

Network Analysis of Parliamentary Debates

A case study on the UK House of Commons

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Aims and Objectives

- Represent and analyze deliberative processes
- How is the interaction structured? Who talks to whom? Why?
- Focus on the House of Commons debate transcripts
- ... and study those data using network theory

- Research questions:
 - Do MP consistently respond to MP with different opinions?*
 - Can we detect any meaningful community*

Building the Networks



the data (TheyWorkForYou.com)



Mr Jon Owen Jones (Cardiff Central, Labour/Co-operative)

If it is the case, as the Government continually say, that the French position was so uniquely influential, why did not the Government and the United States pursue the second resolution, which—if the Government have given us a true reflection of the Security Council's position—would show that the French were isolated?



Mr Tony Blair (Prime Minister; Sedgefield, Labour)

For the very reason that I have just given. If a member of the permanent five indicates to members of the Security Council who are not permanent members that whatever the circumstances it will veto, that is the way to block any progress on the Security Council. *[Interruption.]* With the greatest respect to whoever shouted out that the presence of the troops is working, I agree, but it is British and American troops who are there, not French troops.

The tragedy is that had such a resolution ensued and had the UN come together and united—and just British and American troops—Saddam Hussein might have complied. But the moment we canvassed support for an ultimatum, there was an immediate recourse to the language of the veto and postponement of action; the choice was action or no action at all.



Mr Llew Smith (Blaenau Gwent, Labour)

What does the **Prime Minister** mean by an "unreasonable veto"? Were the 30 occasions on which the US has used the veto reasonable or unreasonable?



Mr Tony Blair (Prime Minister; Sedgefield, Labour)

We can argue about each one of those vetoes in the past and whether they were reasonable or unreasonable. I will give you a veto as follows. In resolution 1441, we said that it was Saddam's final opportunity and that it was agreed by all members of the Security Council. What is surely unreasonable is for a country to veto at a very point when we might reach agreement and when we are—not unreasonably—saying that he has not done these months without full compliance, on the basis of the six tests or action will follow. For that country to veto a resolution in all circumstances is what I would call unreasonable.

Question put, That the amendment be made—

The House divided: Ayes 217, Noes 396.

Division number 117

[See full list of votes](#) (From [The Public Whip](#))

Question accordingly negatived.

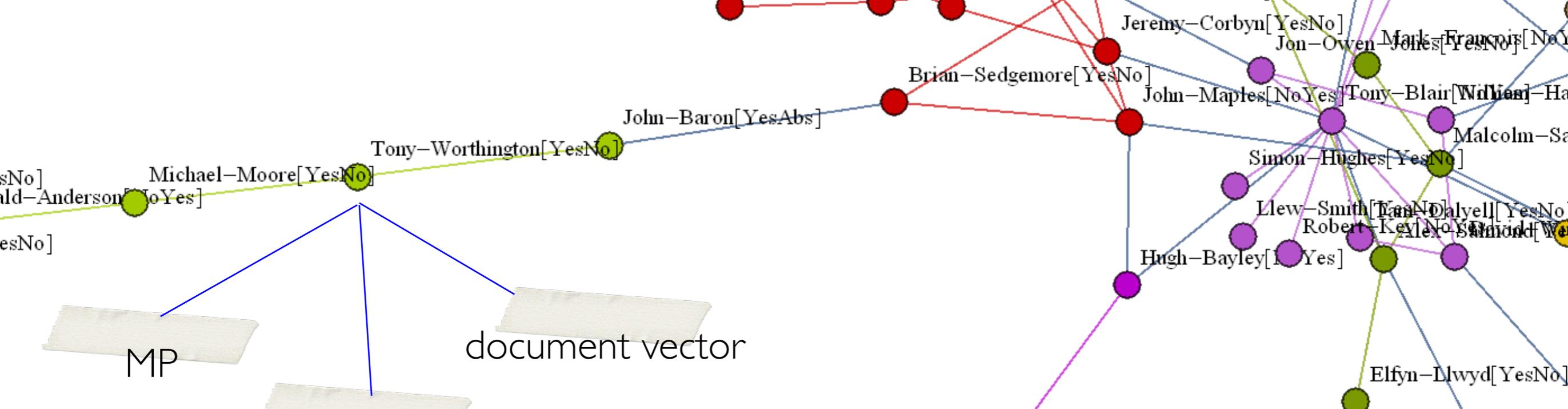
Main Question put:—

The House divided: Ayes 412, Noes 149.

Division number 118

[See full list of votes](#) (From [The Public Whip](#))

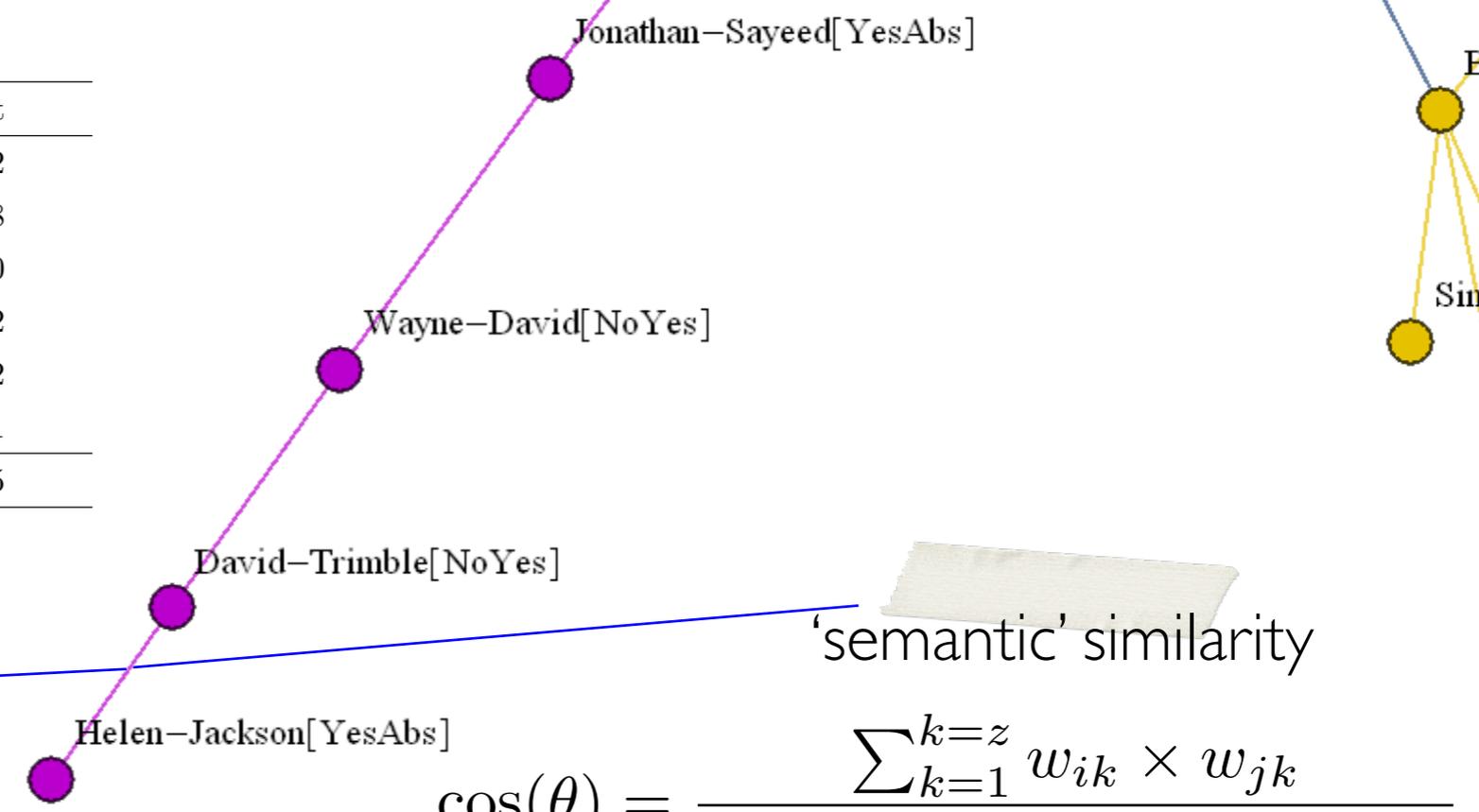
Question accordingly agreed to.



MP
document vector
voting profile and party

Voting Profile	Count
NoYes	52
YesNo	38
YesAbs	10
AbsYes	2
AbsAbs	2
YesYes	1
Total	105

interruptions



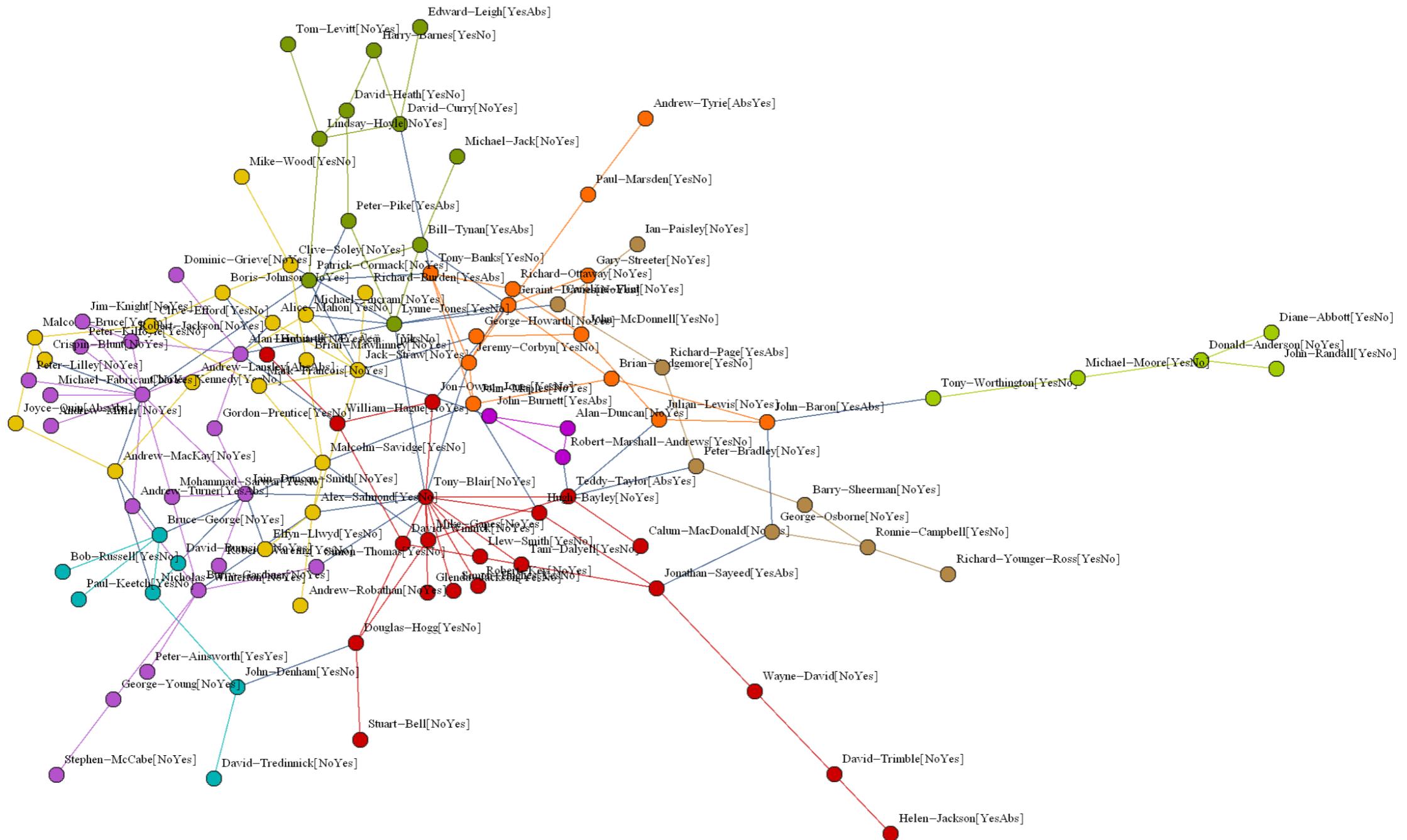
'semantic' similarity

$$\cos(\theta) = \frac{\sum_{k=1}^{k=z} w_{ik} \times w_{jk}}{\sqrt{\sum_{k=1}^{k=z} w_{ik}^2} \times \sqrt{\sum_{k=1}^{k=z} w_{jk}^2}}$$

Debate networks

- Parliamentary approval of the invasion of Iraq (18 March 2003)
- Parliamentary refusal of the invasion of Syria (29 August 2013)
- 'Open' and uncertain debates
- Large debates

Iraq debate: interruptions



Syria debate: interruptions



Syria debate: relevant interruptions



Analysis

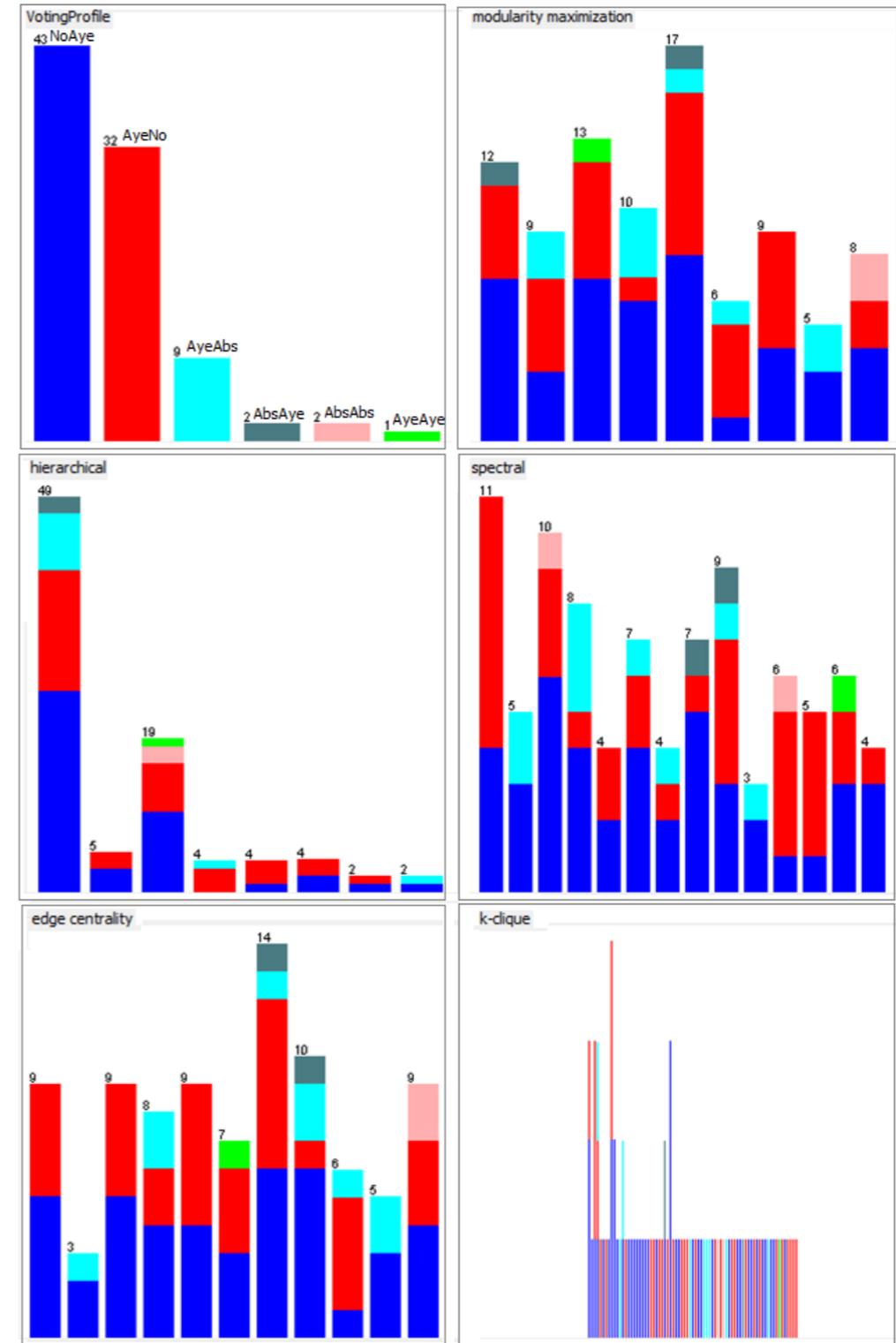
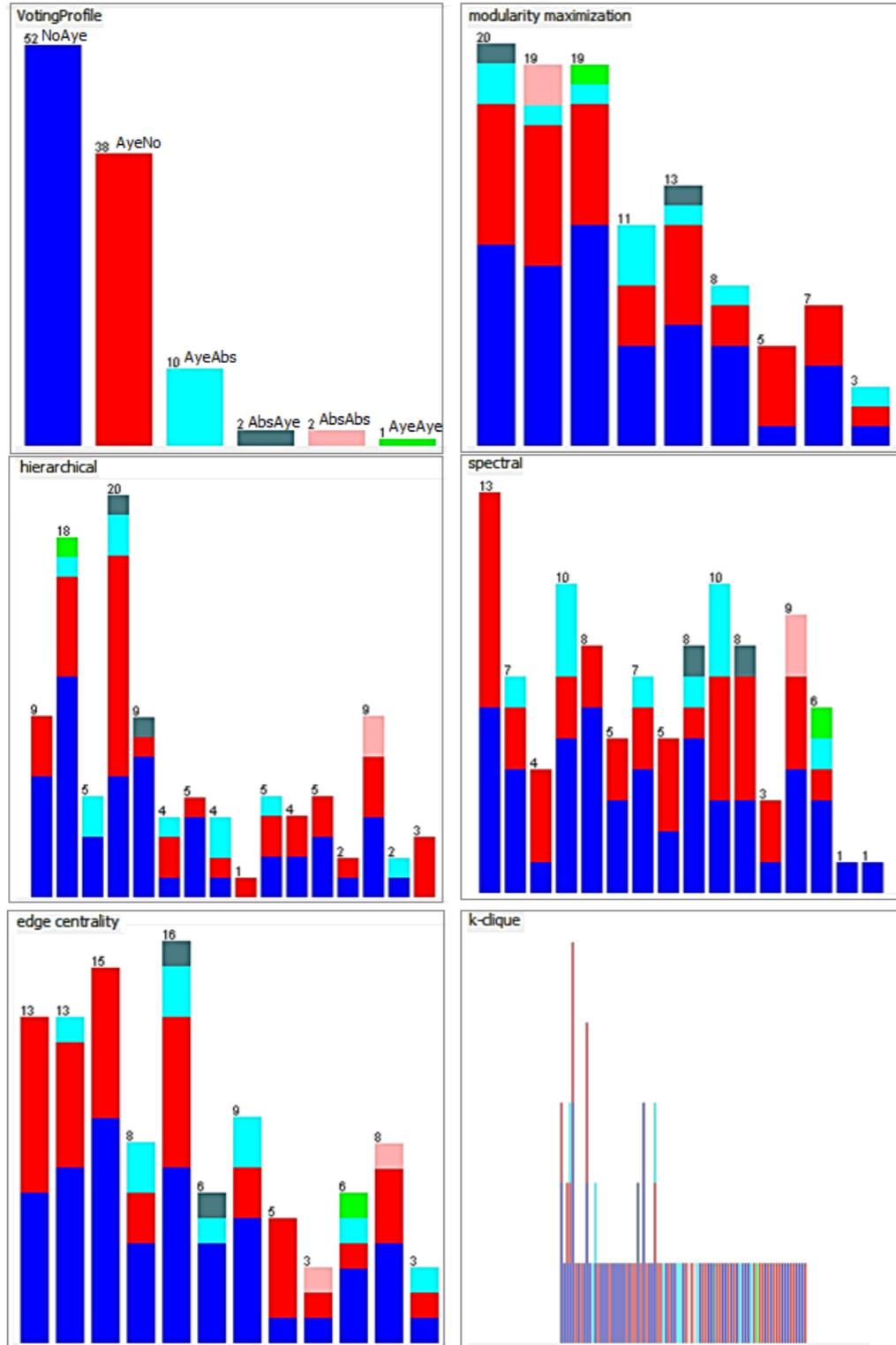


Assortativity

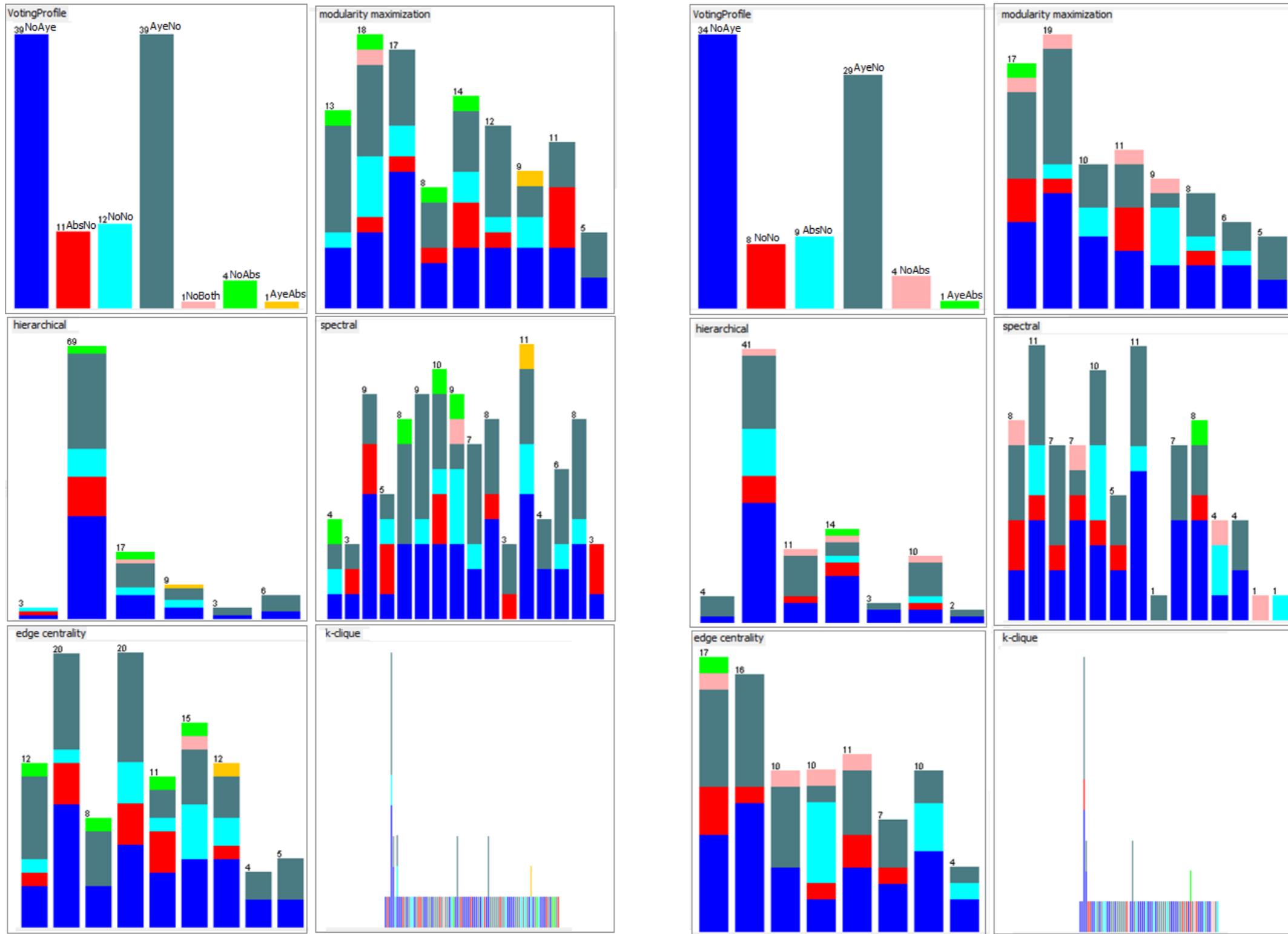
	Party	Voting Profile
Iraq Debate		
interruption network	-0.205	-0.264
relevant interruption network	-0.262	-0.174
Syria Debate		
interruption network	-0.089	-0.103
relevant interruption network	-0.147	-0.146

- MPs talk consistently with MPs with different opinions
- Disassortativity increases from interruption to relevant interruption networks for party, vice versa for voting profile
- Speeches differentiate between parties more markedly in the Iraq debate rather than the Syria one

Iraq debate: communities



Syria debate: communities



Community detection

- Communities do not correspond to 'natural' communities (parties and voting profile)
- They consistently contain representatives from the two main voting profiles (and parties)
- They may be interpreted as identifying 'topics' or 'phases' in the debate



Thank you!



