

# Estimating Dynamic State Preferences from United Nations Voting Data\*

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## Abstract

UN General Assembly votes have become the standard data source for measures of states preferences over foreign policy. Most papers use dyadic indicators of voting similarity between states. We propose a dynamic ordinal spatial model to estimate state ideal points from 1946-2012 on a single dimension that reflects state positions towards the U.S. led liberal order. We use information about the content of the UN's agenda to make estimates comparable across time. Compared to existing measures, our estimates better separate signal from noise in identifying foreign policy shifts, have greater face validity, allow for better inter-temporal comparisons, are less sensitive to shifts in the UN's agenda, and are strongly correlated with measures of liberalism. We show that the choice of preference measures affects conclusions about the democratic peace.

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# 1 Introduction

Foreign policy preferences play a crucial role in international relations theory. Yet, they are not directly observed and thus need to be inferred from observable behavior. Votes in the United Nations General Assembly (UNGA) have become the standard data source for constructing measures of state preferences as they are comparable and observable actions taken by many countries at set points in time. Unfortunately, with few exceptions, scholars have ignored methodological advances in the roll-call literature on how to estimate latent preferences from observed votes. Moreover, existing measures fail to separate changes in the UN's agenda from shifts in state preferences. Consequently, these measures frequently suggest that states change their foreign policy orientations when all that changes is the content of votes.

~~We develop a state-of-the-art ideal point model to estimate dynamic national ideal points along a single dimension from 1946-2012. We use resolutions that were identical across years to serve as bridge observations to help make the preference estimates comparable over time. The resulting estimates consistently capture the position of states vis-a-vis a U.S.-led liberal order. During the Cold War, this was the East-West conflict between communist and capitalist states. Since the end of the Cold War, the non-Western pole has been occupied by a motley crew of states that have little ideological cohesion other than their opposition to the Western liberal order.~~

Our estimates have several advantages over dyadic similarity indicators such as Affinity or S-scores (Gartzke, 1998; Signorino and Ritter, 1999). First, our estimates allow for more valid inter-temporal comparisons. For example, according to S-scores, Russia and the United

States have more conflictual relations in the mid-2000s than the USSR and the U.S. ever had during the Cold War. By separating agenda changes from changes in preferences, we offer more plausible estimates of long-term shifts in this and other relationships. This matters given the frequent usage of UN-based preference measures in dynamic analyses.

Second, our estimates are better able to distinguish signal from noise in identifying meaningful shifts in foreign policy orientations. For example, ideal points analysis of our ideal point estimates consistently indicates that left-wing regimes in Latin America were systematically less favorable to the U.S. than right-wing regimes. We do not find this pattern with S-scores.

Finally, dyadic indicators can only reveal shifts in preference similarity between two states, but not which state has shifted. Ideal point estimates allow us to assess, for instance, whether the Soviet Union or the United States was responsible for the two states moving closer or further apart. This allows researchers to examine foreign policy orientations in monadic analyses. Moreover, we offer assessments of uncertainty in our point estimates.

We first discuss how UN votes have been used in the literature. We then explain our estimation method and data. The following section evaluates the validity of our estimates. Finally, we replicate an application to the study of conflict Gartzke (2000) and find that replacing affinity measures with ideal point estimates makes the original findings robust to modeling the dynamics appropriately.

## 2 Literature, Data, and Method

### 2.1 The Use of UN Votes in the Literature

Scholars have used UN votes to measure foreign policy preferences virtually since the institution was established (e.g. Ball (1951); Lijphart (1963); Moon (1985); Vengroff (1976); Russett (1966)). This interest shows little sign of abating. We found 75 articles published between 1998 and 2012 that used UN votes to construct measures of national preferences.

Many papers use UN-based preference measures as independent variables. These include analyses of whether foreign policy interests affect the likelihood of inter-state disputes (e.g. Gartzke, 1998; Oneal and Russett, 1999; Reed et al., 2008), the severity of those disputes (Sweeney, 2003), the occurrence of acts of terrorism (Drehera and Gassebner, 2008), the distribution of foreign aid (e.g. Alesina and Dollar, 2000), the lending behavior of the World Bank and IMF (e.g. Thacker, 1999; Dreher and Jensen, 2007), the probability of signing treaties (Koremenos, 2005), and the reception of diplomatic missions (Neumayer, 2008).

Others have used UN-based measures as dependent variables to ascertain whether socialization through IGOs leads to convergence in member state interests (Bearce and Bondanella, 2007), whether leadership and regime changes alter foreign policy orientations (Dreher and Jensen, 2013), whether the EU has started to form a cohesive foreign policy (Drieskens, 2010), whether the U.S. is becoming increasingly isolated on foreign policy issues (Voeten, 2004), or whether U.S. or Chinese foreign aid or trade successfully buys foreign policy adherence (Flores-Macías and Kreps, 2013).

Voting in the UN differ from some other voting bodies in that three explicit vote options

are widely and deliberately used in the UN: Yea, Nay or Abstain. The informative abstentions are an important feature of voting and virtually all studies treat a Nay vote as a stronger signal of disapproval than an abstention.<sup>1</sup> Abstentions differ from absences which typically do not reflect a country's views but instead are ~~due to causes such as a temporary lack of government~~. Absences are strongly correlated with the occurrence of civil wars and coups (Voeten, 2013). In 68% of votes where a state is absent it will also be absent on the next roll call. This suggests strongly that absences are not usually indications of discontent with a resolution and should thus not be equated with abstentions, as some scholars do Rosas, Shomer and Haptonstahl (2015).

Most existing UN-based preference measures are based on dyadic similarity of vote choices. The most widely used is Signorino and Ritter's (1999) S score.<sup>2</sup> S scores treat UN votes as interval-level measures of preference expression with abstentions halfway between a Yea and a Nay vote (they exclude absences).<sup>3</sup> The S score is a Euclidean distance measure between every dyad in the UN. It is calculated as

$$S_{ab} = 1 - \frac{\sum |Y_{av} - Y_{bv}|}{V}$$

where  $v = 1, \dots, V$  indexes votes, a and b refer to two countries and Y refers to votes, taking on one of three alternatives: {Yea ( $Y=1$ ), Abstain ( $Y=2$ ), Nay ( $Y=3$ )}. The S-score equals 1 if two countries agree on all votes and minus 1 if two countries maximally disagree on all resolutions.

The core weakness of S-scores and related similarity indices is that they assume a straight-

<sup>1</sup>An exception is Voeten (2000) who treats both abstentions and no-votes as signals of disapproval.

<sup>2</sup>Other approaches include Lijphart's (1963) index of agreement which is a proportion but otherwise identical to the S score, Mesquita's (1975) ordinal measure using Kendall's Tau-b and Gartzke's (1998, 2000) Spearman rank-order correlation coefficient.

<sup>3</sup>Signorino and Ritter offer a generalized version but scholars use the one discussed here.