Disobedience as a Mechanism of Change

David Burth Kurka¹, Jeremy Pitt¹, Peter Lewis², Alina Patelli² and Anikó Ekárt² 12th IEEE SASO, 3-7 Sep 2018, Trento Italy

Imperial College London



¹Department of Electrical and Electronic Engineering, Imperial College London

²Aston Lab for Intelligent Collectives Engineering, Aston University

Introduction

Disobedience in Society

- **Disobedience** has been used historically as a form of resistance and call for change in unfair regimes.
- Among the factors that motivate widespread disobedience are:
 - The iron law of oligarchy The tendency of rulers to change norms to their own benefit.
 - Principled violation of policy Selective common-sense non-application of a sanction.

Disobedience as learning mechanism

- Can these notions be applied to norm-governed MAS?
- Can disobedience be a form of social learning, enabling the construction of adaptive systems?
- How can those concepts enable rule- or ruler-change of corruptive systems?

Base Premises and

Operationalisation

Premises

· Base Premises

- · P1 A norm is in place
- · P2 Compliance is an individual decision
- P3 Existence of monitoring and sanctioning mechanisms

Premises

· Base Premises

- P1 A norm is in place
- · P2 Compliance is an individual decision
- P3 Existence of monitoring and sanctioning mechanisms

· Disobedience Premises

- P4 Fairness decay over time (corruption)
- · P5 Possibility of pardon by law enforcers

Premises

· Base Premises

- · P1 A norm is in place
- P2 Compliance is an individual decision
- P3 Existence of monitoring and sanctioning mechanisms

· Disobedience Premises

- P4 Fairness decay over time (corruption)
- P5 Possibility of pardon by law enforcers

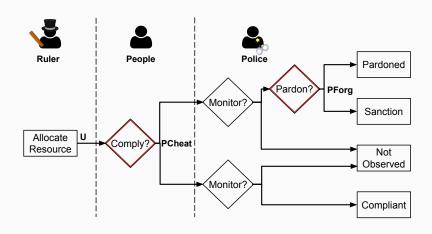
· Transformation Premises

· P6 - Prescribed ruler destitution

Players and its roles

- · Rulers Resource Allocation Policy
- Police Check if apppropriation = allocation
- · People Appropration of resource

Disobedience levels



Players and its roles

- \cdot Rulers U Corruption of allocation policy
- Police P_{cheat} Decision of compliance as reaction of system's feedback (sanction, pardon, not caught)
- People P_{forg} Probability of pardon as function of perceived unfairness (PForg=f(gini))



Final Remarks

- The Principled Policy Violation (PVP) is a pertinent and advantageous mechanism in the development of norm-governed open systems;
- · PVP enable solutions that are:
 - a. Cost effective:
 - b. Tolerant and resilient to accidents;
 - c. Adaptable to different scenarios and behaviour
 - d. Used as a tool of justice perception and policy justification
- · Future steps:
 - Explore externalities associated to PVP (e.g. social capital, resentment, shame)
 - · Investigate adaptable behaviour
 - PVP as mechanism of social change/revolution in unfair environments

Acknowledgemnts

- National Council for Scientific and Technological Development (CNPq), Brazil;
- · Diverse colaborators.





