

Comparing the Netizen Behaviors Towards Refugee Crisis Between Turkey and the Netherlands

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Big Data

Research Question and the Datasets:

Research question:

The research question attempted to answer in this work is what is the difference between the perspectives of Dutch and Turkish people towards Syrian refugees based on the common words used in Dutch and Turkish tweets.

Useful Datasets to Answer the Question:

The data is collected from United Nations High Commissioner for Refugees' and Centraal Bureau voor de Statistiek's website, and the online applications called, #TAGS and Google Trends. The data from UNHCR, CBS and Google Trends are quantitative whereas the data from #TAGS is qualitative.

Scientific Data And Method:

Dataset:

Data sources:

- Twitter (Tweets are collected via the app called #TAGS)
- United Nations High Commissioner for Refugees (Number is directly taken from the organization's webpage)
- Centraal Bureau voor de Statistiek (Number is directly taken from the organization's webpage)
- Google Trends

Data types:

- Tweets: Text stored in an Excel file
- Number of Syrian Refugees in Turkey: Number
- Number of Syrian Refugees in the Netherlands: Number

- Numbers addressing the search volume of Syrian Refugees on Google. (Numbers represent search interest relative to the highest point on the chart. (Google Trends, 2016))

Selection criteria used while using #TAGS application to collect tweets:

Terms searched: “Syrische AND vluchteling”(Eng.: Syrian AND refugee), “Syrische AND vluchtelingen” (Eng.: Syrian AND refugees), “Suriyeli AND mülteci” (Eng.: Syrian AND refugee) and “Suriyeli AND mülteciler” (Eng.: Syrian AND refugees)

Follower count filter: 10

Number of Tweets: 10000

Type: search/tweets

Selection criteria used while using Google Trends to observe search interest:

Terms searched: “Syrische vluchtelingen”(Eng.: Syrian refugees), “Suriyeli mülteciler” (Eng.: Syrian refugees)

Countries: The Netherlands, Turkey

Time: Last 90 days

Groups: Web search, News Search

Collection method of the tweets:

Since Twitter API only allows the user to collect tweets from the past 7 days, #TAGS application is used weekly since 16 April 2016. It will be used until 16 May 2016 in order to collect tweets for a 30-day period. The tutorial on the usage of #TAGS is included in the website and therefore, it is not included in the report. User, user language and date are also gathered while the tweets are collected.

Method:

The project aimed to see if there is a relation between the number of refugees in these countries and the netizens’ perspective on the refugee crisis. Therefore, after examining interaction with the Syrian refugee population in the aforementioned countries, general

perspective regarding the most frequently used words in the collected tweets and the online interest on Syrian refugees will be compared to check the hypothesis.

In order to answer the question, the list of tweet contents as a text file and a list of the frequencies of the most commonly used 15 words in the tweets are examined. Only adjectives and nouns are analysed and the rest (e.g. the, a) is not included on the list. By using an online word cloud generator called *Word Clouds* (<http://www.wordclouds.com/>) two word clouds consisting the most commonly used words in both plural and singular form of Syrian refugees in each language are generated. During this process, both Dutch and Turkish words are first translated to English and then the English words are used.

After obtaining the word cloud of the most frequent 30 words in each language, the approaches in two countries are compared regarding the data from Google Trends, UNCHR and CBS in order to answer the research question.

Data Presentation:

	Dutch Singular	Dutch Plural	Turkish Singular	Turkish Plural
Number of Tweets	316	1472	2942	980
Date of the First Tweet	16/04/2016 09:35:31	16/04/2016 20:34:38	16/04/2016 19:12:39	17/04/2016 09:17:12
Date of the Last Tweet	10/05/2016 22:39:58	10/05/2016 23:36:10	13/05/2016 00:58:30	12/05/2016 23:22:43

Table 1. Date and quantity information about the Tweets

Dutch Singular		Dutch Plural		Turkish Singular		Turkish Plural	
Word	Freq	Word	Freq	Word	Freq	Word	Freq
wel	54	turkse	505	kampında	526	yetim	318
geen	47	grenswachten	307	hayat	314	çalışması	298
hulp	43	meer	113	çocuğa	314	müzik	297
enkel	42	dood	101	kardeşimiz	306	devlet	296
hongerkindje							
e	42	canadezen	93	çocuk	255	örnek	296
afrikaans	42	bevolking	80	tecavüz	252	destekli	296
vlam	35	spuigaten	78	cinsel	251	tiyatro	296
olympische						yönetmenimi	
oorlog	34	economie	74	istismara	176	z	296
	32	regering	65	tutuklama	176	milyar	96

verhaal	26	grens	59	haberleri	172	yardım	94
uit	25	geweld	55	görevlisinin	167	devam	89
11-jarige	23	bewijs	53	taciz	165	hane	87
klein	23	opnemen	52	yerden	165	toplam	87
groot	23	kabinetsreactie	52	dramını	118	dram	67
ontroering	23	grenswacht	52	basketbolcular	111	çöplüğünü	67

Table 2. The most frequent 15 words from 4 Tweet groups

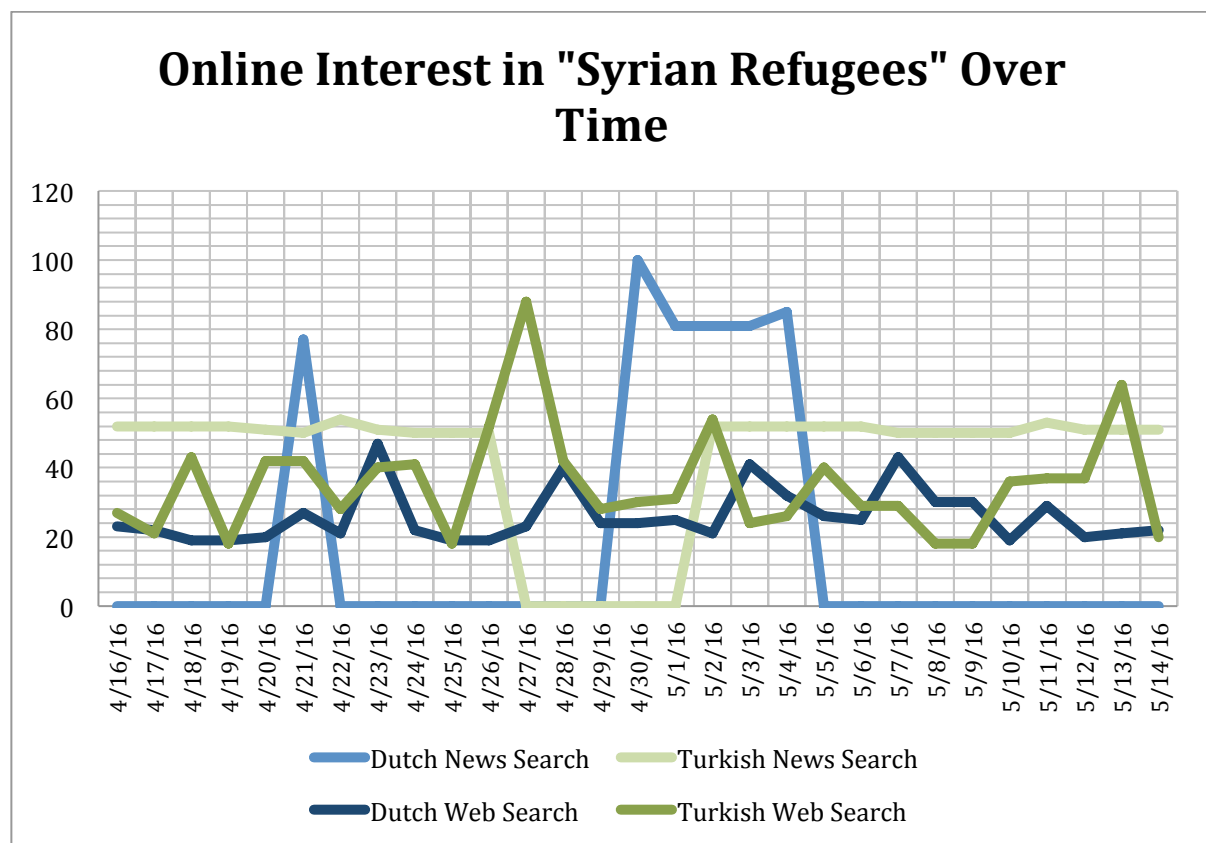
Dutch Singular	Dutch Plural	Turkish Singular	Turkish Plural
well	Turkish	camp	orphan
none	border guards	life	work
help	more	child	music
single	death	our brother	government
hungry baby	Canadians	kid	example
African	population	rape	supported
flame	scuppers	sexual	theatre
Olympic	economy	exploitation	our director
warfare	government	arrestment	billion
story	borderline	news	help
out	violence	employee	continuation
11 years old	certificate	abuse	house
small	affiliation	ground	total
big	government response	drama	drama
emotion	border guard	basketball players	dump

Table 3. The most frequent 15 words in English

Date	Dutch News Search	Turkish News Search	Dutch Web Search	Turkish Web Search
16/04/2016	0	52	23	27
17/04/2016	0	52	22	21
18/04/2016	0	52	19	43
19/04/2016	0	52	19	18
20/04/2016	0	51	20	42
21/04/2016	77	50	27	42
22/04/2016	0	54	21	28
23/04/2016	0	51	47	40
24/04/2016	0	50	22	41

25/04/2016	0	50	19	18
26/04/2016	0	50	19	52
27/04/2016	0	0	23	88
28/04/2016	0	0	40	42
29/04/2016	0	0	24	28
30/04/2016	100	0	24	30
01/05/2016	81	0	25	31
02/05/2016	81	52	21	54
03/05/2016	81	52	41	24
04/05/2016	85	52	32	26
05/05/2016	0	52	26	40
06/05/2016	0	52	25	29
07/05/2016	0	50	43	29
08/05/2016	0	50	30	18
09/05/2016	0	50	30	18
10/05/2016	0	50	19	36
11/05/2016	0	53	29	37
12/05/2016	0	51	20	37
13/05/2016	0	51	21	64
14/05/2016	0	51	22	20
Total in 30 days	505	1230	753	1023

Table 4. Online interest in Syrian Refugees (Data Source: Google Trends (www.google.com/trends))



Graph 1. Line chart of Table 4



Graph 2. Word cloud from the most frequent 30 words in Dutch tweets in English based on their frequencies



Graph 3. Word cloud from the most frequent 30 words in Turkish tweets in English based on their frequencies

Analysis:

Refugee crisis in the Netherlands vs. Turkey:

According to a news article published on NL Times, refugee crisis is a great concern for the people in the Netherlands. Dutch population is concerned about offering shelter to the

asylum seekers in both positive and negative ways, namely failing to provide a comfortable shelter or providing any shelter (Pieters, 2016). According to the data taken from CBS (updated on 18 May 2016) there are 13,285 Syrian refugees in Netherlands. The refugees stay in refugee camps in the Netherlands and therefore the public's contact with the refugees is minimised unless they work for an organisation that helps the refugees. Looking at the word cloud, it is obvious that Dutch Twitter users mostly tweeted about the refugee deal between the European Union and the Turkish government and the border guards, whose task is to stop the refugees in some European countries. Other striking words from the Dutch users were scuppers, death and economy. The association between scuppers and death can be examined related to the boat accidents Syrian refugees face during their journey from Turkey to Greece. When the Tweet contents are analysed it is seen that the word economy is used both concerning the Dutch and Turkish economy. This can be interpreted as the refugee crisis is seen as a burden for international economy.

Resulting from the geopolitical location of Turkey, the country has one of the greatest Syrian refugee populations, which is 2,744,915 (updated on 19 May 2016). Even though there are multiple refugee camps around the country, about 90% of Syrian refugees in Turkey remain outside of camp settings with limited access to basic services (European Commission, 2016). As a result of this the interaction between refugees and the citizens increases. Therefore, compared to Dutch locals, Turkish locals are involved more in a mutual life with the refugees. As Turkish locals can observe more of the daily problems of the refugees, the words in the word cloud are additionally related to the dramatic problems such as orphans, child workers, rape and sexual exploitation.

When both tweet numbers and Google Trends data are observed it is obvious that Dutch Twitter or Google users are not as active about the refugees as the Turkish users. When Graph 1 is examined it is observed that the topicality of Syrian refugees on the news is more consistent in Turkey compared to the Netherlands. There are specific data points that the news search is high in the Netherlands, which suggests that the news regarding refugee crisis are not as popular as they are on the day of publishing and 2-3 days following it. The correlation coefficient between the News searches and Web searches in Dutch is 0.149 whereas it is -0.258 for the searches in Turkish. Both coefficients suggest that there is a weak relationship between the web searches and the news searches statistically yet it is higher for the searches in Turkish.

Conclusion and Evaluation:

After analyzing the Twitter and Google Trends data on Syrian refugees in both Dutch and Turkish, answers to the research question can be suggested. The research question cannot be answered precisely because of the limitations related to the data sets. When Twitter data is collected via #TAGs, information related to a tweet, e.g., date, username, geolocation, user language etc. can be collected; however, data related to the user's age, education level or gender cannot be retrieved via the same application. Moreover, the data driven decisions made from Twitter do not reflect the whole society's situation. This limitation originates from multiple facts about the average Twitter user profile such as the fact that 45% of the Twitter users are between the ages of 18 to 29 (Smith, 2014). Moreover, the words listed cannot be examined to decide whether they have a positive or negative meaning, because it mostly depends on the context and some of the words listed as the most frequent do actually have different meanings when

they are used in expressions. Therefore, running a sentiment analysis on the whole twitter data rather than analysing a single word would give more accurate results for the research question.

Everybody has a different approach to the European crisis, and every country also has a different attitude in dealing with the refugee crisis. The environment we live in and our past experiences certainly affect our attitudes. Therefore, the citizens of a country where a lot of refugees are accepted will have a different approach to the refugee crisis compared to the citizens of a country with 800 refugees in total. After examining data sets regarding online behaviors of the Dutch and Turkish Twitter and Google users together with the background information about the Syrian refugees in these countries, it is very clear that both countries' citizens have different concepts in their minds regarding the refugee crisis. Comparison of the Syrian refugee populations shows that the attitude towards the refugees is affected by the size of the population depending on the interaction between the refugees and the locals. The increased interaction creates a greater awareness about the problems faced by the refugees, and consequently more words regarding their suffering or activities organized for them are used. Less interaction because of the refugee population located in a specific area resulted in words mostly concerning the details from international news on refugee crisis such as economy or borders. Considering the data sets examined, the difference between Dutch and Turkish netizens' perspectives is the fact that following a closer interaction, Turkish people have a more individual perspective on refugee crisis compared to the relatively remote perception of Dutch people.

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