Countries at the United Nations General Assembly had mostly stable political positions aligned with regional groups during the period 2012-2020

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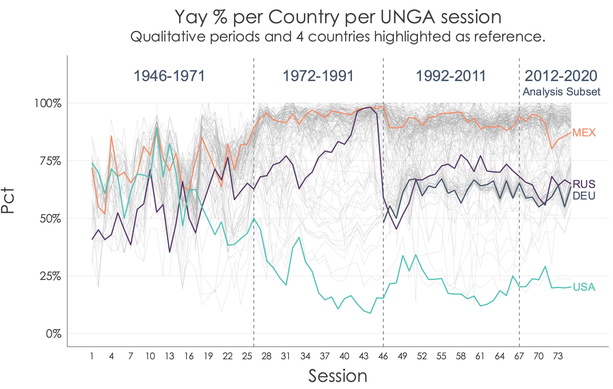
Background

Bailey, Strezhnev, and Voeten (2017) first incorporated IRT models for States' Foreign Policy ideal points at the United Nations General Assembly along a single "US-liberal order" dimension.

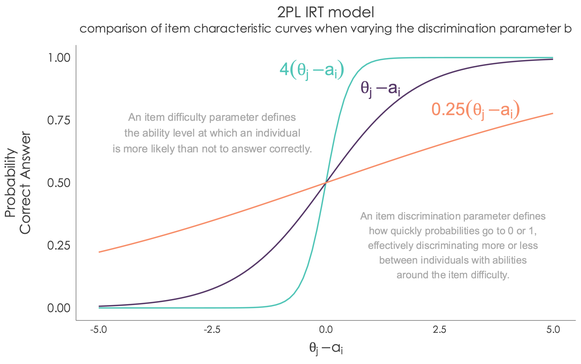
Bailey and Voeten (2018) extended the model to 2 dimensions. The first dimension is Western liberalism, but the second one is less clear yet still relevant in several periods.

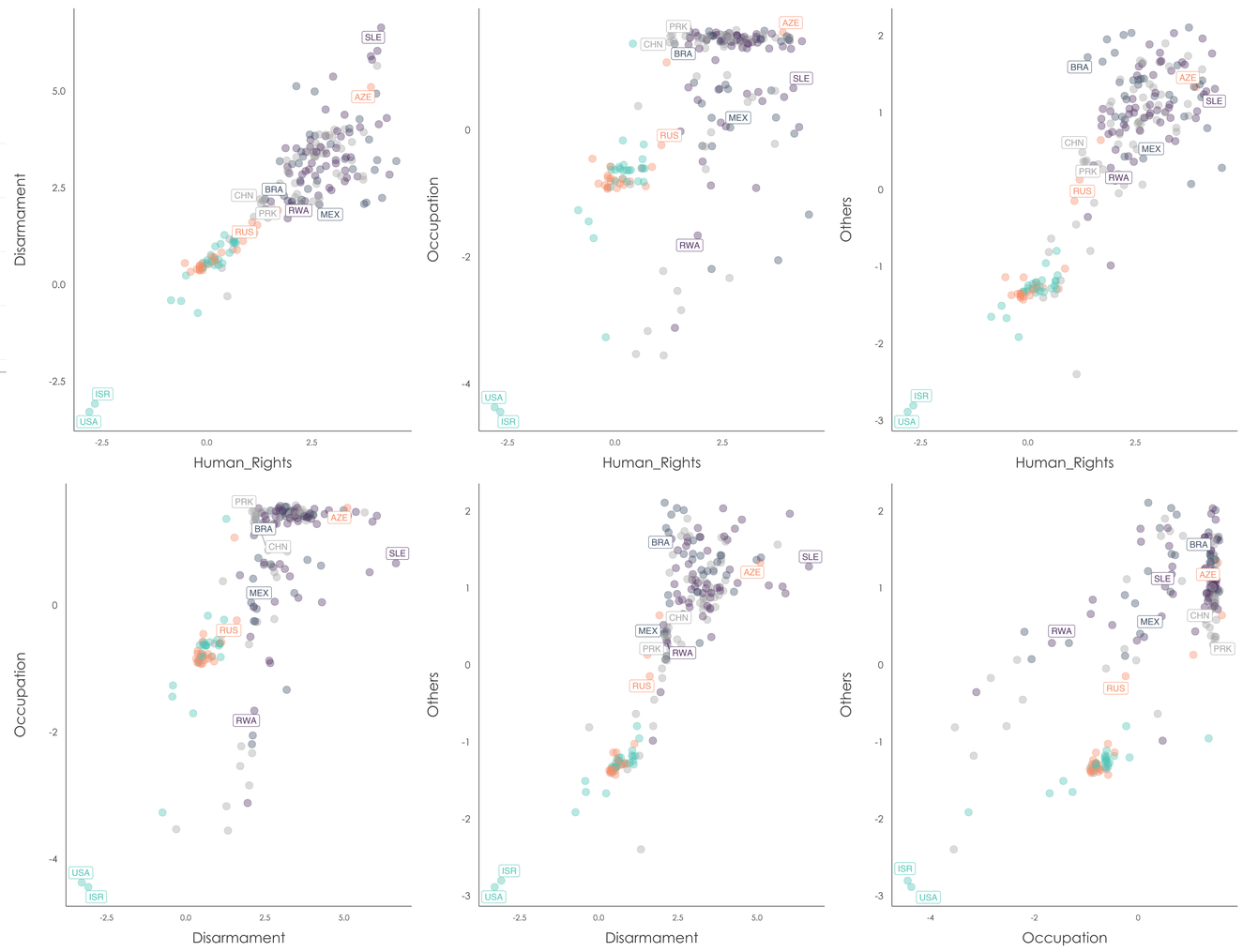


IRT Models

Attempt to measure a latent variable via several *items* or questions related to it. The assumption is that individuals with higher values are more likely to answer "correctly" items intended to measure said variables.

$$P(Y = 1|\theta, a, b) = \frac{exp\{b(\theta - a)\}}{1 - exp\{b(\theta - a)\}}$$



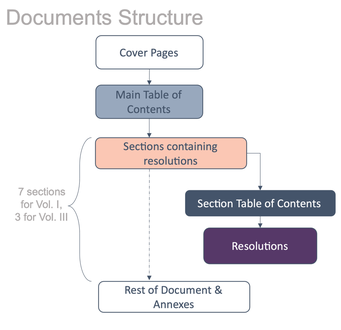


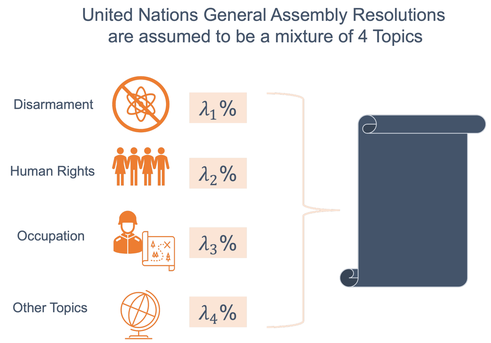
Biplots of Countries' estimated ideal points during the analysis period for each pair of dimensions. Selected countries highlighted via jittered labels. Colors represent regional groups: West, Eastern Europe, Latin America, Africa, Asia-Pacific.

But is it possible to leverage metadata?

We follow Lauderdale and Clark (2014) and use texts and topic modeling to better inform dimensions.

We have access to UNGA Resolution Compilations for Sessions between 2012 and 2020. These were parsed, and Correlated Topic Modeling was used to identify 4 topics that would define the Political Dimensions of contestation at the General Assembly.





Multidimensional 2PL Static Model

Countries have a 4-dimensional ideal point vector θ_j

We have K individual votes each made by a given country on a given resolution. For the k-th of such votes, the topic weights of its resolution form a linear combination with the voting country's ideal points to yield a vote specific position:

$$\tilde{\theta}_k = \sum_{d=1}^{4} \lambda_{i[k],\,d}\ \theta_{j[k],\,d}$$

This k-th position is then the ability parameter of a standard IRT logistic model including difficulty and discrimination parameters for the corresponding resolution, where a success is a Yay vote:

$$P(Y_k = 1|\Theta, a, b) = \frac{exp\{b_{i[k]}(\tilde{\theta}_k - a_{i[k]})\}}{1 - exp\{b_{i[k]}(\tilde{\theta}_k - a_{i[k]})\}}$$

A dynamic model in which countries' positions evolve each year was also fit but found to be worse in terms of WAIC, while also relying on "bridging resolutions".

Future Work

Extending the model from dichotomous answers to allow for abstentions is possible, as well as incorporating 3PL and 4PL models, but questions on identifiability remain. The dataset may also be enriched by parsing more sessions.