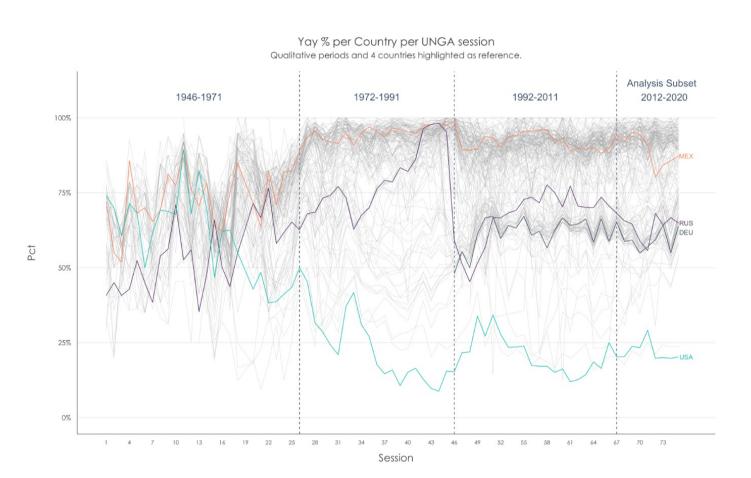
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ST955 MSc Dissertation 2021,
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Electronic version at
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Background

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.

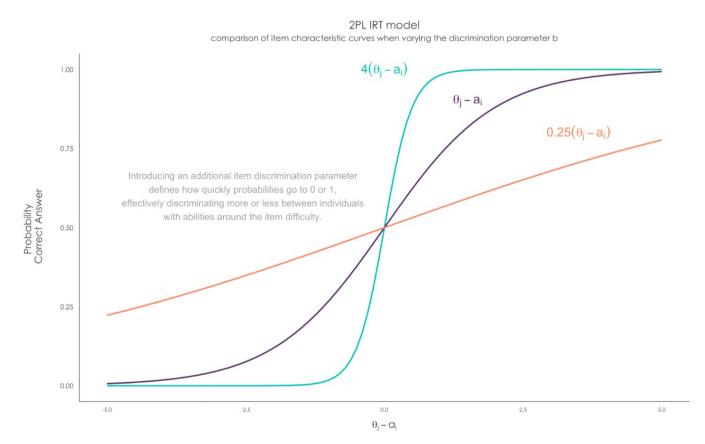
Bailey and Voeten (2018) extended the model to 2 dimensions. The first dimension is Western liberalism, but the second dimension is less clear yet still relevant in several periods.



IRT Models

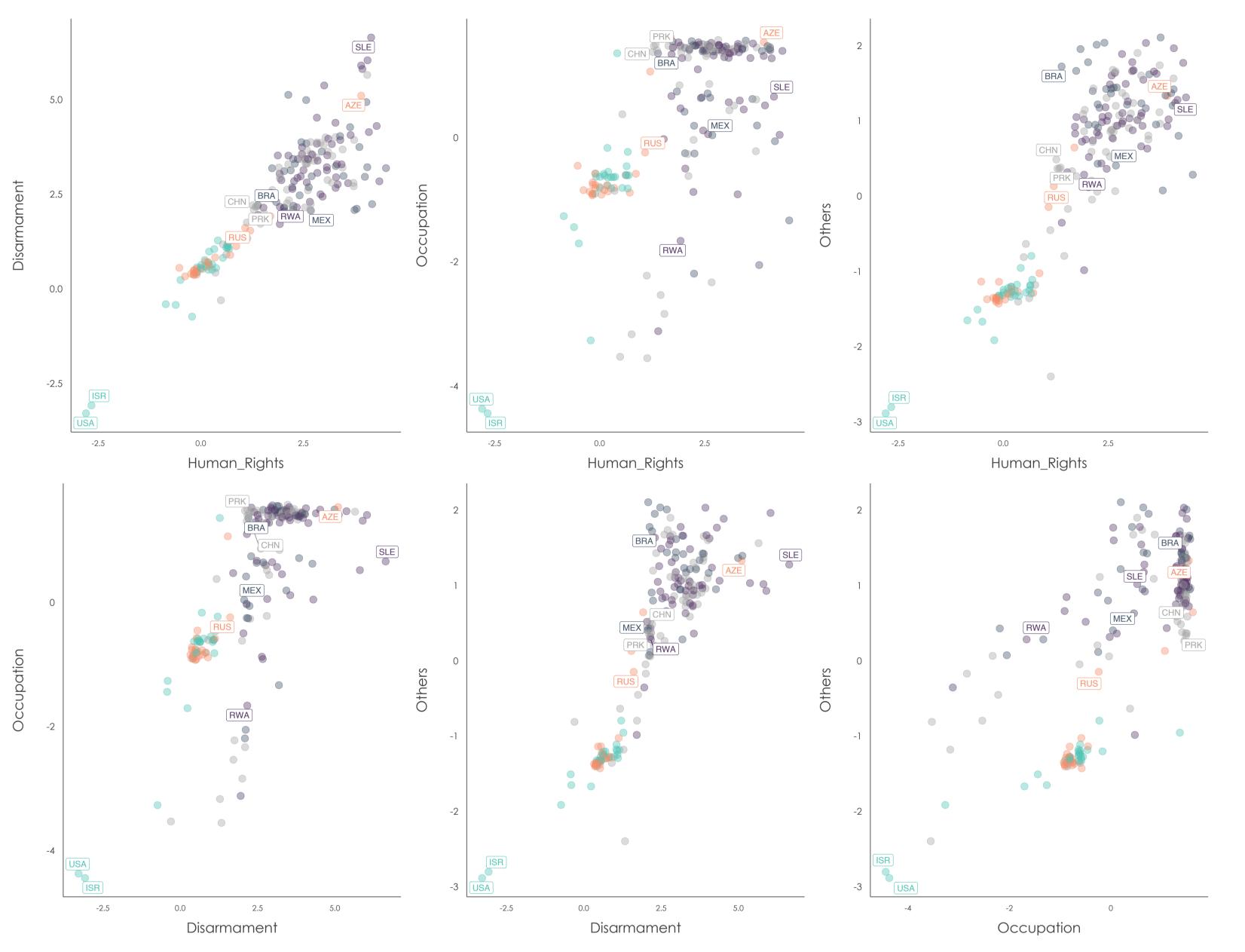
Attempt to measure a latent variable via several *items* or questions related to it. The assumption is that individuals with higher values are more likely to answer "correctly" items intended to measure said variables.

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



But is it possible to leverage metadata?

Countries at the United Nations General Assembly, between 2012 and 2020, had mostly stable positions aligned with regional groups

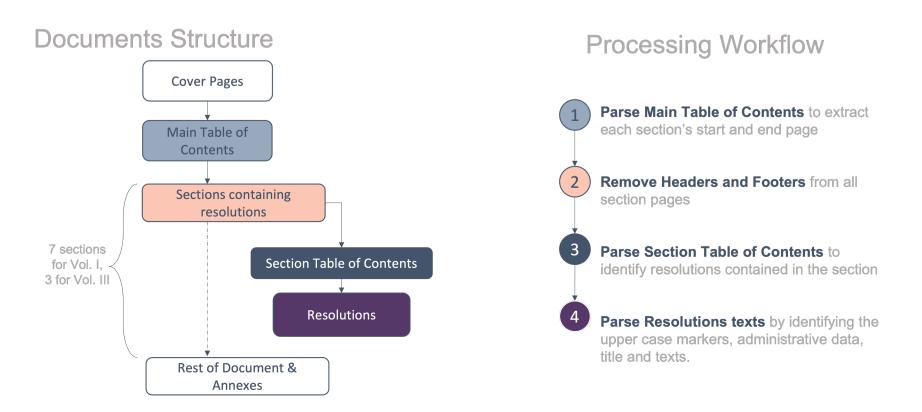


Biplots of Countries' estimated ideal points during the analysis period for each pair of dimensions. Selected countries highlighted via jittered labels. Colors represent regional groups: West, Eastern Europe, Latin America, Africa, Asia-Pacific.

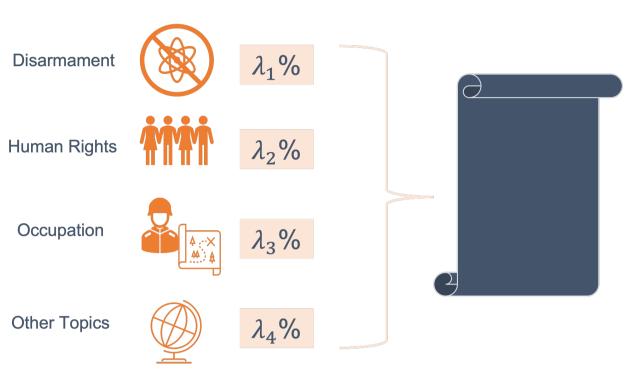
We follow Lauderdale and Clark (2014) and use texts and topic modeling to better inform dimensions...

We have access to UNGA Resolution Compilations for Sessions between 2012 and 2020.

These resolutions were parsed, and Correlated Topic Modeling was used to identify 4 topics that would define the Political Dimensions of contestation at the General Assembly.



United Nations General Assembly Resolutions are assumed to be a mixture of 4 Topics



Multidimensional 2PL Static Model

Countries have a 4-dimensional ideal point vector θ_i

We have K individual votes formed by a given country on a given resolution. For the k-th of such votes, the topic weights of the i(k)-th resolution form a linear combination with the j(k)-th 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 logistic model including difficulty and discrimination parameters for the i(k)-th resolution, where a success is a Yay vote:

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

A dynamic model in which countries' positions evolve each year was also fit but was found to be worse in terms of WAIC.