

# Polish Opposition Network Analysis

A Cross-Disciplinary Digital Humanities Project

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## Historical Background

Between Stalin’s demand that Poland be forced behind the Iron Curtain and the 1989 Round Table Talks, the Communist USSR controlled nearly all facets of political and social life in Poland. Simultaneously, an opposition movement formed, most famously represented by the independent, self governing Trade Union “Solidarity”. The opposition dispersed banned books, led strikes, and joined workers, academics and journalists together under their shared experience of Communist repression.

Beginning on February 6th, 1989, members from the Communist government and the opposition movement convened in Warsaw for the “Round Table Talks”. These meetings represented a significant compromise on the part of the Communist government, namely that the opposition would be allowed to set the parameters for semi-free elections, and ultimately establish Poland’s first non-communist government since 1945. The Revolutions of 1989, which witnessed the entire Eastern Bloc switch from Communism to democratic capitalism, had begun.

## Our Goal

To discover which individuals or groups were most central in the development of the Polish Opposition movement during the Communist Period (1945-1989). In doing so, we hope to:

- 1. Confirm historical consensus using quantitative methods.
- 2. Uncover new trends unavailable to the qualitative historical paradigm.

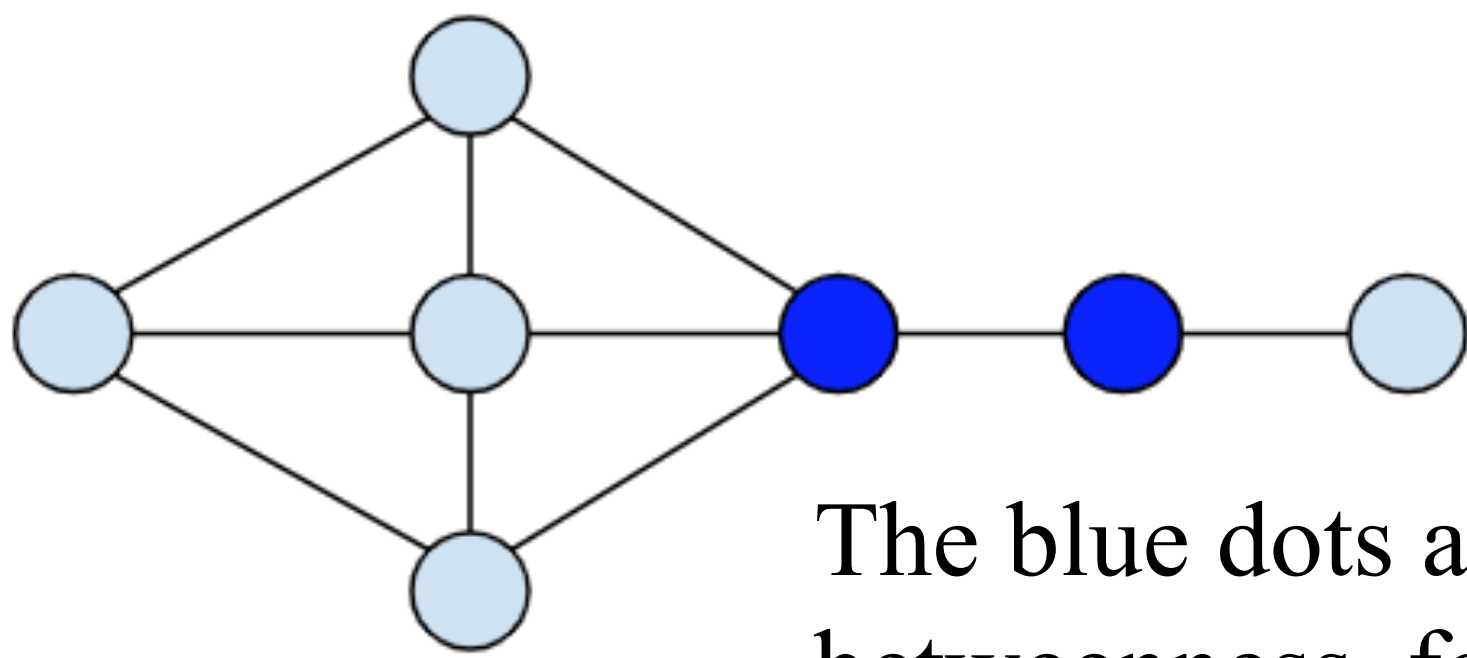
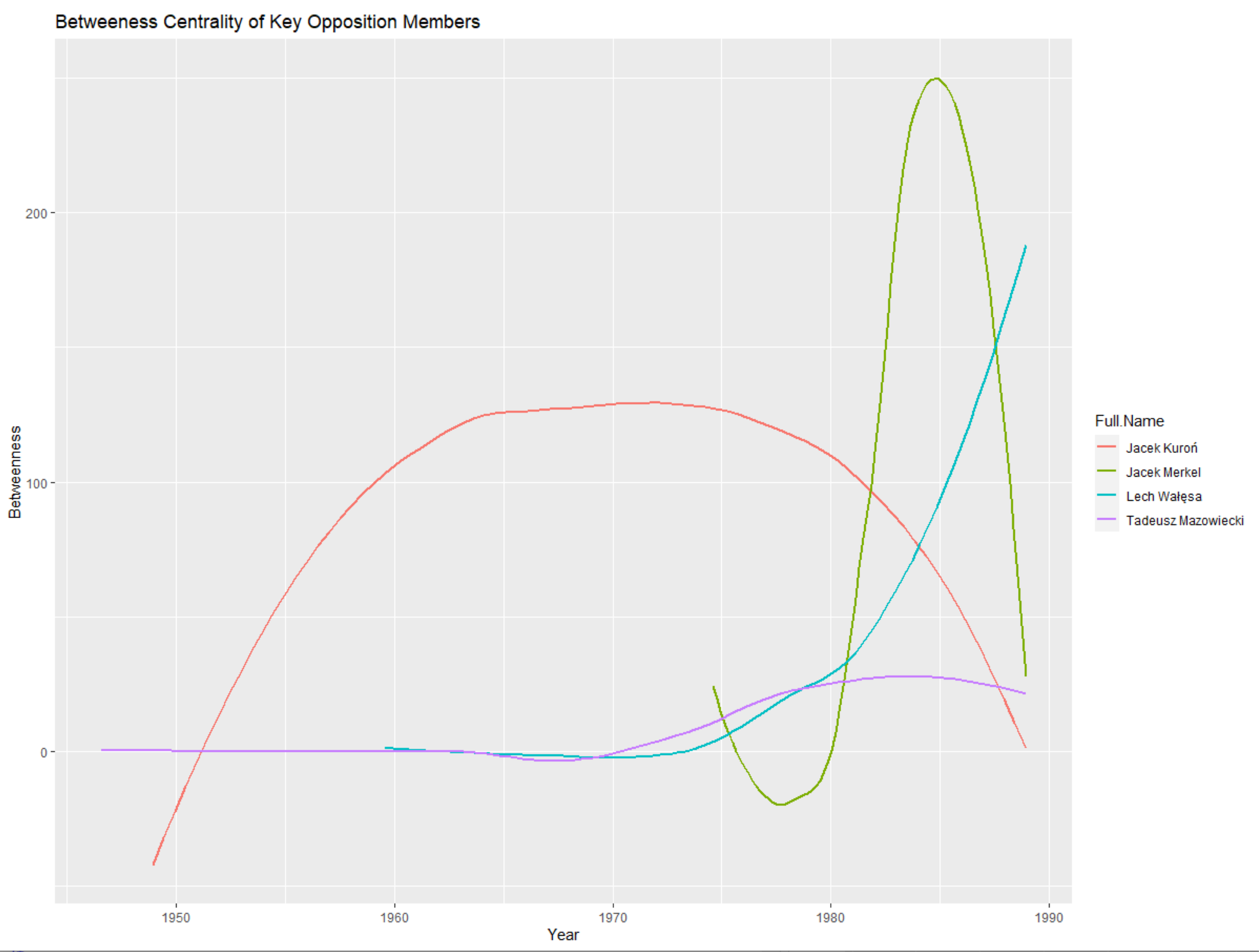
## Methodology

A Network is a system consisting of nodes and edges. Nodes are the individual units that are related to each other in the network ( in our case, opposition members who participated the Round Table). The edges are connections between nodes (institutional affiliations)

To evaluate which nodes were the most consequential in forming the polish opposition movement, we used betweenness centrality, which measures the number of times a node lies on the shortest path between other nodes.



Solidarity leader Lech Walesa addresses striking workers in Gdansk, Poland in 1989.



The blue dots are high in betweenness, for, if removed, the network is broken in two.

## The Data set

Our analysis is made possible by an original historical dataset pulled from archival records in Poland. Dr. Domber first compiled a list of all the opposition members who participated in the 1989 Round Table. Each row of the data set represents one opposition member. For each opposition member, we recorded all institutions (like a college, or a labor union) that said member was active in. The vast bank of institutional affiliations, along with the start and end date of each IA, allowed us to calculate statistical measures like betweenness centrality over time.

Bratkowski	Stefan	Jagiellonian University Faculty of	09/01/1951	12/31/1956
Brzuzy	Ryszard	KWB Belchatów May 1988 Strike	05/01/1988	05/30/1988
Budzyński	Marek	Warsaw Polytechnic Faculty of Ar	09/01/1959	08/31/1968
Bugaj	Ryszard	PAN Institute of Economics	01/01/1982	02/01/1989
Bujak	Zbigniew	KSS-KOR Collaborator	01/01/1978	09/30/1981
Byczewski	Iwo	School of Political Science Paris	09/01/1966	08/31/1967
Czeliński	Andrzej	Romuald Targutta Black One War	01/01/1964	12/31/1972
Chłap	Zbigniew	Medical Academy Kraków	01/01/1950	02/01/1989
Chmiel	Maria	Medical Academy Poznań Pediatr	01/10/1950	01/01/1981

