

Measuring Globalization: Exploring methods to map the changing structure of world trade, political power, and other indicators of global dominance

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I am a postdoc at Princeton University's Institute of International and Regional Studies, and a member of a research team researching globalization processes. Our current project is focused on examining the changing structure of world trade. I apply social network methods and correspondence analysis, and I am working with statistician Jan de Leeuw to develop what we refer to as a geometric representation, combining aspects of log-linear analysis with multidimensional scaling and correspondence analysis. Our latest study compared the structure of world trade at 3 key points in time—1980, 1990, and 2001—but our goal is to create a more dynamic model. Our theoretical goal is to evaluate the continual salience of theories of world division such as world systems theory, trilateralism, and competing economic globalization theories. We recently held a conference on world trade which included participation by experts on global commodity chains, logistics, trade data, and area specialists who examine the impact of changes in world trade on local, national, and macro-regional economies. We explored the importance of the structure of world trade to local, national and macro-regional processes.

My recently completed dissertation project incorporated Michael Mann's theory of power, and the eigenvector centrality measure recently modified to incorporate negative relations to examine state alliances in the decades before and after the dissolution of the Soviet Union, signaling the end of the Cold War. I collected 21 years of UNGA roll call votes, state attributes and state IGO membership information as data to examine state similarity. I examined changing state alliances across four dimensions of social life: ideological/cultural, economic, military and political represented in the content of UNGA roll call votes in the light of what competing theories of world divisions would predict.

My data showed a North-South division, not just about economic issues but about human rights, with development issues central to both. Second, while there is an Islamic bloc, it is primarily based on two issues—Israel/Palestine and gender. Third, there is a very solid, expanding EU, while the United States is somewhat isolated except as a military coordinator. Fourth, several other macro-regional organizations are becoming important mechanisms of economic integration, cultural diffusion, and enhancement of security and democratization. Fifth, globalization processes are having differential effects within and across regions. (Europe is strongly integrated while Latin America is less cohesive.) Finally, Mann's theory of power blends well with network methodology and allows for a more nuanced research of complex globalization processes that are too complex and in flux to support a single paradigm such as clashing civilizations.

My long term research agenda is to deepen our understanding of globalization processes using a variety of methods and empirical data. I believe network theory and methods are particularly well suited for this project. I am also interested in exploring dynamic and longitudinal models, and whether complexity theory can be useful in examining the multi-level, multi-dimensional processes of globalization.

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