Insight Into International Relations: Analysis of United Nations General Assembly Voting Data

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Introduction to Data Science

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**Background**

The United Nations General Assembly (UNGA) serves as a global forum where nations all around the world express their views and vote on issues of global importance. The issues brought forward on the UN stage range from human rights violations to economic development initiatives. Every country and its citizens are affected by the outcome of UNGA votes. As the world becomes more and more globalized, even non-member countries can be indirectly impacted by a UNGA resolution.

When the United Nations was first developed, it was meant to promote world peace and open the world to global conversation as opposed to armed conflict. Opinions on whether the UNGA has achieved its goals vary from country to country. Aside from the individual impacts, UNGA votes have a regional and global impact in terms of international relations. By analyzing the voting data collected from the outcomes of UNGA resolutions, international relationships can be analyzed and quantified.

Although countries hold varied opinions on global issues within themselves, they ultimately have to present a unified voice through their UNGA vote. Ideally, this voice is consistent with the current views of the country, and intend to advance or protect the country’s interests. Interests for one country might align with those of another for a variety of reasons: they could share the same cultural values, strong economic ties, or even the same allies or foes. Analysis of UNGA voting data helps to identify and understand how a country votes based on a particular topic.

**The Problem**

The intent of the UNGA Voting Analysis project is to identify topics of importance or of frequent appearance on the UNGA stage. Secondly, the analysis identifies particular voting blocs based on these topics. Voting blocs are derived on a variety of factors (economic status, affinity scores, regions, etc), and are used to determine which factors are relevant to the outcome of a vote on a particular topic. For example, the data might be split into regions and the voting outcome based on region is collected. Such an analysis would help answer the following questions:

* Are regions viable voting blocs with significantly similar voting tendencies? What kind of “region” is more indicative of a voting bloc (e.g. Americas, North/South America, Latin America, etc.)?
* Are there factors other than regions more indicative of the outcome of a vote?
* Is there a combination of factors that could yield an optimal method, formula, or algorithm for assessing the outcome of a vote based on the topic?

By gaining insight into the factors most related to the outcome of a vote based on topic, the United Nations body and its members can assess the dynamics between various countries. Ultimately, the goal of the UN is to break down barriers to allow open discussion, foster tolerance, and promote peace. Analysis of UNGA voting data would help identify voting blocs and their probable causes (i.e. geography, socioeconomic status, language, etc.). Identifying the “blocs” would help illuminate potential barriers the UNGA could seek to understand, resolve, and dissolve (if possible).

**The Data**

United Nations General Assembly Data is available from 1946 to 2014 and comes in the form of four datasets:

1. Raw Voting Data: contains the raw voting data for each country on each resolution
2. Vote Description: contains a short and long description for each resolution and categorizes each using six issue codes.
3. [Ideal Point Data](https://erikvoeten.shinyapps.io/IdealPointsUN/): contains ideal point data for each country. Ideal points are used as a measure for estimating liberal/conservative inclination
4. Codebook Dyadic Data: contains data on the absolute distance between ideal points of each country as well as affinity data (although affinity data will not be used)

In addition to the data provided in the combined package by Erik Voeten, other global datasets can be used to include additional measures relevant to the study. Data can be acquired from credible databanks from the United Nation, the World Economic Forum, or the World Bank.

**Outline of Methodology and Approach**

1. Collect data to identify potential voting blocs (e.g. regions, economic status, ideal points)
2. Identify voting blocs by evaluating a variety of groupings for consistent voting patterns (e.g. how much in agreement are the countries of the “western” voting bloc)
3. Blocs with the greatest consistency within themselves will then be used to predict the outcome of particular issue using the voting categories provided in the data.
4. Further analysis can be conducted to determine if more specific (i.e. more factors related to the particular issue) are helpful in determining the outcome of a vote.

Ideally, the project will aim to answer a question like the following:

**Example Question**

Will the UNGA pass or reject a resolution condemning the human rights violations in Syria?

Output (X):

If X > 0, X = YES

If X < 0, X = NO

**Potential Pseudo Model**

Topic weights would be assigned based on the topic being voted on. In the example question above, more weight would be given to the regional and ideal point weights, because the topic deals more with idealisms and regional conflicts.

**Example Algorithm**

X = (Regional Topic Weight)\*(Pro Regional Bloc - Anti Regional Bloc) + (Economic Topic Weight)\*(Pro Economic Regions - Anti Economic Regions) + (Ideal Topic Weight)\*(Pro Ideal Points - Anti Ideal Points) . . .

**Deliverables**

The deliverables for the project will be the code and statistics used to develop the model, identify the voting blocs, and asses the main factors characterizing a voting topic. A supplemental paper on the project will also be provided.