

Article

# Dynamic clustering of Asian regionalisms: Empirical testing of United Nations multilateral treaty participation by social network analysis

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Abstract: This paper investigates the evolving clustering and historical progression of "Asian regionalisms" concerning their involvement in multilateral treaties deposited in the United Nations system. We employ criteria such as geographic proximity, historical connections, cultural affinities, and economic interdependencies to identify twenty-eight candidate countries from East Asia, Southeast Asia, South Asia, and Central Asia for this empirical testing. Using a social network analysis approach, we model the network of these twenty-eight Asian state actors alongside 600 major treaties from the United Nations system, identifying clusters among Asian states by assessing similarities in their treaty participation behavior. Specifically, we observe dynamic changes in these clusters across three key historical eras: Post-war reconstruction and transformation (1945-1968), Cold War tensions and global transformations (1969–1989), and post-Cold War era and globalization (1990–present). Employing the Louvain cluster detection algorithm, the results reveal the evolution in cluster numbers and changes in membership status throughout the world timeline. The results also identify the current situation of six distinct Asian clusters based on states' inclinations to engage or abstain from multilateral treaties across six policy domains. These findings provide a foundation for further research on the trajectories of Asian regionalisms amidst evolving global dynamics and offer insights into potential alliances, cooperation, or conflicts within the region.

**Keywords:** Asian regionalism; multilateral treaty; social network analysis; cluster detection; Louvain algorithm

## 1. Introduction

The paper endeavors to empirically test the sustainability and historical development of what we denote as "Asian regionalisms" within the context of participating in multilateral treaties. The term "regionalism" encompasses the diverse forms of collaboration, integration, or cooperation among countries within a specific region. This includes establishing initiatives, agreements, or organizations designed to strengthen connections, address common challenges, encourage economic cooperation, and bolster political, social, or cultural relations among nations. When delving into regionalism, it considers both the commonalities and distinctions among countries within the same geographical area. Consequently, our identification of prospective participants for empirically testing Asian regionalisms is initially grounded in specific criteria such as geographic proximity, historical relationships, cultural affinities, and economic interdependencies among states.

The selected candidates for empirical testing of Asian regionalisms consist of twenty-eight countries of four distinct regions: East Asia (encompassing China, North Korea, Japan, and South Korea), Southeast Asia (comprising Brunei, Cambodia,