

The Role of Identities on the Formation of Social Networks: Experimental Lessons

Sanjeev Goyal^{1,2}, Penélope Hernández³, Guillem Martínez-Cánovas³,
Frederic Moisan¹, Manuel Muñoz-Herrera³, and Angel Sánchez^{4,5,6}

¹Faculty of Economics and Christ's College, University of Cambridge, Cambridge CB3 9DD, United Kingdom.

²Christ's College, University of Cambridge, Cambridge CB2 3BU, United Kingdom.

³ERI-CES and Departamento de Análisis Económico, Facultad de Economía, Universidad de Valencia, 46022 Valencia, Spain

⁴Grupo Interdisciplinar de Sistemas Complejos, Departamento de Matemáticas,
Universidad Carlos III de Madrid, 28911 Leganés, Madrid, Spain

⁵Institute UC3M-BS for Financial Big Data, Universidad Carlos III de Madrid, 28903 Getafe, Madrid, Spain

⁶Institute for Biocomputation and Physics of Complex Systems (BIFI), Universidad de Zaragoza, 50018 Zaragoza, Spain

Identity, a person's sense of self, has been often overlooked in the study of socio-economic systems, while in fact it plays a key role in many phenomena not well explained by traditional economic approaches. Pressing societal issues ranging from discrimination through nationalism and separatism to ethnic conflicts are instances where identity is a salient feature that should be in the focus of research [1]. Identity is also relevant in the context of freedom of association, namely the right to join or leave groups of a person's own choosing, and of the group to take collective action to pursue the interests of members. In this paper, we focus on this specific aspect of identity and ask ourselves how does this freedom shape social cohesion and welfare from an experimental viewpoint.

We have carried out an experimental program with the following design: There are two groups of individuals with two possible actions. Everyone prefers to coordinate on same action; however, individuals of type A prefer one action a , individuals of type B prefer the other. Individuals choose actions, simultaneously in two settings: exogenous interaction (i.e., an externally imposed network of contacts) vs. choosing links and action (i.e., a dynamic network where individuals can offer and cut links). This setup relates to earlier experiments on both static and dynamic networks (see, e.g., [2] and references therein but brings identity into the foreplay of the interaction. On the other hand, most of those works deal with prisoner's dilemma games, except for [3, 4] that consider coordination games as we do here.

Our main finding is that the outcome of the experiment depends on the level of conflict in the society. When the experiment is started with a large majority and a small minority, both treatments lead to a situation where all players coordinate in the action of the majority. On the other hand, when conflict is high and the number of individuals of each type is similar, dynamics leads to two segregated components almost always, where everybody chooses the action they prefer and there are no links between different types even if they would positively contribute to each subject's payoff. Subsequently, we discuss a number of mechanisms that can explain this outcome, specifically players using linking as an exclusion device, or the effect of linking costs on trying to reach a coordinated system when the initial conflict is high. Interestingly, when linking is free, players link to all others but still play their preferred option instead of switching to the more profitable one. These results are extremely relevant in order to design policies that facilitate integration in the society.

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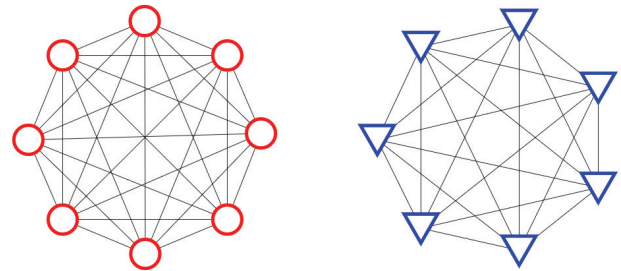


Figure 1: Typical final configuration when the experiment starts with a majority and a minority of similar size. The network segregates in two components where each player chooses what she prefers.

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