif yang konstan dan peningkatan level *arousal*. Sedangkan analisis EJ menunjukkan bahwa kata yang paling sering muncul pada lagu SBY menggambarkan aspek prestasi dan harmoni yang merupakan cerminan dari SBY.

Keywords: achievement, emotion, harmony, lyrics, SBY, word algorithm

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1. Introduction

In spite of his numerous duties and responsibilities as the executive leader of a country, Susilo Bambang

Yudhoyono, the sixth President of Indonesia, has a unique way to express his feelings through music and songs (Nugroho, 2011). Playing music and writing songs have apparently become SBY's most preferred

ways of reducing the tension and stress which resulted from his considerable duties and responsibilities as a state's head of government. According to one of the articles posted on the President's official website during his two terms of office from 2004 to 2014, SBY once said that "at rare moments of peace, even in the midst of so many challenges and predicaments in my effort to fulfill all of the responsibilities that the people have entrusted to me, once in a while I feel the need to express my feelings in works of art." Four song albums and one instrumental album were released during SBY's presidency, and they have served as a positive evidence of SBY's passion for music and song-writing. During his two terms of presidency, SBY was able to compose 23 songs in Indonesian and three songs in English.

SBY was born in a village in Tremas area, Arjosari, Pacitan, East Java, on September 9, 1949 to Raden Soekotjo and Siti Habibah. Raden Soekotjo was a renowned first lieutenant who was also a descendant of one of the founders of Pondok Pesantren Gontor (Gontor Islamic Boarding School) in Ponorogo. His wife, Siti Habibah, was the daughter of one of the relatives of the leaders of Pondok Pesantren Tremas (Tremas Islamic Boarding School) (Nainggolan, 2004). SBY was their only child, and Javanese noble blood flows in his veins. Raised as a soldier's son, SBY has been familiar with military life and army principles ever since his childhood. In 1970 SBY decided to follow his father's footsteps and entered the Armed Forces Academy of the Republic of Indonesia (*Akademi Militer Republik Indonesia* or Akabri). SBY has a very bright military career, which is evident from various types of military education which he received in several countries, such as the United States, Panama, Belgium, and Germany. In 1991, SBY obtained a Master's degree from the Management Webster University, Missouri, the United States. In the recognition of his achievements, he then received the *Bintang Kartika Tanggon Kosala* and *Bintang Kartika Ati Tanggap*, two of the most prestigious military Medals of Honor. Upon completing his military career, SBY then started his political career as the Minister of Energy during the administration of President Abdurrahman Wahid. In 2004, partnering with Jusuf Kalla, SBY ran for presidency in the first direct presidential election in Indonesia. He and Kalla were nominated by the Democratic Party (*Partai Demokrat*). SBY then won two consecutive presidential elections and was renowned as the sixth President of Indonesia.

In consideration of SBY's important role as the leader of a country, as well as the leader of a political party, a scientific examination of SBY's psychological aspects is necessary in order to understand the way psychological variables might assert influence on SBY's ability to make decisions as a country's and a party's leader. As a leader, SBY is responsible for making strategic decisions for the benefit of his country in accordance with the

1945 Constitution of the Republic of Indonesia, as well as for making important political decisions which may determine the direction of the Democratic Party until 2020 in accordance with the Law Number 2 of 2011. SBY's strategic decisions on state management will be translated into various public policies and bills which will be presented to the People's Representative Council, while his important decisions on the party's management will directly affect the position of the Democratic Party within the People's Representative Council, as well as their electability at both regional and national level elections. From a psychological perspective, it can be surmised that any psychological problem that SBY may experience will affect or, to some extent, even impair his ability to make the best decision for the benefit of the country, as well as the party. Such condition will certainly exert negative impacts on both the Indonesian people in general and the Democratic Party in particular.

From the perspective of psychology, an individual's ability to make decisions is strongly related to various emotions which may arise in certain situations (Vohs & Baumeister, 2007; Heilman, Crisan, Houser, Miclea, & Miu, 2010), to the individual's cognitive capabilities (Li, Baldassi, Johnson & Weber, 2013; Mata, Ferreira, & Sherman, 2013), and to the individual's sense of belonging, which might contribute to strengthening a group's cohesiveness (Badie, 2010). We therefore select and use those three psychological aspects as our research variables. In our effort to gain insights into SBY's psychology in terms of those three aspects, we came to a conclusion that common research methods available today are not effective enough to identify those aspects because of the multitude of variables which may affect the result, such as palace protocols and influences from the staff, as well as various other socio-political determinants surrounding his presidency which have contributed to enhancing SBY's public image. In order to avoid such unfavorable results, new methods must be constructed to overcome the limitations. In our opinion, word and text analysis might serve as the best way to achieve the goals of our research.

Word and text analysis was firstly developed in 1999 by applying various instruments. Pennebaker and King (1999) conducted a study to analyze various types of texts written by many participants, which include daily diaries written by 15 drug addiction patients, daily essays written by 35 first-year college students, and academic abstracts written by 40 psychologists. Besides that, there is also a study by Bradley and Lang (1999) which gathered a set of English words from random sources in order to measure their degree of valence, arousal, and dominance. This research was conducted by recruiting participants who then assessed each word based on their own perception. The number of studies which employ word analysis as a research instrument keeps increasing ever since, covering various sources

and types of writing such as the diary of a famous Australian explorer, Henry Hellever (Baddeley, Daniel & Pennebaker, 2011); fragments of the diary of a famous actress, Marilyn Monroe (Cabana, Caballero, Perez, Garcia, & Mateos, 2013); and popular American songs which contribute to the construction of American culture (DeWall, Pond, Campbell & Twenge, 2011).

In this study, we use song lyrics written by SBY as the units of our word and text analysis. It has been reported that SBY have always preferred playing music and writing songs as his unique strategies to cope with the burdens of his job, as well as to keep his life in balance (Nugroho, 2010; 2011). In addition to writing songs, SBY has often demonstrated his musical talent on various public occasions, both formal and informal. For instance, SBY sang and played his guitar in front of general audience to celebrate the birthday of Vladimir Putin, the President of Russia, which took place when he visited Indonesia to attend the 2013 APEC Summit (Kawilarang & Dewi, 2013). SBY also entertained Indonesian citizens and colleagues in a state banquet in Timor Leste (Rahadi, 2014). This other facet of SBY's personality has been the subject of some books written by Wisnu Nugroho (2010; 2011); a journalist who works in the Indonesian Presidential Palace has also released photographs depicting some members of the Presidential Security Force (*Pasukan Pengamanan Presiden or Paspampres*) carrying SBY's favorite guitar to various locations, even when the President was attending international events abroad. Based on these facts, we constructed a conceptual framework which can be used to support our argument that SBY's song lyrics can be considered as the reflection of SBY's cognitive processes and emotional dynamics. Kacewitz, Slatcher, and Pennebaker (2007) argue that every text on a particular topic which results from a dynamic interplay between an individual's cognition and emotion can serve as a psychological clue to understand the individual's psychological condition. This theory is called the expressive writing paradigm. In a study which seeks to examine the relationship between SBY's music and his psychology, we believe that song lyrics can serve as a powerful unit of analysis, as well as a suitable instrument, to gain insights into an individual's psychological condition.

A study of the psychological contents of song lyrics which aims to identify an individual's psychological aspects has been conducted by Petrie, Pennebaker, dan Sivertsen (2008), who used song lyrics written by members of The Beatles. The Beatles were chosen because of their significant contribution to popular English culture, particularly from 1960 to 1970. An analysis of song lyrics was performed to understand how they brought about changes within the British society and to gain insights into the psychological condition of each songwriter. In this study, The Beatles' lyrics were analyzed using two instruments: the Linguistic Inquiry and Word Count (LIWC) and the Latent Semantic

Analysis (LSA). On the one hand, LIWC was used to analyze the emotional dynamics and cognitive development of the band's members from time to time by identifying "unique" words contained in their lyrics. On the other hand, LSA was used to identify words which are orthographically different but semantically similar.

Viewed from the perspective of emotion, an analysis of The Beatles' song lyrics conducted by Petrie et al. (2008) shows that the lyrics gradually shifted towards negative emotions over the years. Lyrics written together by John Lennon, the band's guitarist, and Paul McCartney, the vocalist, tend to show the highest degree of positive emotions. However, lyrics written by John Lennon alone tend to show a higher degree of negative emotions than those written by Paul McCartney alone. In terms of cognition, lyrics written together by Lennon, McCartney, and Harrison show their gradual cognitive development from 1960 to 1970. This is shown by an increasing use of articles (a, an, the) and of words consisting of more than six letters. Unfortunately, LIWC and LSA cannot be applied in Indonesia because LIWC's and LSA's word banks only consist of English words.

The method applied in this study is similar to that applied in a study of song lyrics carried out by Petrie et al. (2008). This current study seeks to gain insights into SBY's emotional and psychological conditions by examining the lyrics of 23 Indonesian songs which he has written. Three studies are conducted to analyze SBY's song lyrics. The first and second studies are conducted to investigate the emotional content of SBY's song lyrics in terms of valence and arousal. These two aspects constitute the main elements in a theory of emotion called "core affect" (Russel, 2003; 2009). The core affect theory views emotion as a neurophysiologic condition which results from a bipolar combination between two aspects of human emotion: the pole of valence as the reflection of an individual's psychological condition and the pole of arousal as the reflection of an individual's physical condition. The pole of valence can be described in terms of positive vs. negative polarity, whereas the pole of arousal can be described in terms of relaxed vs. aroused polarity.

Our first study is carried out to analyze the aspects of valence and arousal contained in SBY's song lyrics using an instrument called *algoritma kata* or AK ("word algorithm" in English) which was developed by 3000 words collected by Provetic (Wenas, Sjahputri, Takwin, Primaldhi, & Muhamad, 2016). Provetic is an independent research institute outside Universitas Indonesia which deals with social, business, and psychological issues. The AK instrument is basically a word bank which consists of 3,000 Indonesian words and emoticons, each of which are described in terms of valence and arousal. Each word is assigned a particular degree of valence and arousal which is represented by a numerical score.

The distribution of words and emoticons contained in AK can be seen in Figure 1. AK was developed based on the notion of Affective Norms of English Words (ANEW; Bradley & Lang, 1999), a particular concept in the field of word bank development which seeks to identify and assign the degrees of valence and arousal of each English word. AK analysis of SBY's song lyrics is carried out by applying the word count method, which is similar to the LIWC method applied in the study of The Beatles' song lyrics (Petrie et al., 2008). As a method of analysis, word count is performed by gathering from the song lyrics a certain number of "unique words" or keywords as listed in the AK word bank (Tausczik & Pennebaker, 2010).

The second study is carried out by analyzing the degrees of valence and arousal contained in SBY's song lyrics. As the participants of this analysis, we recruited a number of Master's and Doctoral students in psychology. Their job was to assess each song's lyrics as a whole in terms of valence and arousal. This method is called *analisis lirik keseluruhan* or ALK ("analysis of lyrics as a whole" in English), which was also similar to that applied by Pennebaker and Francis (1996) to evaluate essays which were written by 72 first-year college students in three consecutive days. Those students were asked to write about what they thought and felt during the first year of their study at college. Assessment of SBY's song lyrics is carried out by categorizing each song's lyrics into either of the two poles of each aspect of emotion under investigation: positive or negative (in terms of valence) and relaxed or aroused (in terms of arousal). Different from the AK analysis, ALK is carried out by assessing each song's lyrics as a whole to determine their valence and arousal tendencies. This second study is carried out to offset the limitations of AK analysis which does not take account of contextual factors and relies only on a limited number of keywords to assess the degrees of valence and arousal of an entire song.

While our first and second studies investigate the aspects of valence and arousal contained in SBY's song lyrics, our third analysis focuses on two other psychological

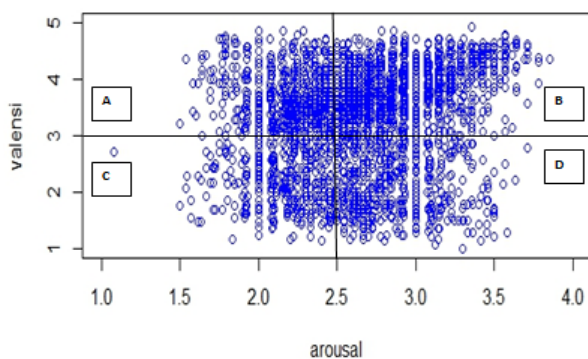


Figure 1. Distribution of Words and Emoticons Contained in the AK Word Bank

aspects which assert a significant influence upon SBY's ability to make decisions. A study which analyzes SBY's personal image as a presidential candidate in 2004 has been carried out by Takwin and Karim (2004). This study argues that, being the only child in his family, SBY has a very high sense "achievement" as his most apparent social motive. In addition to that, as a politician, SBY sees politics as the place in which all social elements must work "together" in "harmony" for the greater welfare of the people. These two aspects have served as the most significant psychological factors influencing SBY's ability to make public and political decisions. In order to answer research questions with regards to the aspects of achievement and togetherness/harmony, our third study seeks to find out whether the ten most dominant words—that is, the ten words that appear most frequently—in SBY's song lyrics are able to effectively reflect the aspects of achievement and togetherness/harmony as SBY's most significant psychological characteristics. The ten most dominant words were gathered using the AK instrument for the purpose of analysis. The ten words were then analyzed using the expert judgment (EJ) method. A principal researcher was recruited to serve as an "expert" who would then analyze SBY's psychological characteristics when he became a presidential candidate in 2004 (Takwin & Karim, 2004). The expert judgment method was also applied as an instrument for assessing the words contained in LIWC's word bank (Tausczik & Pennebaker, 2010).

The application of AK, ALK, and EJ as our principal methods of analysis yields three hypotheses. One hypothesis is related to our methodology, whereas the other two hypotheses are related to our research proper, which is the study of SBY's psychological aspects by means of word and text analysis. The first hypothesis is related to the validity of the analysis method. In addition to answering our principal research questions, this study also seeks to find out whether the word count technique, as a method of text analysis, can produce valid results. In order to test our first hypothesis, the "mono trait mono method" validity test and a correlation test between the analyses using the AL method and the analyses using the ALK method are carried out. The second hypothesis is related to SBY's emotional condition during his two terms of presidency. SBY's second presidency was marked by many events which imposed considerable psychological burden on SBY's part, such as the Century Bank case which struck the Democratic Party (Kristianti, 2011) and the Vice President Boediono (Wedhaswary, 2011), as well as a number of corruption cases which involved the party's prominent figures. This study therefore seeks to find out whether the lyrics of songs which SBY wrote during his first presidency (2004–2008) contain a lower degree of negative valence compared to the lyrics of songs which he wrote during his second presidency (2009–2014). This study is also carried out to find out whether the ten dominant words which are

gathered from SBY's 23 songs lyrics can effectively reflect SBY's two most prominent psychological aspects: achievement and togetherness/harmony.

2. Methods

The collection and filtering of song lyrics. By consulting various media sources, we found out that SBY released four albums during his two presidencies. We collected all relevant data about those albums from a number of Internet sources, such as <http://presidenri.go.id> from which we obtained the lyrics of all songs contained in SBY's first album. However, the site can no longer be accessed now because SBY's presidency has ended. Moreover, the website does not provide the lyrics of songs contained in SBY's second and third albums. Therefore, in order to find information about the title of the second album and the song lyrics, we accessed personal blogs such as <http://ugiq.blogspot.com/2010/01/album-baru-2010-sby-kuyakin-sampai-di.html> by entering the song titles and SBY's name (as the songwriter) into a search engine. The whole music of the second album can be accessed via <http://youtube.com>. Next, we obtained information about the title of the third album and the titles of the songs contained therein at <http://nasional.kompas.com/read/2011/10/31/18094928/>, whereas the complete song lyrics were obtained from <http://www.deezer.com>.

After all of SBY's song lyrics had been gathered, we then proceeded to carry out the process of filtering. This process was carried out by eliminating all lines which are repeated more than once during each song. The same process was also performed by Petrie et al. (2008) before analyzing The Beatles' song lyrics using LIWC and LSA. This process serves as a way to control the result of our AK and ALK analyses.

Emotional content analysis using AK. After undergoing the filtering process, the lyrics of each song were then converted into .txt format in preparation for AK analysis. The analysis of each song was conducted in cooperation with Provetic because AK is still a piece of prototype software which has not been patented or released for public use. As many as 3,000 words and emoticons are contained in the AK word bank. "Words" consist of Indonesian words, whereas "emoticons" refer to symbols which are often used in conversations to express certain emotions, such as ":-)" to represent happiness or gladness or ":-(" to represent sadness or disappointment. Each word and/or emoticon in AK word bank is assessed by fourteen participants in terms of two aspects: valence and arousal. Participants consist of Master's students at the Faculty of Psychology, Universitas Indonesia (UI) who, at the time of this research, were taking the Philosophy of Science course. Table 1 presents some words obtained from the AK word bank and their

respective degrees of valence and arousal. These words appear in SBY's 23 songs investigated in this study.

The analysis of SBY's lyrics through AK was conducted by using the word count method, which is analyzing a text by identifying and counting unique words listed in the AK word bank that appear in every SBY song. The word count method was also used by Petrie, *et al.* (2008) in analyzing The Beatles' songs by using the LIWC instrument. For every song, AK counts the mean values of valence and arousal generated by unique words listed in the AK word bank. The limitation of the word count method is that not all words with emotional content can be analyzed and converted into valence and arousal scores.

Analysis of emotional content through ALK. The ALK analysis was conducted by recruiting participants among students that have completed the undergraduate program majoring in psychology and are taking Master's or Doctoral degree in psychology in Universitas Indonesia (UI). A total of 15 participants were asked to categorize the valence (positive/negative) and arousal (calming/exciting) content by reading through all the lyrics and conducting an assessment. Each participant was asked to assess 5 to 6 songs in different forms. Each song was assessed by three different participants. The tools provided in assessing the songs are a song form, an assessment sheet, and a theoretical guide to valence and arousal (Russel, 2003; 2009). The author also monitored the process and provided explanation if there was anything the participants did not understand.

The assessment was conducted in a classroom at UI's Faculty of Psychology for 14 participants from UI. The lighting, room temperature, and noise level that might affect the participants' concentration were controlled. For one participant who is not from UI, the author visited the participant's home to conduct the assessment. To examine how consistent the participants were in assessing the song lyrics, the author calculated the contingency coefficient among the participants. Contingency coefficient is a non-parametric statistical technique used to identify the degree of association by nominal statistical scale (Siegel, 1956).

Correlation between AK and ALK methods. To examine whether the text analysis by the word count method through AK and ALK analysis generates valid results, the author identifies the correlation between the

Table 1. Examples of Words with Valence and Arousal Content in AK that Appear in SBY's Songs

Word	Mean Valence (SD)	Mean Arousal (SD)
<i>Bersama</i> (Together)	4.30 (1.30)	3.14 (0.77)
<i>Berdua</i> (Both)	3.71 (0.82)	2.41 (1.24)
<i>Bahagia</i> (Happy)	3 (1.12)	4.71 (0.46)

AK method that uses word count and the ALK method in which the assessment of valence and arousal content is conducted by the participants. The technique of correlation between the text analyzed by the word count method and participants' assessment results was also used by Pennebaker and Francis (1996) in examining the external validity of LIWC which is also based on word count. The correlation is made by using the point biserial statistical technique. The point biserial correlation statistical technique can be used for nominal (ALK analysis) and interval statistical variables (AK analysis; Howell, 2010). In psychometric terms, testing by correlating two measurements that measure the same psychological aspects with different measurement methods is called the monotrait multimethod or convergent validity (Guo, Aveyard, Fielding & Sutton, 2008).

Analysis of dominant word relevance with achievement and togetherness/harmony through EJ. Unfortunately, AK as the main analysis instrument is not able to represent an analysis of aspects apart from valence and arousal. To identify the aspects of achievement and togetherness/harmony, 10 unique words with the most dominant occurrence in 23 songs were selected. The words were then assessed by two experts (EJ) to find out their relevance with the aspects of achievement and togetherness/harmony. The two experts are researchers who studied the representation of SBY's self when he was running for president in 2004 (Takwin & Karim, 2004). The instruments used are SBY's songs and the 10 dominant words assessed in a scale of 1 (very unrepresentative) to 5 (very representative).

3. Results and Discussion

Three main questions are posed in the study. The first research question is related to the methodological function of the AK instrument. The second question is related to the difference in valence and arousal during two presidential terms, and the third question is related to how the words in the song lyrics can represent SBY's psychological aspects.

Validity and reliability of AK and ALK methods. A psychometric test on AK and ALK methods was conducted to find out whether the two methods produce a valid and reliable analysis. The intraclass correlation technique is used with regard to the reliability of AK and ALK. For AK, the correlation technique used is the Pearson correlation coefficient, while for ALK the non-parametric statistical technique of contingency coefficient is used to identify association. In the AK method, the word bank in valence has a good and significant reliability score ($r = 0.936, p < 0.05$), while arousal also scores well and significantly with regard to reliability ($r = 0.714, p < 0.05$). In the ALK method, the reliability test also produces a good and significant score for valence ($c = 0.484, p < 0.05$) and arousal aspects ($c = 0.495, p < 0.05$).

After the two analysis methods are found to be reliable, the next step is the correlation test between the results achieved by using the two methods. The correlation technique used is the point biserial correlation for data with nominal and interval statistical scales (Howell, 2010). The correlation results between AK and ALK methods reveal a positive and significant point biserial correlation score for valence ($r_{pb} = 0.679; p < 0.05$) and arousal aspects ($r_{pb} = 0.428; p < 0.05$). The results indicate that the AK method analyzing song lyrics by word count and the ALK method produce a valid and consistent analysis of valence and arousal content.

Valence and arousal during the two presidential terms. The analysis to identify valence and arousal during the two presidential terms uses songs in each album as units of analysis based on the study of Petrie *et al.* (2008). The analysis was carried out using the two methods of AK and ALK on 23 songs in Indonesian in SBY's albums. Three English songs are not included in the analysis due to the unavailability of a valid guide for language adaptation with regard to song lyrics. The analysis on SBY songs are divided into two periods based on SBY's presidential terms. The first period is represented by the album "*Rinduku Padamu*" (2006) and the second period by the albums "*Kuyakin Sampai Disana*" (2010), "*Harmoni Alam dan Cinta*" (2011) and two new songs in the last album (2014). Only two songs are chosen from the 2014 album as the majority of songs in that album were compiled from the previous albums.

The AK analysis results show a relatively constant valence content in songs contained in albums from 2006 to 2014 and an increase in arousal content in songs contained in albums from 2006 to 2014. However, the increase in arousal content in songs between the two periods is not significant as proven through a t-test.

The analysis of SBY's song lyrics by the AK instrument is also combined with the song lyrics analysis by the ALK method. The ALK analysis also shows that in general songs contained in albums from 2006 to 2014 have constant valence content and an increasing arousal content each year. The results of the ALK analysis in Table 2 are illustrated by the frequency of songs with valence (positive/negative) and arousal (calming/exciting) content. Just like the song lyrics analysis by AK, a chi-square test was conducted to identify whether the difference in valence and arousal content is significant. The results reveal that the difference in valence and arousal level in songs contained in albums from 2006 to 2014 is not significant.

In order to answer the hypothesis of whether the second album has a higher negative valence than the first album, the t-test and chi-square test in Table 2 and Table 3 were examined. The two statistical techniques generate values that are not significant. In conclusion,

the hypothesis of a higher negative valence in the second presidential term is not supported by the data from the AK and ALK analysis.

Dominant words and SBY's psychological aspects. In examining which dominant words represent the aspects of achievement and togetherness/harmony, each word was assessed by the two experts in a scale with regard to the two psychological aspects. Each word would have a mean value for the two psychological aspects. Any word with a higher mean value than the median value (>3) is considered to represent the psychological aspects. Figure 2 and Figure 3 show 10 dominant words from the AK word bank that appear in SBY's songs and their frequency of occurrence. The Figures only describe top 5 most frequent words in the left side. The value in brackets indicates the words' frequency of occurrence in the 23 songs.

The expert assessment with regard to the aspect of achievement identifies that 8 (vs2) dominant words are related to achievement. The dominant word with the

highest score and related to achievement is "terus" (continue), which appears 11 times in 23 songs, whereas other words related to this aspect are "indah" (beautiful), "ingin" (want) and "mari" (let's). One word, "kasih" (affection or love), is not related to achievement, while another word, "bersatu" (unite), has a neutral content. With regard to the aspect of togetherness/harmony in Figure 2, the expert assessment identifies that all 10 dominant words represent that aspect. Three words score the highest for togetherness/ harmony, which are "hidup" (live), "bersama" (together), and "mari" (let's). The results of the EJ analysis indicate that there are dominant words relevant to the two psychological aspects related to SBY. In conclusion, the data support the third hypothesis.

Word and text analysis as an alternative research method. The analysis of SBY's song lyrics is an alternative method that can be done when there are too many variables that may affect the participants' responses. In the context of this study, SBY's official role as a President cannot be separated from the political influence of creating a positive image. This means that

Table 2. Valence and Arousal in SBY Song Lyrics by AK

Album	Mean Valence (SD)	Mean Arousal (SD)	t-test
<i>Rinduku Padamu</i> – 2006 (9 songs)	3.80(0.13)	2.47(0.18)	Valence t(21) = .367 p > 0.05
<i>Kuyakin Sampai Disana</i> – 2010 (7 songs)	3.79(0.11)	2.57(0.13)	Arousal t(21) = 1.44 p > 0.05
<i>Harmoni Alam dan Cinta</i> – 2011 and two new songs in the 2014 album (7 songs)	3.86(0.29)	2.62(0.26)	

Table 3. Valence and Arousal in SBY Song Lyrics by ALK

Album	Valence		Arousal		t-test
	Positive	Negative	Calm	Excited	
<i>Rinduku Padamu</i> -2006 (9 songs)	6	3	7	2	Valence $\chi^2(4) = 6.87$ p > 0.05
<i>Kuyakin Sampai Disana</i> -2010 (7 songs)	7	0	1	6	Arousal $\chi^2(4) = 0.34$ p > 0.05
Combined Albums 2011-2014 (7 songs)	7	0	2	5	

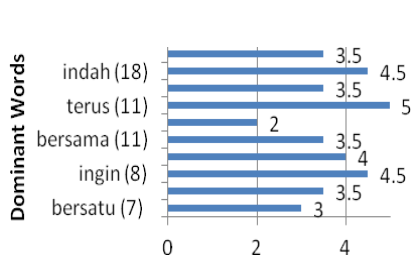


Figure 2. The Mean Value of 10 Dominant Words in SBY's Song Lyrics with Regard to Achievement

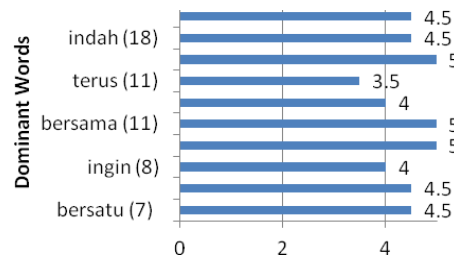


Figure 3. The Mean Value of 10 Dominant Words in SBY's Song Lyrics with Regard to Togetherness/harmony

the political influence from the presidential circle, such as SBY's expert staff in political communication, has a high possibility of influencing SBY's response when regular methods such as interview and/or self-report questionnaire are used to identify his emotional state. In addition, the President's circle of protocol may also affect the data collection if it has to be done more than once. The validity test by comparing AK and ALK analyses indicates that the word and text analysis with a strong theoretical foundation can be an alternative methodological approach to gain empirical evidence on SBY's psychological aspects throughout his two presidential terms without any extraneous variables that may affect the research results. In conclusion, the method of the word and text analysis can be a viable alternative in the presence of various obstacles that may affect the research results by common research methods, such as self-report, observation, interview, or experiment.

SBY, music, emotion, values, and decision-making.

The analysis of SBY's song lyrics in the emotional aspect reveals that there is no different emotional dynamics from 2006 to 2014. This result does not support the main hypothesis of this research. The author expected that songs contained in the 2010-2014 albums would have a higher negative valence than those in the 2006 album, because based on media reports, SBY experienced higher psychological pressure during his second presidential term. However, this does not mean that the song analysis result is meaningless. When examining SBY's motivations in writing songs, it is revealed that not all lyrics written by SBY are related to this role as a President. Some songs were penned because of his wife's suggestion for him to write songs about children, such as the song "*Aku Cinta Anak Indonesia*" (Fadillah, 2012). Furthermore, there is also a song with positive emotional content about SBY's memories of the first time he met his wife, which is "*Malam Sunyi di Cipaganti*" (Artika, 2004).

As music and songwriting become an important part of SBY's life, song lyrics can be a window to understand his psychological condition. This study also provides empirical evidence in contrast with SBY's popular stereotype as a President who frequently experienced an unstable emotional state. This emotional instability is often seen to be represented by the tendency to "pour out his heart" by venting his concerns to the public (Rakhmatulloh, 2014). The results of the analysis of emotions in SBY's songs actually reveal that his valence was in a level of excitement. This study indicates that his tendency to vent his concerns to the public is not an implication of emotional instability within himself.

Apart from emotion, this study also examines the aspects of achievement and togetherness/harmony in SBY by analyzing the dominant words that appear in his songs through the word count analysis based on AK. The

EJ analysis on achievement and togetherness/harmony was conducted because the two aspects play an important role for SBY as a state leader in making important decisions. The aspect of achievement can be related to intellectual capacity and plays a major role in decision-making (Li, Baldassi, Johnson & Weber, 2013; Mata, Ferreira & Sherman, 2013). Meanwhile, SBY's view of politics as togetherness/harmony that he always upholds may lead to the phenomenon of group thinking, in which the desire for harmony or cohesiveness in a group results in a dysfunctional decision-making outcome (Badie, 2010). The EJ analysis results reveal that more than 5 dominant words can represent the aspects of achievement and togetherness/harmony, but the words related to togetherness/harmony exceed those that represent achievement. The words related to achievement describe SBY as an intelligent former Armed Forces (TNI) general with good cognitive skills, one of the best graduates of the Armed Forces academy in 1973, and a respected figure in the international world who has received various awards (Nainggolan, 2004), while the words related to togetherness/harmony describe SBY's attitude of wanting to protect all parties and prevent anyone from suffering a disadvantage due to his policies (Takwin & Karim, 2004).

4. Conclusions

The study as a whole shows that SBY is an individual with stable emotions and sound cognitive and problem-solving skills. With a combination of stable emotions and sound cognitive skills, he should have been able to make the right decisions for Indonesia. However, self-analysis, public perception, and media reports state that SBY is an individual that is always in doubt and slow in making decisions (Takwin & Karim, 2004; Ikhbal, 2014; Raharjo & Sukmawati, 2014; Andwika, 2015). This is also highlighted in the research by Takwin and Karim (2004) that analyzed SBY's character as an only child and an individual with the personality of a "doubter". This study of song lyrics tries to examine SBY's personality as a doubter through the aspect of togetherness/harmony. The EJ analysis results show that the dominant words captured by the AK analysis fully represent that aspect. The EJ analysis results in which the majority of unique words score high for togetherness/harmony indicate that SBY's doubts in the context of decision-making do not arise from a fluctuating emotional state or a lack of problem-solving abilities, but the view that all parties must have something to gain from each policy. An example is the decision to raise fuel prices that was delayed repeatedly when SBY was the President (Koehr, 2014). By using the results of this study, such attitude can be perceived as a consideration for the various parties that might be disadvantaged when fuel prices are raised. The main conclusion of this study as a whole is that the word and text analysis in Indonesian can be an alternative method

to review the psychological condition of SBY as an individual. This research indicates that a further study with regard to the word and text analysis in Indonesia should be developed by using various text sources.

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