

Special issue 3/ Well-being in politics, economy, and culture: multi-layered and multi-dimensional theory and empirical analysis

Text Mining Analysis of President Trump's Twitter: A Nexus with Societal Wellbeing

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1. Introduction

This brief paper makes a text analysis of US President Donald Trump's Twitter, and investigates the nexus between his America-first policy and societal wellbeing. As is well recognized in the field of moral philosophy, there is an indispensable linkage between the social wellbeing and moral sentiments (Smith, 1759). When lawmakers, especially the world's leading political figures including the US President, do not perceive the benefit of an open society in the form of, e.g. free trade rather than mercantilism or protectionism (i.e., restrain imports), the society at large would be influenced by the protectionist sentiment. Paying attention to the current US President Mr. Trump's personal remarks would therefore be important to consider the linkage between his own personal traits and the global society's protectionist

sentiments. Section 2 makes an analysis of President Trump's Twitter. Section 3 supplies comments on President Trump's socio-psychological impacts. Section 4 concludes this paper with some remarks on the protectionist traits of the contemporary global community.

2. Analysis of President Trump's Twitter

This section uses the tool for text mining analysis which was developed by NTT Mathematical Systems (Japan). Generally speaking, text mining or text analytics means turning unconstructed text data into high-quality information or actionable knowledge (Zhai, 2018). By applying a specific algorithm, we can extract meaningful information, which could be very useful for making sense of the linkage between the text and the social context it is in. Above all, content analysis is widely applied in social science studies (Yu, 2015). It classifies those words in a prepared document (or corpus) through detecting encoding rules to give them a new order¹. Content analysis has a great value in observing any change in public opinions (Stemler, 2001).

As President Trump has been making extensive use of social networking services, most notably the Twitter service, we have extracted his tweets for language analysis. Deep natural language processing (NLP) requires common sense knowledge (e.g., about trade policy and its status), which we would supply. NLP-based on statistical methods can be done using his tweet texts and is this the main topic here. In this study, we are going to use statistical NLP as the basis and we will have human interpretations as needed.

We have extracted President Trump's tweet text for the period 6 July

¹ Usually, the setting up of a dictionary or lexicon is a part of the content analysis, and those collection of words or dictionary can help you look up and extract specific words out of the documents, and then conduct statistical analysis on them, such as frequency analysis, matching and so forth.

Figure 1. Word frequency analysis of President Trump's Twitter

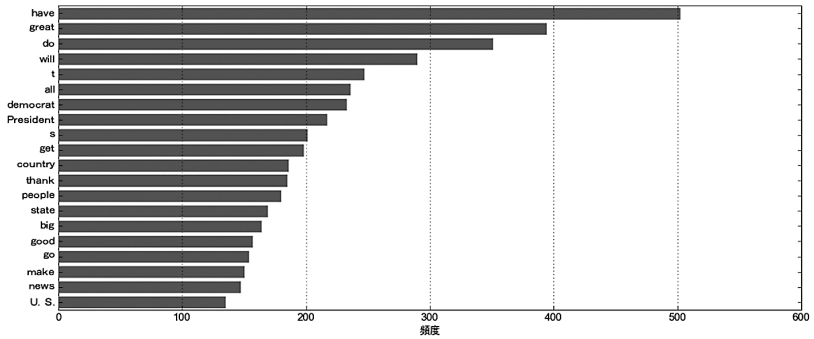
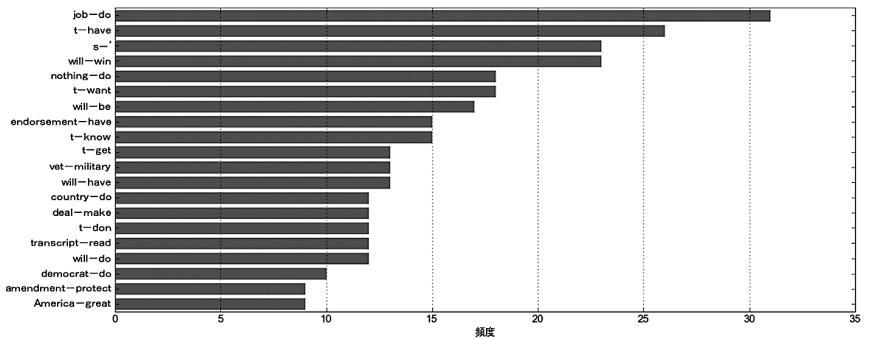


Figure 2. Frequency analysis of modifier-modified



Source: Made by the author based on Derrida (1974).

2019-8 November 2019, and the total number of words are 65,817. The basic analytical settings are as follows: those words with a frequency of at least one (no upper limit), words containing at least one character (no upper limit), and words repeated on the same line are counted just once; and the top 30 words that meet these requirements were extracted. Next, keywords of interest were analyzed as a figure of word-network. In this analysis, word combinations that are used at the same time, within the same chapter or line (within one Twitter comment) are extracted, showing the kinds of expressions in which

the words at issue were used, and the other words and attributes that appear at the same time (co-occur).

Figure 1 shows the results of the word frequency analysis. The highest frequency word “have” has the association of “having achieved”; the word “great” follows it. The word “will” is also frequent, showcasing his strong leadership. Combined with Figure 2 which counts frequency of word combinations of modifier-modified, President Trump emphasizes he is “do(ing)” a “great” job.

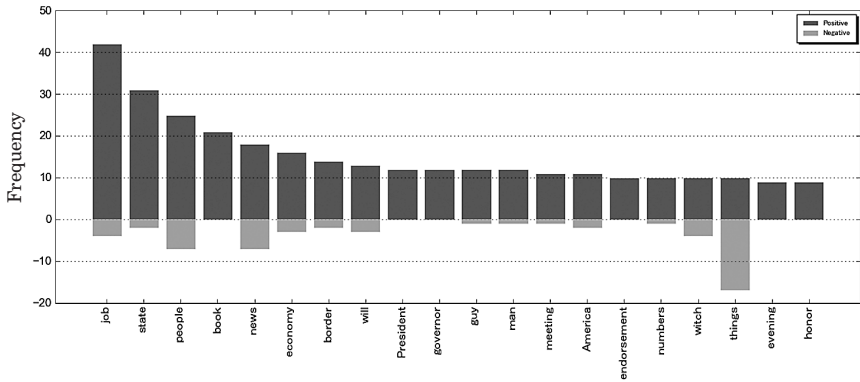
Next are the figures that make use of evaluation of words that are modified with positive or negative connotations in the text: positive rankings (Figure 3), and negative rankings (Figure 4) are shown. In the evaluation, for each word, the numbers of instances of positive and negative expressions were each counted, and a ranking based on those counts was created. Figure 3 shows that President Trump uses the word “job” positively to emphasize that he is doing a great “job” for the “people” of the US.

Figure 4 shows the negative words; “vet” or (war) veterans are negatively evaluated; this is presumably because of the co-occurring word “military” which is taken as negative.

Finally, a network diagram is generated after extraction of words with the following conditions: co-occurrence extraction setting and minimum coefficient of confidence of 60, five or more occurrences, a maximum of 100 instances and without “be verbs”. In the diagram, if an arrow is drawn from a word A to a word B, that indicates that when word A has appeared in a line (or a sentence), word B has a high probability of appearing in the same line (or sentence). Furthermore, the thickness of the arrows between the words are determined by their coefficient of confidence, and the size of the nodes corresponds to their frequency or number of appearances.

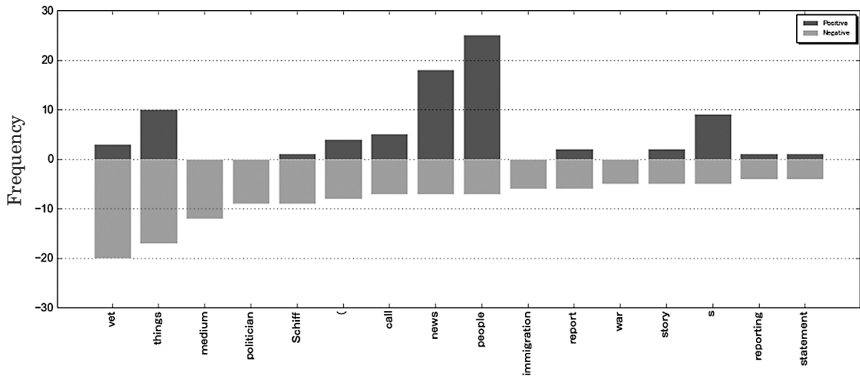
The results are shown in Figure 5. Arrows are drawn from the evaluative word to the word being evaluated. The largest node (corresponding to the

Figure 3. Ranking of positive words



Source: Made by Yuki Tashiro based on the Twitter account of President Donald Trump.

Figure 4. Ranking of negative words



Source: Made by Yuki Tashiro based on the Twitter account of President Donald Trump.

greatest frequency) is the word “great”, showing that the great job that President Trump is doing for great America is a focus of his tweets. The issue of illegal immigrants, once a big issue before and at the US presidential election, appears in the diagram, yet in a minor and separate manner. Also, “dishonest” and “corrupt” media and news are mentioned rather frequently.

and Underlying personal traits, from a socio-psychological perspective. We can never underestimate the power and influence a person has on others. John Donne once said, 'No man is an island entire of itself, every man is a piece of the continent, a part of the main'. With a group of like-minded individuals, the interactions that take place within the group is very likely to strength its prevailing opinions (Myers, 1996). For example, racial prejudice would become stronger if it is discussed in a high-prejudice group and vice versa. Open debates, on the other hand, helps to create different scenarios that may be beneficial to the situation. Therefore, it is essential that we do not overlook the power of individual.

A group of people that is led by an individual (in this case, the leader), who welcomes different opinions, advices or critiques from experts and professionals, tend to come up with better decisions that have longer term benefits. Realistic, rational and scientifically grounded leadership tends to have a more positive impact on international, social and personal level. Compared to the leadership that is founded upon fear and hatred, leadership that consists of rationality and love is able to bring a healing effect to the world.

The United States of America, however, is experiencing its groupthink, which is led by an individual who is egoistic and authoritarian. President Trump likes to share his views and opinions on social media, and his use of words often indicates a strong sense of omnipotence. His prejudice towards individuals and nations that do not share his beliefs is very direct and aggressive. In this paper, the effects of President Trump will be examined, especially the media aspect, his use of words as well as the psycho-social influences that his speeches have on the international, social and personal level.

4. Significance of Derrida's philosophy on the written text and universal hainess

Anti-immigration, anti-global trade and anti-internationalization were the key messages in President Trump's campaign speeches and statements. This shows that his political thinking is very right-wing. He would often challenge the mainstream values and political consciousness of America and present his challenging ideas in a willful and disrespectful manner. However, he is particularly popular among the American population, so it is very important to understand the psychological impact that President Trump has on his followers, country and the global community.

From a psycho-social point of view, President Trump's political ideology is indeed a reflection of his psychological characteristic and his authoritarian leadership style. His leadership style is particularly complex, and it reflects his stubborn and inflexible personality traits. Prejudice and hatred toward other races, classes and cultures convey his extreme sense of conservatism and populism. At the same time, a strong sense of superiority is present, as well as the strong belief that their thinking is unquestionable and of utmost importance. The combination of these psychological aspects tends to form a very exclusive emotional state that is totally against democracy and internationalism.

To further understand this leadership style, there are several distinctive characteristics to be explored and these are often shown in different aspects. Firstly, a leader with these authoritarian traits tend to believe in the superiority of their position. It is very easy for them to openly express their despise, rejection and opposition towards those who have different doctrine and values. Secondly, they believe that they are more powerful, and believe they have full authority and influence over other people. Thirdly, they expect

their followers and others to identify, agree and even obey. It is important to be mindful of these characteristics because this type of leader is not afraid of showing their hatred and distrust towards people who are not part of their group (Myers, 1996). They find it easy to accuse outsiders of being evil and as enemies conspiring against them.

However, it is interesting to note that this type of leader are often the believers of their own various conspiracy theories. Besides this, this type of leader tends to make very direct and simple judgement on matters. In many ways, they do not believe in inconsistency, complexity and diversity. They tend to hold a very rigid and inflexible view on people from different cultures and social groups. In this regard, President Trump has clearly shown his authoritarian leadership style through his demeanor and his use of words. It not only reflects his state of mind but also greatly influences his followers and international relationships.

President Trump and Leadership Style

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The use of language

A very recent research study from PNAS (Jordon, Sterling, Pennebaker and Boyd, 2019) highlighted that leaders in the United States of America have shown much more confidence and have become much clearer with their viewpoints in their speeches. In this study, they analyzed twelve large political corpus and quantified two particular features of languages that politicians tend to adopt. In this case, their analytical thinking and their sense of confidence were examined.

They discovered that the language used by American presidents since 1798 reflects a decline in their analytical thinking but a dramatic incline in their self confidence level. Therefore, it is not surprising to see that President Trump is no exception and that his demeanor is in-line with this political trend. This change is not limited to the United States, as the study also indicates that Australian and Canadian leaders are carrying the same change in their presentations. British leadership, on the other hand, maintains their high level of analytical thinking with a steady increase of self-confidence (Jordon, Sterling, Pennebaker and Boyd, 2019).

This shows that that politicians, who are able to simplify complex issues and express them in a comprehensive manner, are highly preferred by American voters. As a consequence of this changing preference, the strong confidence (which also indicates arrogance and recklessness) that is conveyed by President Trump's attitude and use of words is well accepted by the voters. According to linguistic experts, function words can reflect the thinking process of the speaker. For example, the frequent use of negatives, pronouns and auxiliary verbs indicates strong subjectivity but a lack of analytical thinking. At the same time, the frequent use of "we" and "you" highlights the confidence of the speaker. In this case, President Trump's presentations are filled with sensations and are very influential, but it lacks analytical thinking.

In comparison to President Trump's use of words, researchers discovered that American leaders during the 18th and 19th centuries have shown a higher level of analytical thinking in their speech and debates (Jordon, Sterling, Pennebaker and Boyd, 2019). However, the situation changed with President Woodrow Wilson in 1913. The study further indicated that a higher level of self-confidence surfaced since President Dwight Eisenhower.

Impact on different levels

The global stage consists of different socio-political and cultural elements, which are filled with interesting and diverse dynamics. When President Trump's messages are filled with hostility, aggression and discrimination towards those who do not share the same beliefs and value systems, it creates some level of emotional turbulence on the global stage. In his book "The Art of the Deal", President Trump strongly emphasized that one should always be in an indestructible and strong position after entering the negotiation. When it comes to international political relations, it seems that he is applying this same corporate business attitude and strategy in his negotiations – "think big", "use your leverage" and "fight back".

With such a strong standpoint and unwillingness to compromise, it is extremely difficult for others to work with this mentality. Thus, it is not uncommon to see President Trump constantly changing his mind on international agreements that have been previously discussed and agreed. Turbulence on the global level is the result of this unpredictable, uncooperative and hostile mentality.

On a social level, group polarization also occurs when people in a group that favors or opposes an idea start having a discussion (Myers, 1996). In one of the psychological studies, it is shown that when a group of highly prejudiced students have discussions about different races and ethnicities, their attitude

tends to become even more prejudiced. Low prejudiced students, on the other hand, tend to become more tolerant towards the same issue. A recent study in the United States indicated that the areas that voted for Donald Trump have increased school bullying incidents (Lombardo, 2019). According to this study, the reported bullying rates in 2016 was 18 percent higher in the areas that favored President Trump than areas that favored Clinton. It also highlighted that children from a different race and ethnicity was 9 percent more likely to be bullied by their schoolmates in those areas.

In comparison, there was no 'meaningful' difference in the data from 2015 with relation to the same problem (Lombardo, 2019). Although it cannot be firmly concluded that President Trump's election has a direct influence on the increasing number of school bullying incidents, it is important to note that 14 percent of children from age 9 to 11 years old perceive national leadership (other than their own parents) as a role model for integrity and kindness. The other 86 percent do not associate national leadership with integrity and kindness but expects leaders to be setting a better example. As a result of this, it is crucial for politicians to be mindful of their campaign rhetoric and for parents to be very mindful of their reaction towards elections and the presidency. As it shows in this study and many others, parents' behaviors (i.e. reaction and response) can easily influence their children and the emotional impact can be easily amplified (Lombardo, 2019).

The power of the mass media

The power of social influence has become greater in the 20th century due to the rapid growth of mass media. Not only has it provided us with more data and information about the world, it has also increased the influences that people have on each other. Previously, we only had newspapers, magazines, radios and televisions, but now we have social media platforms (Twitter,

Facebook, and so on), which are widespread and commonly used by everyone. It is undeniable that people are benefitting from these social media platforms as they are getting more valuable information and news, as well as being more connected with each other. However, there are possible adverse impacts where some irresponsible and hostile attitudes are disseminated uncontrollably through these powerful media channels instantly.

President Trump's hostile and harsh rhetoric in social media is a reflection of his narcissistic personality traits, as well as a platform to create a phenomenon of "shared psychosis". If a person is not mindful about the information they receive online, the constant bombardment and exposure of this information may reform their feelings and thoughts. Devega (2019) reports that a person is likely to be involved in a pathological social phenomenon without their awareness. It is essential for a person to arm themselves with strong analytical skills and interpretation. If the "shared psychosis" continues its form on a social scale, it will create a 'mass hysteria' which directly affects one's level of happiness and contentment.

5. Tentative Conclusions on Community-level Wellbeing

There is a close nexus between the personal traits at the individual level and the social wellbeing at the aggregate level. As Smith (1759) states, "one of the most important principles in human nature" is "the dread of death, the great poison to the happiness" but also "the great restraint upon the injustice of mankind, which, while it afflicts and mortifies the individual, guards and protects the society". And in the US, there was a time when the dread of death (arising from lack of food) was dominantly in its citizens' mindset right after the independence (18th century); the "great" America was established through life-risking struggles of those frontier workers. The "my life first" or "my country first" spirit might be well understood and justified under such

hardship situations. The material situation of the US however has changed much since that hardship-oriented frontier era, and President Trump must surely know about this historical transition. The “my country first” traits of the US President’s tweets nowadays would only make a large detrimental impact on the contemporary global community.

In the absence of structured and rational authority (this structure is either structured by leadership or by democratic principles), the group would tend to regress and become governed by an irrational group mentality. When this type of regression occurs, the groups would turn to their most psychiatrically disturbed member as an alternative leader. In this case, President Donald Trump is a good example of this phenomenon. With his narcissistic and paranoid hysterical psychopathic traits, such as his authoritarian leadership style, his use of words, and the spread of his message through mass media, he can further stimulate the already unstable group’s anxiety on an individual, national and international level. By offering a false sense of security through his apparent confidence, certainty and scapegoating of groups and individuals, he has successfully created a ‘monster’ in the minds of his citizens. It is the ‘monster’ that everyone should be feared and hence, eliminated in order to nurture a sound societal wellbeing.

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