

# Realistic conflict theory on Twitter: How economic distress fuels anti-refugee discourse

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## SUMMARY

Intergroup animosity is explained in social psychology by the realistic group conflict theory as a result of competing aims and inadequate resources (Jackson, 1993). According to this theory, economic instability and the perception of decreasing economic resources should provoke an increase in outgroup antipathy and intergroup conflict. Does anti-refugee discourse quantitatively worsen in times of economic distress? How does economic distress affect the severity of animosity in anti-refugee tweets? How does the formulation of the anti-refugee discourse change in dynamic economic stability? In this research, I will observe how anti-refugee discourse alters as the feeling of economic instability and distress within a country increases. The fluctuation of the density of anti-refugee language will be observed via the collection of tweets collected in different intervals of economic distress. These two corpus of tweets will be exposed to sentiment analysis and topic modeling to be compared for statistical significance.

keywords: anti-refugee discourse, twitter sentiment analysis, topic modeling, refugee crisis, social psychology, political psychology, immigration

## INTRODUCTION

### Refugee

People migrating to seek protection outside their home country are defined as refugees and asylum seekers in the Geneva Convention of 1951.<sup>1</sup> Article 1 of the convention defines a refugee as follows:

*As a result of events occurring before 1 January 1951 and owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it.*

Refugees have the right not to be forcefully returned to their home country under the 1951 Convention's principle of non-refoulement. (Article 33)

### Turkish Refugee Crisis

*The Turkish Refugee crisis* or *Turkish Migrant crisis* is a period of very large flux of immigrants starting to arrive in Turkey in 2010. Although Turkey has become host for many war-ridden countries' citizens such as Iraq, Iran and Afghanistan for decades, the crisis hit its peak with the Syrian Civil War which started in 2011, resulting in a total of approximately 3.7 millions of refugees and asylum seekers in Turkey by 2022 of whom 46% are children. (Şahin et al., UNHCR) Turkey, to this day, remains to be the leading host and a commonly used passageway of Syrian refugees to European countries. Turkey's "geographic limitation" for The Geneva Convention of 1951 resulted in defining "refugee" as a person fleeing only from Europe for security concerns. Turkey could not classify Syrian migrants as "refugees" but referred to Syrian refugees as "guests", offering them "temporal protection status". (Abdelaaty)<sup>2</sup> The Turkish government passed the *Law on Foreigners and International Protection* which was adopted in April 2013 by the Turkish Grand National Assembly to reorganize the legislation for foreigners, refugees,

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<sup>1</sup> *Convention relating to the Status of Refugees* (adopted 28 July 1951, entered into force 22 April 1954) 189 UNTS 137

<sup>2</sup> *Law on Foreigners and International Protection* (Article 91) and *Temporary Protection Regulation* (Article 1) state that the legal status of refugees from Syria is "temporal protection status".

and those in need of international protection.<sup>3</sup> The Turkish government also began issuing work licenses to Syrian refugees who have been in Turkey for more than six months in January 2016.<sup>4</sup> By the end of 2015, Turkey had taken in almost 2.5 million Syrian refugees and spent about \$8 billion to help them.<sup>5</sup> Between 2014-2015, as the number of migrants moving to Europe grew, in march 2016, Turkey and the European Union negotiated the *Joint Action Plan* which aimed at keeping refugees in the Mediterranean and in Turkey by reinforcing border security measures. Greece was promised with a possibility to return “all new irregular migrants” to Turkey.<sup>6</sup> One registered asylum seeker from Turkey was to be resettled in the European Union for every irregular migrant deported from Greece. Most importantly, Turkey would get approximately €3 billion of funding to assist the refugees. Since the beginning of the conflict in 2011, the European Union has been the biggest donor in the international response to the Syrian crisis, allocating a total of € 10.9 billion in humanitarian and development assistance from the EU budget and Member States collectively.<sup>7</sup> Many restrictions in European countries to accommodate refugees have pushed them to smuggle their way in, paying high amounts of money to boats that would carry them to European countries. Turkey “opened” its borders for refugees in February 2020, pushing many to the Greek islands as well as to the Greece-Turkey border, to find a way into Greece and potentially to many other European countries. Greece did not permit passage keeping the border closed. In 2021, the European Union has provided a booster aid of €560 million to Turkey to help with refugees.<sup>8</sup> Although many refugees seek better life conditions in Europe, many others who are in the labor force and built their lives and careers in Turkey also plan a future in Turkey. According to a 1.900 participant survey done by Düvell et al., 56% of the refugee participants would like to continue living in Turkey. However, 29% agreed that they would like to live in a country other than Syria or Turkey; 22% aspired to move on to a European country. Nonetheless, the process of integration of refugees into Turkey remains an undeniable paradox. Integration, already a difficult process, can be fueled by social, economic and political dynamics. Unfortunately, xenophobia against refugees is a

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<sup>3</sup> *Law on Foreigners and International Protection*, [www.unhcr.org](http://www.unhcr.org)

<sup>4</sup> *Regulation on Work Permits of Foreigners under Temporary Protection*, [www.refworld.org](http://www.refworld.org)

<sup>5</sup> [www.goc.gov.tr](http://www.goc.gov.tr)

<sup>6</sup> [ec.europa.eu](http://ec.europa.eu)

<sup>7</sup> [www.avrupa.info](http://www.avrupa.info)

<sup>8</sup> [ec.europa.eu](http://ec.europa.eu)

growing trend amongst Turkish citizens (Şafak-Ayvazoglu et al.). To produce and conduct integration policies for refugees, the nature of the prejudice against them must be thoroughly examined.

### THEORY

What psychological factors drive negative attitudes towards other groups? Attitudes against refugees can be examined through the lens of a broader theoretical viewpoint derived from prejudice studies and mainly intergroup conflict in social psychology. One of the most well-known theories in social psychology for explaining prejudice is the Realistic Conflict Theory, which states that in situations where two groups compete for scarce resources, antipathy toward members of the outgroup increases, as does intergroup conflict. (Sherif et al. 1954, Campbell 1965, Tajfel, Turner 1979) Even 'manufactured' groups, such as in the *Robber's Cave experiment* where randomly produced competing groups were enough to produce a sense of group membership and an increase of hostile intergroup rivalry, exhibit such patterns of interaction. (Sherif et al. 1954) Intergroup hostility may be caused by different types of perceived threats. The negative attitudes are based on four categories of threats: *realistic threat*, *cultural threat*, *intergroup anxiety*, and *intergroup stereotypes*, according to a literature study conducted by Stephan et al. in 1997. The *realistic threat* comprises the Realistic Conflict Theory, which explains how intergroup conflicts, due to lack of resources, exacerbate hostile intergroup relations but also strengthens ingroup cooperation, belonging and relations. (Ashmore and Del Boca 1976, Sherif 1966) In case of refugees and immigrants, the suspicion causing the intergroup conflict through the lens of the realistic threat is the belief that the newcomers will potentially exploit host peoples jobs, welfare acquisitions while putting a strain on the economy. The *cultural threat* suggests that fear of outgroups might be fueled by cultural and religious cleavages between the native population and immigrant groups. The *intergroup anxiety* underlines how in a homogenous intergroup hostility arises when the host society is utterly alien to any newcomers. (Stephan) Similarly, *intergroup stereotypes* about the refugees and immigrants can frequently lead to out-group members being avoided, to the usage of negative trait attributions to explain their conduct and to justify the discrimination (Stephan). In a cross-country context, demographic indicators such as socio-economic status and education can be

related to the probability of adopting realistic threat tendencies. Individuals characterized with high confidence in their work skills and in their permanence in the labor market are typically more prone to having a lower possibility of adopting such lexicon against refugees or immigrants. (Mayda 2006) Hainmuller and Hopkins argue that even if the host is not personally threatened by immigrants, they might still believe that the immigrants will pose a threat to the status quo in the country. Political stance is also an indicator of anti-refugee discourse adoption both by realistic threat and cultural threat which is influenced by the person's economic stance as well as perceived alien cultural motives.

The daunting reality that is the irreversibility of these stereotypes against outgroups has been studied by Allport in *The Nature of Prejudice*, 1954, where he explored the *Least Effort Theory* which implies that human beings use stereotyping as a normal cognitive function to process information as a mental shortcut. Allport hypothesized that intergroup contact resulted in diminished prejudices (where two groups were of similar status, common goals, cooperation in an environment of encouragement by the authorities, laws or customs) in some cases, but in other cases, exacerbated it. This contact hypothesis was analyzed in many researches (Pettigrew, Tropp 2006, Pettigrew, Tropp, Wagner, Christ 2011). In a variety of contexts, including both field and experimental designs, the interpersonal contact effect has been empirically studied. (Pettigrew & Tropp, 2006, 2011) Intergroup friendships, for example, have been demonstrated to diminish prejudice (Davies, Tropp, Aron, Pettigrew, & Wright 2011), which could be due to the fact that such friendships incorporate Allport's ideal circumstances, such as collaboration, common aims, and equal status. As in the *Robber's Cave experiment's* "friction reduction" phase, where two groups were presented with a task that would benefit the group as a whole, the cooperation ignited two groups to work together as a team. The *Robber's Cave experiment's* population however was a group of boys without any preconceived cultural and social stereotypes against the outgroup. Therefore, intergroup prejudices in cross-country contexts feed off of many different social cues and might appear way more difficult to reverse by nature. Nonetheless, the evidence presented that shows how outgroup hostility arises in scarcity of resources helps us hypothesize that the perceived notion of scarcity of resources (economic distress and high unemployment rate) might be a strong

predictor of the increase in anti-refugee discourse in society regardless of social or cultural cues.

#### LITERATURE

Since my research will provide an interdisciplinary computational approach to understand anti-refugee sentiment and discourse to get a wider perspective on how anti-immigrant/refugee sentiment was acquired by people, I will be exploring diverse studies from different geographical and social contexts and disciplines. There have been many studies on the sentiment analysis of immigrant/refugee tweets. There are also many survey based researches trying to get a sense of the anti-refugee sentiment, not just in Turkey but in many host countries and regions. Ozturk et al. investigated the public opinions and sentiments towards the Syrian refugee crisis with text mining techniques on related tweets, Rowe et al. measured shifts in public sentiment opinion about migration during early stages of the COVID-19 pandemic via lexicon-based sentiment analysis and topic modeling in Germany, Italy, Spain, the United Kingdom, and the United States. Soykoek et al. investigated post-traumatic stress disorders in Syrian refugee children in a German refugee camp. Villasana, in 2016, tried to get an insight on the living conditions of Syrian refugees in Turkey. Ozerim et al. studied whether it is possible to frame anti-refugee discourse on social media as a form of populism by analyzing the case study of the hashtag *#ülkemesuriyeliistemiyorum* that emerged in 2016. Gökçe et al. have assessed the relative salience of issues raised relating to refugees and tested users assign culpability to Turkish political parties regarding these issues using a four-month snapshot of Turkish tweets on Syrian refugees. Lucić et al., examined the Syrian conflict using sentiment analysis of tweets in different factions in the Syria conflict in order to establish how the sentiment shapes the modern political landscape. Smith et al., examined how the dissemination of images of Aylan Kurdi pushed individual Twitter users to develop a sense of shared solidarity with refugees over time, as evidenced by changes in their linguistic style. Taşdelen has made a qualitative analysis of tweets on Syrian refugees. Erdogan and Guler have analyzed a subset of tweets that included the hashtag *#ülkemesuriyeliistemiyorum* (*#idontwantsyriansinmycountry*) to understand its functions in constructing and proliferating an exclusionary discourse against refugees. Pope and Griffith (2016) studied the refugee crisis in Europe including Syrian refugees based on sentiment

analysis of tweets. Caldéron et al., sought to model and characterize hate speech against immigrants on Twitter in Spain around the appearance of the far-right party Vox. They used unsupervised topic modeling and found that the four underlying topics (control of illegal immigration, economic assistance for immigrants, consequences of illegal immigration, and Spain as an arrival point for African immigrants and Islamist terrorism) were similar to those in the discourse of Vox.

This research, being the first one which combines the sentiment analysis with the economical predictor, brings novelty to the literature. All the research before was either qualitative analysis of a sample of tweets, or a combination of topic modeling and sentiment analysis or simply survey research to get an insight on refugee sentiment. Since Twitter is not subject to sociability bias, meaning that users are not under influence of a researcher while expressing opinions, it can be hypothesized that motives behind anti-refugee sentiment may appear more genuine than survey research. Twitter data is vulnerable to representability bias as it provides relatively unknown demographical data if not provided by the network itself or tagged with demographic information. Furthermore, Twitter research excludes non-users' public opinion which can be the majority of the population depending on the nature of the research. Neither does Twitter data provides us with valuable demographic beyond age, sex and location unless the user consents to present us with their account. The socio-economic status and other social and political belongings of users can only be hypothesized through the users content of tweets and their network.

#### HYPOTHESIS

**H1:** *Economic distress and instability affects the quantity of the anti-refugee discourse on Twitter.*

H1 aims to understand how economic instability and distress relates to an abundance of anti-refugee tweets. For this hypothesis, I will be applying sentiment analysis to classify positive and negative tweets from a corpus of anti-refugee tweets.

**H2:** *Economic distress and instability affects the topics that surround the anti-refugee discourse on Twitter.*

H2 goes further than the observation of the amount or the visibility of anti-refugee speech, focusing on the features and characteristics. It aims to comprehend what topics are addressed

during certain times of economic distress and lack of economic hopefulness. Economic topics might become the dominant topic of all the topics in the dataset.

## METHOD

All potentially relevant Turkish tweets will be searched and extracted from Twitter programmatically as part of the data collection process, using the `twitterR` package developed in the R programming language. To understand the effect of the economic distress on the exacerbation of anti-refugee discourse, tweets will be gathered around two different time intervals. Tweets with related keywords from October 2021 to April 2022 will be obtained for a corpus of relatively lower economic distress (October 2021 - January 2022) and the interval of relatively higher economic distress (January 2022 - April 2022). The keywords used will be “göçmen”, “Suriyeli”, “mülteci” and “multeci” etc. The keyword list can be qualitatively decided and will be inspired by prior significant research. Since I will be getting an average negative sentiment score everyday, hashtags or keywords about refugees will be collected and not just hateful anti-refugee hashtags such as *#defolsunlar* or *#suriyeliistemiyorum*. The reason why I am collecting all the tweets on refugees is also because scraping just anti-refugee hashtags might exclude many other tweets since hashtag activism might be short lived and might not comprise all the sentiment against refugees. During the data cleaning, the retweets will be excluded as the goal of this study is to specify the sentiments or opinions of individuals and the retweets are not considered to reflect a new personal opinion. The datasets will be stripped of duplicates, HTML tags, URLs, punctuation, links, and numbers, @users. All the potential bots will be cleaned via the Botometer. For text normalization, the Zemberek library will be used. Misspelled words, repetitive letters will be fixed and all letters in the text will all be converted to lowercase. (Kumas) The spaces at the beginning and the end of the sentence and extra spaces in the sentence will also be removed. Following the preprocessing stage, all tweets will be divided into tokens. Lemmatization is the process of reducing the words in the text to their suffixes, taking into account their morphological analysis. The lemmatization function of the Zemberek library will be used for this process.

There are two basic approaches to automatic sentiment categorization—machine-learning approach and lexicon-based approach. For this research, I will be using the lexicon-based approach. The polarity lexicon I will be using, the SentiWordNet's Turkish twin, SentiTurkNet, which was developed by Sabancı University. It provides 15,000 Turkish words' positivity and negativity scores. The positivity and negativity assignment of each tweet will be monitored via the accuracy scores of the algorithm which is the ScikitLearn's neural network algorithm MLPClassifier. The dataset will be divided into training and test sets to test the accuracy of the method. After tuning the hyperparameters of the algorithm via the GridSearchCV, I will be arriving at a classification report. At this point, since the polarity lexicon only provides 15,000 words and because I haven't transformed the tweets into vectors to get a sense of the whole sentences, the accuracy scores will be very low. To fix this problem, I will be using the Word2Vec tool, first presented in a paper by Google published in 2013. This paper argues that every word is meaningfully connected to the other words in a sentence. It is highly unlikely that the words "lion" and "ice-cream" coexist in the same sentence. They have gathered data from Wikipedia and found the words around a word and tried to guess the word by the words around it. For instance, they excluded the word "goes" from the sentence "Mark goes to school." There are only many possibilities on how I can impute the word "goes". It can't be "lion" for instance. Vectors of every word are thus created and the relationships within a sentence are more clear. So, I can acquire the closest words to a particular word, because this group of words were present in the same texts as the particular word. After vectorifying every word in a sentence, our accuracy score will improve. Another method that would improve the accuracy of the polarization, is the use of BERT, which was created in 2018 by Google. By using BERT, I'm aiming to vectorize the sentences. I am trying to figure out if two sentences are following each other. BERT gives us a vector of the whole sentence "Mark goes to school." BERT will also help us increase the accuracy. After giving every tweet a polarity score (between -1 and 1) I will then get an average sentiment score for everyday or every week for each interval. Or this could basically be calculated by dividing the number of negative tweets to all tweets everyday. To analyze the effect of the economic distress and instability on the anti-refugee speech, I will be using a multiple linear regression model. Our independent variables will be GDPPC growth

rate, unemployment rate, inflation rate, wage rate and private borrowing rate data from TUIK (Turkey Statistical Institute) and from World Bank Data and our dependent variable will be anti-refugee speech average score which will be calculated by dividing the negative sentiments to the collection of tweets on that day. In this particular research, I will not be weighting the “density” of the negativity of the tweet. As long as a tweet is negative, I will not be making a distinction between a full-on hate speech or an almost neutral negative tweet. What I am concerned about is whether the quantity of negative tweets about immigrants have fluctuated over time with changing economic dynamics. I will gather the scores in a csv file, append the independent variable columns. After checking the normality of my data, I will be combining many indicators into one to make inference with Principal Component analysis via Python ScikitLearn PCA module. In that way, I will be diminishing the dimension of my indicators and will not have to make inferences one by one. I will then perform multiple linear regression analysis after making sure that our data is normally distributed to find the significance of economic distress on average sentiment scores.

Figure 1.

$$Y_{av\_sen\_scores} = X1 \text{ GDPPC\_Growth\_rate} + X2 \text{ Unemployment\_rate} + X3 \text{ Inflation\_rate} + X4 \text{ Wage\_rate} + X5 \text{ Private\_borrowing\_rate} + c$$

To perform that, I will be using the Python statsmodels OLS function or any respective binomial regression model that would fit my data’s normality to provide insight for statistical significance of the independent variables. The evaluation of the sentiment analysis will be done through a classification report with accuracy, precision and recall on relative IDE. For statistical significance t-values and p-values will be compared.

To assess the second hypothesis, I will be using topic modeling on the negative tweets to understand which types of topics are more dominant in negative tweets. Topic models are built on the simple premise that documents are collections of subjects, with each topic representing a probability distribution over words. Latent Dirichlet Allocation (LDA) is a topic modeling algorithm used for extracting topics from a given collection of documents. (Sokolova) LDA is able to find out the topics and their relative proportions, which are distributed as a Latent Dirichlet

random variable, based on the assumption that a document contains a mixture of  $N$  underlying different topics, and the document is generated by these topics with different proportions or probabilities. The performance of the algorithm can be controlled by making assumptions about word and topic distributions. The following is the general LDA processing procedure is as follows:

Setting parameters is the first step.  $\alpha = 0.1$ ;  $\beta = 0.01$ ;  $\text{minTokenCount} = 5$  are the default values.

2. Select  $N$  as the topic number and input the data file.
3. For text data, tokenize.
4. Apply the LDA method to extract the latent structure hidden beneath the text and display the results.

I will be applying the LDA algorithm to the negative tweets to assess different themes (in our particular search, it's economical instability). The following Python libraries will be required for this task: pandas (data processing), seaborn (visualization), gensim (topic modeling), and pyLDAvis (visualization of topics). I will measure the level of coherence—the farther from 0, the better—and compare several models with 15 words for each topic to determine the appropriate number of topics. After a number of topics, the level of coherence will start to decrease which means that I should keep our number of topics lower. I will most likely arrive at three or less “themes” since the main variant I am looking for is the prevalence of economic animosity within these tweets. These topics will most likely be around the themes:

1. *Economical aid*. This theme discusses alleged immigrant fraud when seeking financial assistance from governmental organizations, as well as their economical advantages over Turkish people.
2. *Islamic terrorism*
3. *Nationalism*

The prevalence of economic tweets in proportion to all negative tweets for two intervals will give us another way to compare how economic instability fuels anti-refugee discourse. If economic themes are more dominant in times of economic distress, it creates evidence for our hypothesis. In conclusion, with the sentiment analysis, I will be able to assess if the sheer volume of negative tweets fluctuate as economic hopelessness emerges. Through topic modeling, I will assess the

number of negative tweets that belong to the economic discourse topic and therefore the topical change between relative intervals.

Concerning the biases, I would ignore building my research on time intervals where the exposure to refugee related news is lower because people are more likely to tweet following news coverage. There is no systematic bias that comes from this, only a lack of precision in the estimator.

### ETHICS

Since the dataset will be stripped of all user information and demographics, the dataset without the user information could be safe to be shared for further research. Although it's undeniable that demographic information is essential to understanding the formation of anti-refugee discourse such as education, partisanship, social and ethnic ground, this research primarily seeks to understand merely the effect of the shortage of economic resources on the escalation of anti-refugee speech. For further studies, it can be suggested to study the effect of demographic indicators of anti-refugee speech by performing it on a demographic Twitter data. In this particular study, the corpus will not need to be anonymized because the user information will not exist. Any researcher who wishes to perform research or replicate this study with this dataset is encouraged to apply to the ethical conduct strategies mentioned in *Bit by Bit: Social Research in the Digital Age* by M.J. Salganik.

### EXPECTATIONS AND LIMITATIONS

This research, being the first of its kind, aims to observe the realistic conflict theory in group processes and prejudice in social psychology empirically and on a wider scale different from controlled experiments. If I find evidence that lack of resources fuels anti-refugee discourse, I will be able to better understand international immigration policies, related funds and their efficiency. Furthermore, if it's significant, this research will also solidify Sherif and Campbell's Realistic Conflict Theory on a broader scale, which can consequently create a purpose to examine potential solutions to prejudice and intergroup conflicts as in Allport's research.

I should also take into account the dynamics of the European Union, especially Germany. Germany, who was and to this day remains to be a powerful actor in the management of the crisis, is expected to be changing its government in the future which can alter the status quo of the economic international migration policies. Therefore, I will be able to forecast how anti-refugee discrimination would alter in unstability, which can possibly happen in the future. Also, this research will provide a forecast of how a possible economical crisis in the future might change the status quo of the anti-refugee sentiment and to what degree.

One of the biggest challenges of this study will be that some of the independent variables are seasonal. Inflation and unemployment rate are especially highly prone to seasonality, meaning that because seasonal and calendar effects are transient, they prevent the observation of the data's overall trend. It's difficult to tell if a change in a given period is due to the data's true growth or reduction, or to seasonal impacts, when the data contains seasonal movements. In comparisons to be made with respect to the same month of the previous year, it would be more meaningful to use calendar adjusted indicators. Although some indicators have already ripped off the effects of seasonality such as unemployment indexes (tr: İGE, İş Gücü İndeksleri) from TUIK, this seasonality countering measures should be appended and very carefully examined before publishing the study.

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