**Money and Trust among Strangers**

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in “Proceedings of the National Academy of Science,” 110 (37), 2013

### The Experiment

**Design: Small & Large Groups**

<table>
<thead>
<tr>
<th>N=32</th>
<th>8</th>
<th>4</th>
<th>2</th>
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| ![Diagram showing groups with different numbers of agents](image)

Intertemporal cooperation in an economy of N agents  
5 supergames in each session with a random stopping rule

### Research Question

**A laboratory experiment on monetary systems**

What makes money essential for the functioning of modern society?  
We present evidence for the existence of a relevant behavioural dimension in addition to the standard theoretical arguments

### Control Conditions:

- A simple social dilemma: gift-giving game (shaded cells)  
- 100% cooperation is possible because of indefinite repetition

### Tokens Conditions:

- Possibility of monetary exchange (all cells)  
- Intrinsically worthless tokens  
- Agents can hold and transfer tokens  
- Here money is not necessary to achieve efficient exchange  
- We look at behavioral reasons to use money

### Results

1. Without tokens, cooperation declined in larger groups
2. With tokens, cooperation remained stable in small and large groups
3. When monetary trade is impossible, producers no longer make gifts

### Conclusions

- Thus, lack of trust among strangers made money behaviourally essential
- When behaviour in society is heterogeneous, without tokens cooperation collapses
- In contrast, the use of tokens makes cooperation evolutionarily stable

**Information:** In all conditions: random switching of consumer/producer role  
- Repeated opportunities to help an anonymous counterpart who changed over time (with N>2)  
- No scope for direct or indirect reciprocation (hidden identities with N>2)  
- Monitoring: the number of defections in the group is made public after each round