The Afghan nexus: Anomie, neo-patrimonialism and the emergence of small-world networks

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Introduction

Power in Afghanistan can be explained by the notion of the *qawm*. *Qawms* denote opportunistic solidarity networks in Afghanistan. We computationally grow *qawms* by means of agent-based social simulation informed by real actor behaviour. Emerging from our simulation are social networks which bear important structural and functional resemblance with their target system when subsequently compared with networks which are independently generated from "real world" relational data describing Afghan power structures. Both, the model and the target system, exhibit small-world network characteristics as well as a comparable composition of the networks' clusters in regard of agent/actor types and inter-agent/-actor relationships.

Modelling qawms

Conflict societies are societies *sui generis*. They function according to their own social laws and are structurally and processually disjointed from societies lacking a comparable degree of organised violence. The concept of anomie provides a theoretical contextualisation for conflict societies. An anomic situation emerges when the means to attain a specific goal, such as accumulation of wealth or power, run out of social control (Marks, 1974). Anomic spaces are political spaces lacking strong modern institutions, such as the state's monopoly on organised violence, stability of the law and protection of property rights.

The prevailing organisational principle in contemporary conflict societies is neo-patrimonialism. Weber (1980) understands patrimonial power as power based on authority, suppressed subjects and paid military organisations, by virtue of which the extent of a ruler's arbitrary power as well as grace and mercy increases. Stakeholders interested in gaining power in contemporary conflicts have to act neo-patrimonially to accumulate and redistribute monetary and material as well as social resources.

Qawms are one particular instantiation of neo-patrimonialism and are a dominating feature of Afghan society. Mousavi (1997) refers to *qawms* as complex interpersonal networks of political, social, economic, military, and cultural relations. For Afghan stakeholders *qawms* are a means to acquire, maintain and increase power. Afghan social structure does not take the form of a unified hierarchy and nor does an individual *qawm*. However, each *qawm* has a *primus inter pares* who competes with other *primi inter pares* as well as with *qawm*-internal rivals for manifold reasons (Roy, 1994).

We apply an evidence-based and declarative multi-agent social simulation approach. It is evidence-based because agent behaviour is informed by qualitative data derived from case studies and interviews conducted in Afghanistan; it is declarative because of a descriptive – in contrast to imperative – implementation of the evidence-based agent behaviour. The model space is populated by ten different agent types: politicians, religious leaders, commanders , businessmen, warriors, civilians, farmers, drug farmers, organised criminals and drug dealers. The agents behave according to a neo-patrimonial rational. If a politician is in need of military protection, he approaches a commander. In return, a commander receives political appreciation by mere cooperation with a politician. If a businessman wants to be awarded a governmental construction contract, he relies on a politician's political connections. In return, the politician receives a monetary provision, for example bribes. If a politician wants beneficial publicity, he asks a religious leader for support. The religious leader, in return, becomes perceived as a religious authority. If a warrior seeks subsistence for his family, he lends his services to a commander, who, in return, provides him with weapons, clothes, food and/or money. And so forth... Our model represents this behaviour.

Results

The left graph in figure 1 depicts a network visualisation for the simulation output. Agents affiliated with each other are linked via a line. Three distinct but nevertheless interconnected clusters of agents are visible in the network. Each cluster consists of a variety of agent types. Agents assumed to be more powerful then others, i.e. politicians, commanders, religious leaders and organised criminals, are prevalent in the two more dense clusters on the right hand side. The third cluster on the left consists only of civilians, farmers and warriors. It is possible that real centres of power emerge in highly populated areas exhibiting a large variety of agent roles.

The reasons for the evolution of this network of clustered affiliations are manifold: agents affiliate because they share the same ethnicity or religion or because they have established a business relationship or because they seek protection with a commander. But in general, the clusters can be perceived as emergent properties of agent neo-patrimonial behaviour as reified by our agent rules. The model generates data of the sort we expected and its output can therefore be considered as representations of *qawms*.

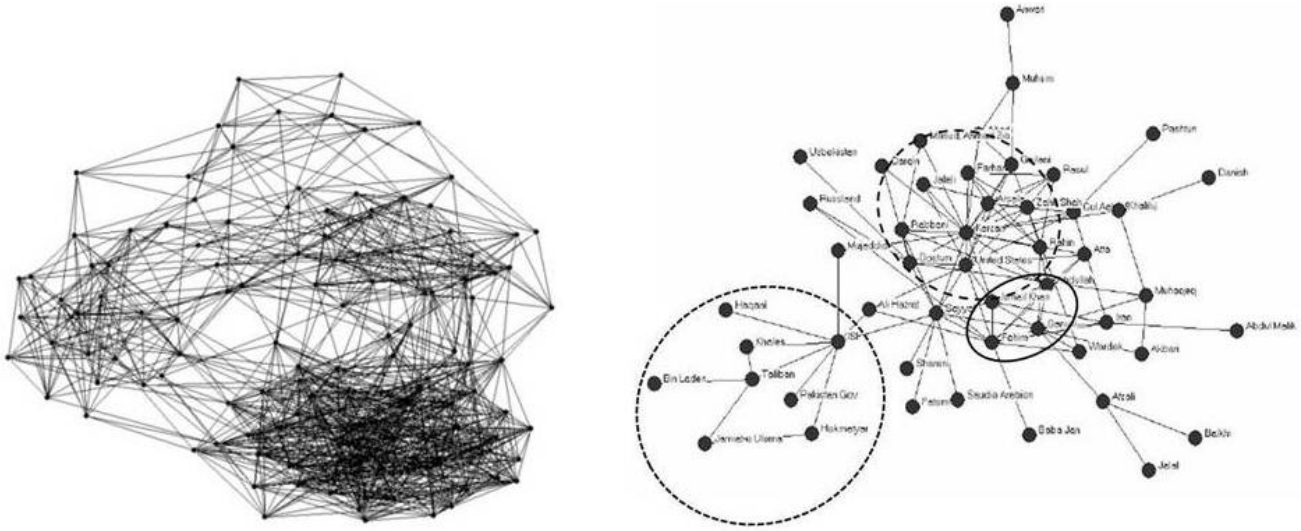

Figure 1: The left graph depicts a simulated network of *qawms*. The right graph depicts a relational network of Afghan power holders and non-Afghan stakeholders in the year 2004 (Fuchs, 2005).

The graph on the right hand side of figure 1 depicts relations among Afghan power holders as well as non-Afghan stakeholders in the year 2004 (Fuchs, 2005).[1] Afghan power holders are for example Hamid Karzai, the current Afghan president, or Marshall Mohammed Fahim, former leader of the Northern Alliance; non-Afghan stakeholders are for example the Pakistani Inter Services Intelligence (ISI) or the United States. This graph consists of three different clusters as well. A first cluster (dashed line) can be identified around Hamid Karzai who at the time was closely related with Rashid Dostum, the strongmen in Mazar-e Sharif and then Chief of the Army, Burhanuddin Rabbani, a former Afghan president, Zahir Shah, the King, and the United States. The second cluster (line of square dots) that can be identified lies in the lower left corner and is antagonistic to the first cluster as it consists, amongst others, of the Taliban, the ISI, Yunus Khales and Gulbuddyn Hekmatyar, both former Mujahedin commanders with strong ties to the ISI. Less obvious is the third cluster (solid line), which is built around Younus Qanooni, Marshall Fahim and Abdullah Abdullah – confidants of the assassinated Ahmad Shah Massud – and Amir Ismael Khan, former Governor of Herat.

The reason – in a nutshell – there are three clusters in 2004 is that Karzai consolidated his power on the basis of opportunistic stakeholders, but in disregard of the Afghan people. This allowed the Taliban, with the help of the ISI, to make a comeback in many Pashtun areas. Moreover, Karzai alienated the Mujahedin, which led to the formation of the third cluster.

Both graphs have in common that they structurally represent an emerging small-world network that is based on neo-patrimonial behaviour, i.e. a *qawm*. While the emergence of three clusters on each occasion appears to be mere coincidence, the similar structures among the clusters have a common cause. All

[1] More recent data suggests that the actors in 2004 were more densely interconnected than suggested by Fuchs. A consideration which needs further elaboration.

clusters in both networks consist of a variety of agents/actors that incorporate a variety of different roles. This means that the depicted clusters are not homogeneous organisations of power, but rather heterogeneous concentrations of power generated by mutually depended and interacting agents/actors. Analog to the computational model's agents behaviour, actors in the "real world" network behave according to their roles: In the "Karzai cluster", the president represents the politician, Dostum the commander and Rabbani the spiritual leader; in the "Taliban cluster", the Taliban represent a military force and a religious movement, Hekmatyar the commander and Khales the spiritual leader; in the third cluster, Abdullah and Qanooni represent the politicians, Fahim and Ismael Khan the commanders, while the latter represents also a spiritual leader. Thus, a structural and functional equivalence based on qualitative evidence between the model and the target system is observable.

Conclusions

The presented computational agent-based model generated an artificial social structure that resembles *qawms*, an organisational principle based on neo-patrimonial behaviour. Neo-patrimonialism suggests that mutual interaction among different types of actors leads to the emergence of a complex organisational structure, which contains a number of power centres which themselves consist of a number of political, economical and military stakeholders cooperating in a limited way.

The subsequent comparison of a simulated network and a network of relations among local Afghan leaders based on real-world relational data brought to light important results: The both, model and target system, exhibit small-world network characteristics and are comparable in regard of organisational and functional structure. Although it is difficult to compare networks of different sizes with each other, cross-validation (cf. Moss and Edmonds 2005) should be based on methods that allow for a formalised identification of structural equivalence, as for example suggested by Reitz and White (1989).

We expect our case-study on Afghan power structures to have a general impact on conflict studies. Case-study-based evidence from other conflict regions suggests that small-world networks emerging from neo-patrimonial behaviour in anomic conflict settings prevail also in other cultural contexts.

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