(Dis)Loyal Alliances: A Transnational Cold War Network of Power

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Background & Introduction

From 1947 to 1991, the Cold War divided the world in two. While the tense struggle between American capitalism and Soviet communism never erupted into direct conflict between the two superpowers, it was indirectly expressed through propaganda campaigns, espionage, and psychological warfare. Social connections mattered greatly in a suspicion-fueled environment such as this, influencing how individuals formed political opinions and made political commitments against communism [1, 2].

Our client, **Professor Andreea Ritivoi (Department of English),** is interested in analyzing the social network of Western high-level politicians and Eastern European political refugees who fled the Soviet Bloc to understand the connections and influence among nations, agencies, and individuals. Our research questions are:

- Which individuals were the most influential in the network of communication?
- What clusters emerged out of the disparate high-ranking politicians, lowly refugees, and media personnel in our network?
- Is the degree of a given person in our network tied to whether they worked privately, i.e. spoke independently of their country's government?
- Were people located in Washington DC more likely to have more ties?

Data Overview

Our data source, provided via extensive research from Professor Ritivoi's research assistants **Daniel McNulty** and **Lucia Shen,** consists of 110 documents from the CIA and Wilson Center Digital Archive pertaining to political refugees fleeing the Soviet bloc, primarily in 1950s Eastern Europe [3]. All documents were written from the Western perspective. We analyzed 108 individuals in total, and formed a network with connections based on co-occurrence within documents.

We also tracked 5 covariates for the individuals:

- West vs East (76 Western, 36 Eastern)
- Private vs Non-private (22 private, 53 not private)
- Media vs Non-media affiliated (12 in media, 63 not in media)
- DC-based vs Non DC-based (27 located in DC, 46 who are not)
- Organization (FBI, CIA, etc.)

In our degree distribution (right), we see westerners tend to have more connections. There's also one major outlier, Allen Dulles, with a degree count of 30.
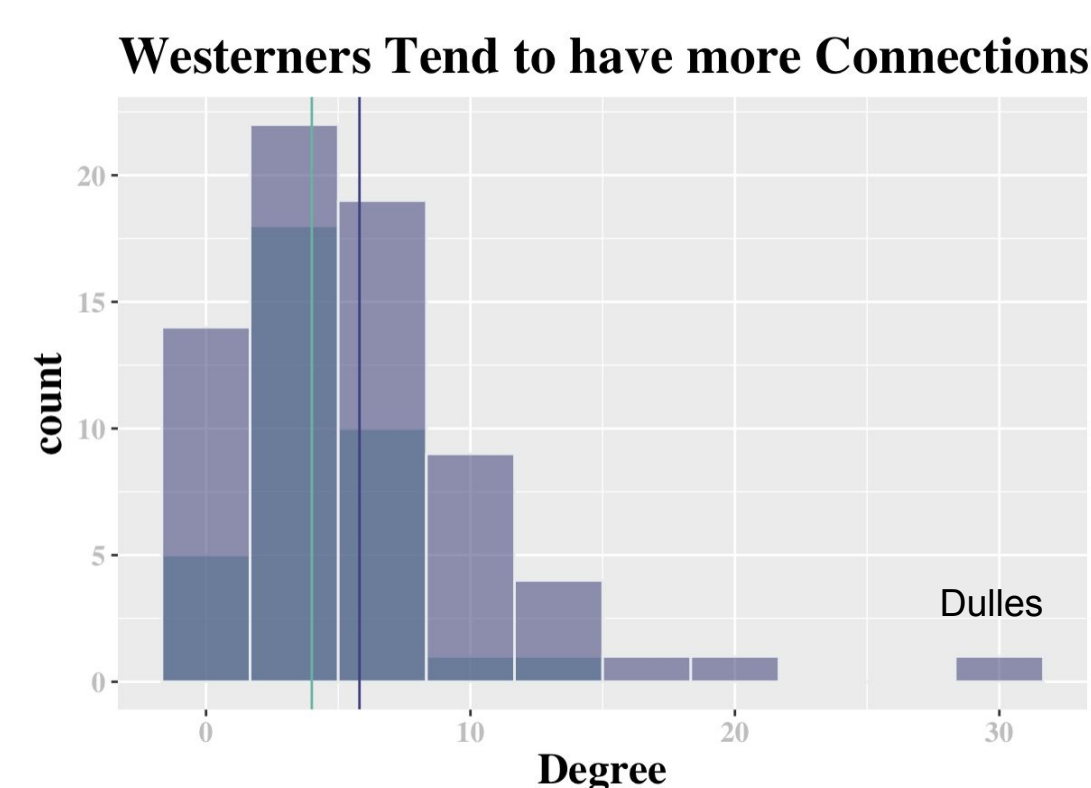

Figure 1: Histogram showing the density distribution of individuals in our network, split by Bloc. Note Dulles is a massive outlier.
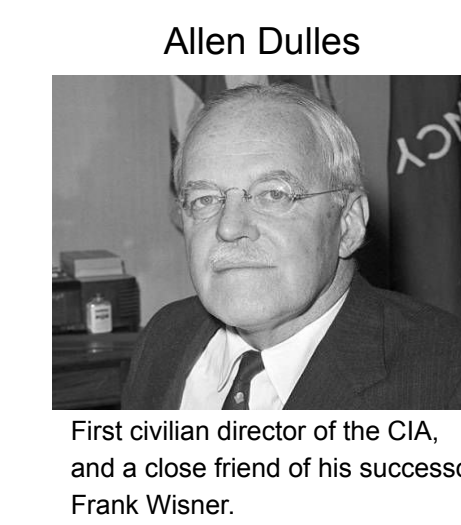
Methods

- We used various measures of centrality, each with a different meaning, to determine the most influential figures in our network.
  - Degree centrality ("popular"): The number of edges a given node sends out
  - Betweenness centrality ("bridge"): Measure proportional to the number of times a given node appears on the shortest path between two other nodes
  - Eigenvector centrality ("high status"): Measure indicative of whether a node is connected to lots of other central nodes
- We estimated a Stochastic Block Model to detect clusters in our network.
- We estimated an Exponential Random Graph Model to investigate the impact of covariates on how likely an individual was to send an edge.

Analysis & Results

Most Central Figures in our Network

Degree	Betweenness	Eigenvector
Dulles	*Dulles*	*Dulles*
Wisner	*Wisner*	Smith
Smith	Nagy	Jackson
Jackson	Eisenhower	Kyes
Joyce	*Thompson*	Morgan

Table 1: Most central figures in our network. Note that Nagy and Thompson rank quite highly in betweenness centrality but not other measures.

Allen Dulles
https://www.imdb.com/
First civilian director of the CIA, and a close friend of his successor, Frank Wisner.

Frank Wisner
https://www.archyde.com/
Previously worked in Office of Strategic Services, later succeeded Allen Dulles as Deputy Director of Plans in the CIA.

Exponential Random Graph Model Covariate Analysis

	Model 1		Model 2	
Effects	Estimate	SE	Estimate	SE
Degree	-2.785 ***	0.459	-4.341 ***	0.561
West	0.046	0.252	-0.612 *	0.295
Private	-1.057 ***	0.258	-0.595 *	0.281
DC	0.241	0.159	0.237	0.167
Media	0.754 **	0.245	1.178 ***	0.306
Same Region			1.154 ***	0.350
Same Private			1.483 ***	0.339
Same DC Loc			-0.207	0.205
Same Media			0.520	0.321

*p < 0.05, **p < 0.01, ***p < 0.001

Table 2: Estimated ERGMs, with and without controlling for within group connections.

Network Graph Clustered by SBM

SBM Clusters uncover key circles of interaction in the East & West
- **Cluster 1:** Military connections, Psychological Strategy Board
- **Cluster 2:** Major Western politicians
- **Cluster 4:** FBI, journalists, unknown individuals, highly connected to Wisner
- **Cluster 5:** Eastern individuals
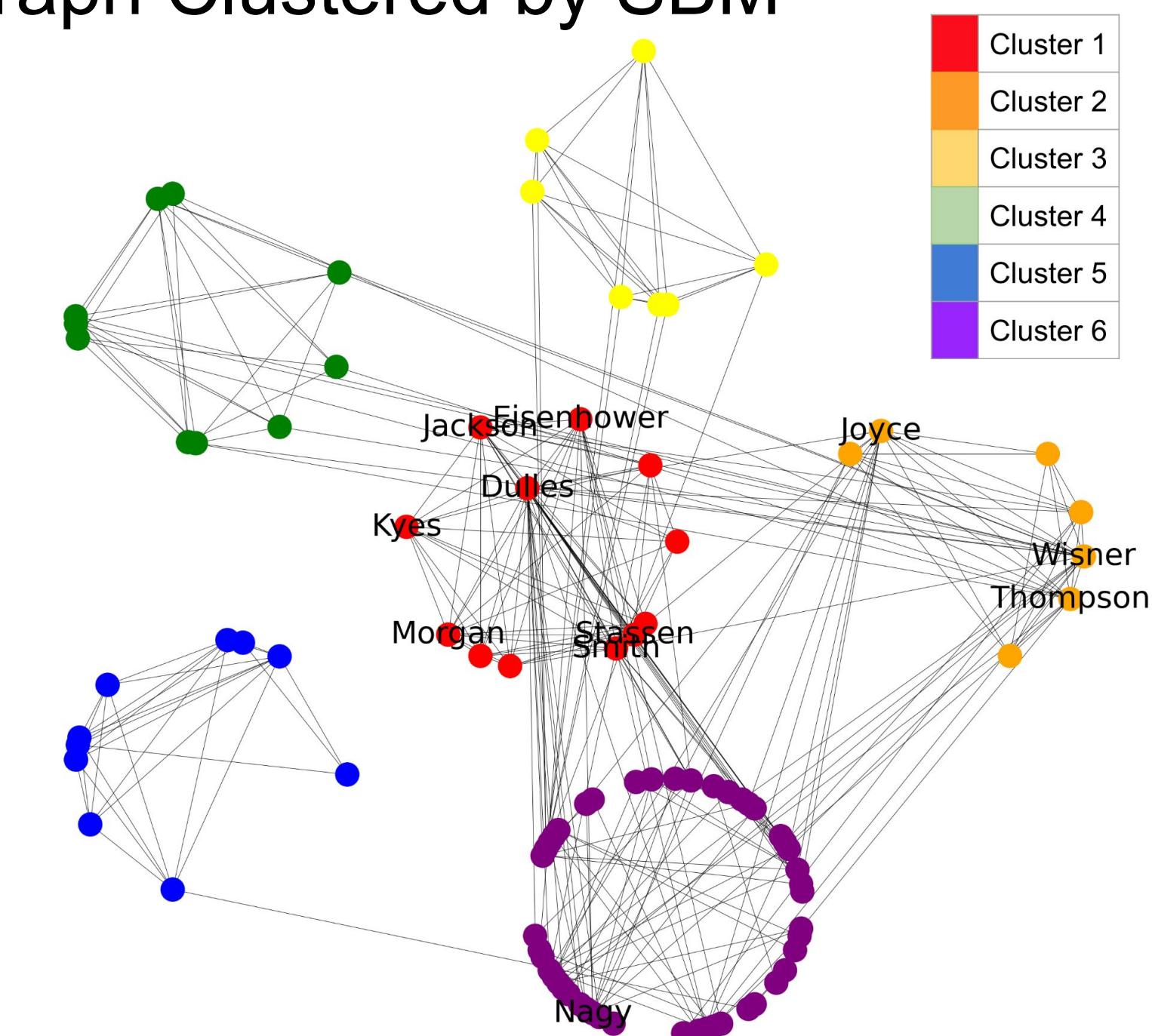- **Cluster 6:** Highly connected to Thompson, Joyce, Dulles, Wisner

Figure 2 (above): Stochastic Block Model (SBM) detected 6 clusters in the network using Integrated Completed Likelihood (ICL) as selection criteria. Labeled nodes have a degree of >10.
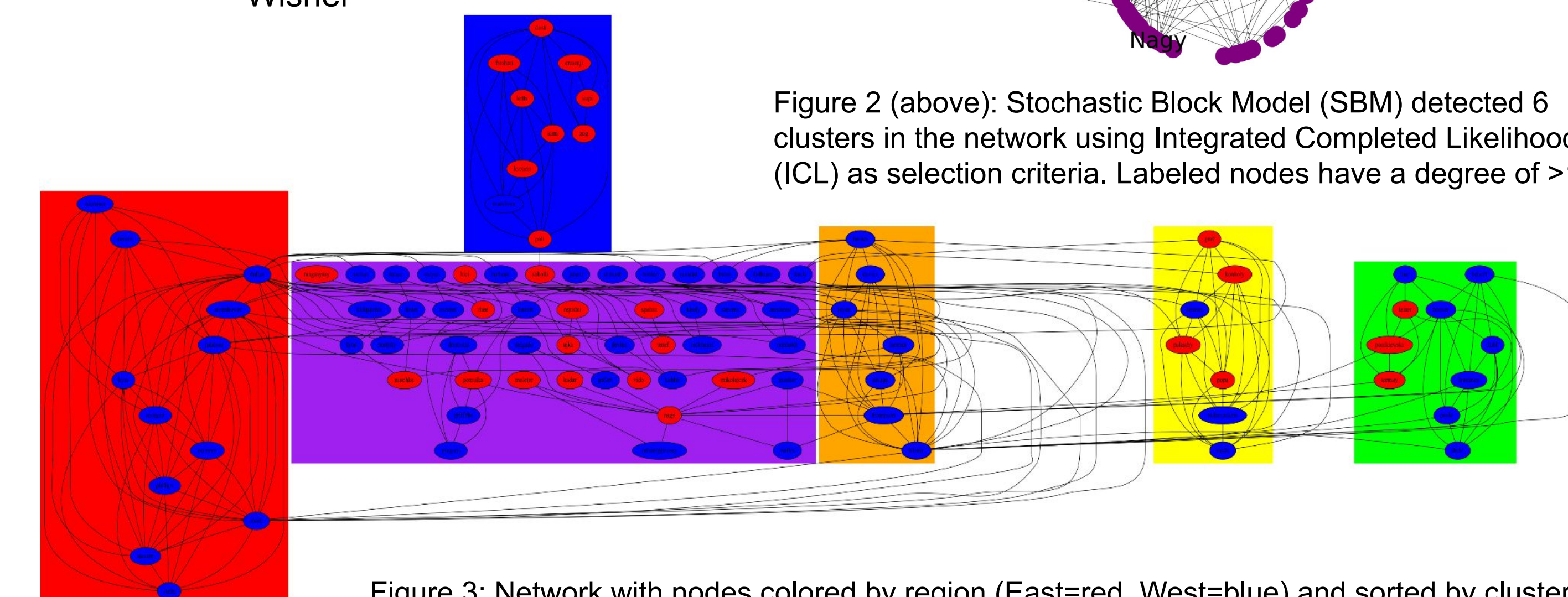

Figure 3: Network with nodes colored by region (East=red, West=blue) and sorted by cluster.

Conclusions

- Allen Dulles and Frank Wisner are by far the two most influential figures in the network.
- Llewellyn Thompson, Allen Dulles, Frank Wisner, and Robert Joyce are the main individuals that are connected to clusters other than their own.
- Individuals working in media are more likely to have ties to other individuals
- Individuals of the same region and private/public status are more likely to be connected (e.g. west to west, non-private to non-private)

References

[1] Schlesinger, A. (1967). Origins of the Cold War. *Foreign Affairs, 46*(1), 22–52. https://doi.org/10.2307/20039280
[2] Gaddis, J. L. (1992). International Relations Theory and the End of the Cold War. *International Security, 17*(3), 5–58. https://doi.org/10.2307/2539129
[3] Deudney, D., & Ikenberry, G. J. (1992). Who Won the Cold War? *Foreign Policy, 87*, 123–138. https://doi.org/10.2307/1149164
[4] Abdalla. (2014, October 9). *The Cold War freezes then thaws, 1972 - 1991.* SlideServe. Retrieved April 19, 2022.