



# Do cooperators cooperate?

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# Social Motivation of coop workers

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A laboratory experiment involving **84 workers** from a cooperative of production and work (*Formula Servizi*); 7 sessions with 12 subjects each.

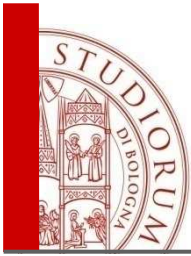
From May 2009 to April 2010 at LES – Forlì.

## Funding:

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CFICEI - Centro di formazione e iniziativa sulla cooperazione e l'etica d'impresa

AICCON - Associazione Italiana per la Promozione della Cultura della Cooperazione e del Non-profit



## Motivation and aim

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- Are coop workers different from other types of workers? Are they more “cooperative”?
- Right benchmark = workers in the same sector, belonging to non cooperative firms.
- Preliminary results: comparison with a group of **72 students** from the Forlì Campus.



## Lab exp: students and non-students

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- Experiments with students are effective and cheap/easy to set up.
- They allow for replication and international comparability.
- However, how much do the results extend to other social groups is questionable
- Coop organizations are supposed to be culturally different and might have a peculiar work climate.



# Main sources for the classification methods

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Brosig (2002), “Identifying cooperative behavior: some experimental results in a prisoner’s dilemma game”  
*JEBO*.

Burlando-Guala (2005), “Heterogeneous agents in public good experiments”, *Exp. Economics*

Fischbacher – Gächter – Fehr (2001), “Are people conditionally cooperative?” *Economic Letters*

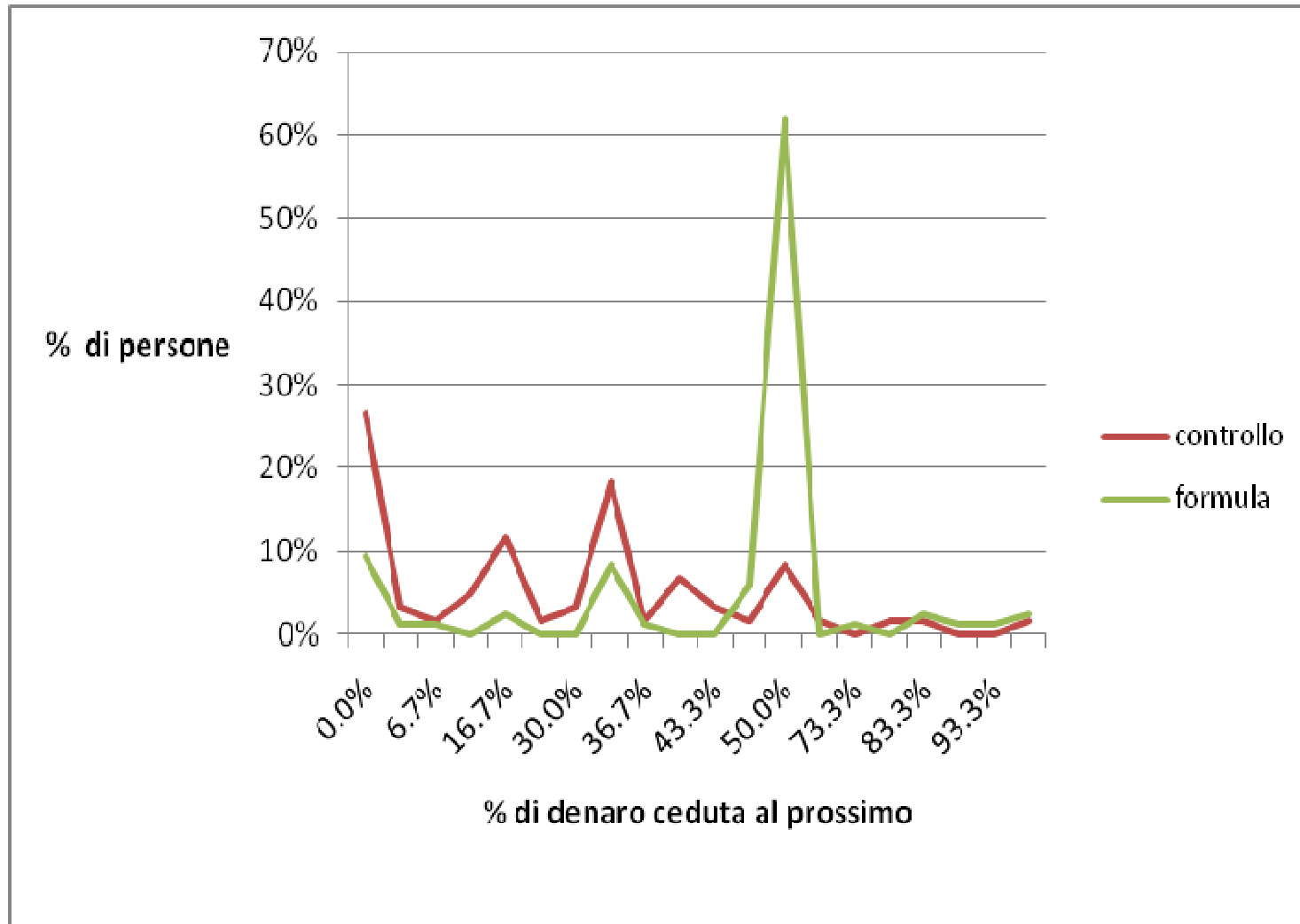


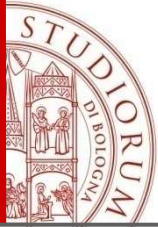
# Experimental design: 7 treatments

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- 1) Dictator game
- 2) Public Good (PG) game: Strategy Method: 20 choices
- 3) Decomposed prisoner's dilemma: 24 allocations
- 4) PG game: 12 rounds
- 5) PG game: 12 rounds with communication
- 6) PG game: 12 rounds
- 7) Stag Hunt

# Dictator Game: results



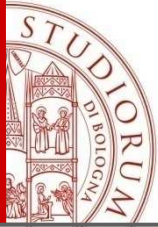


# PG: Strategy method

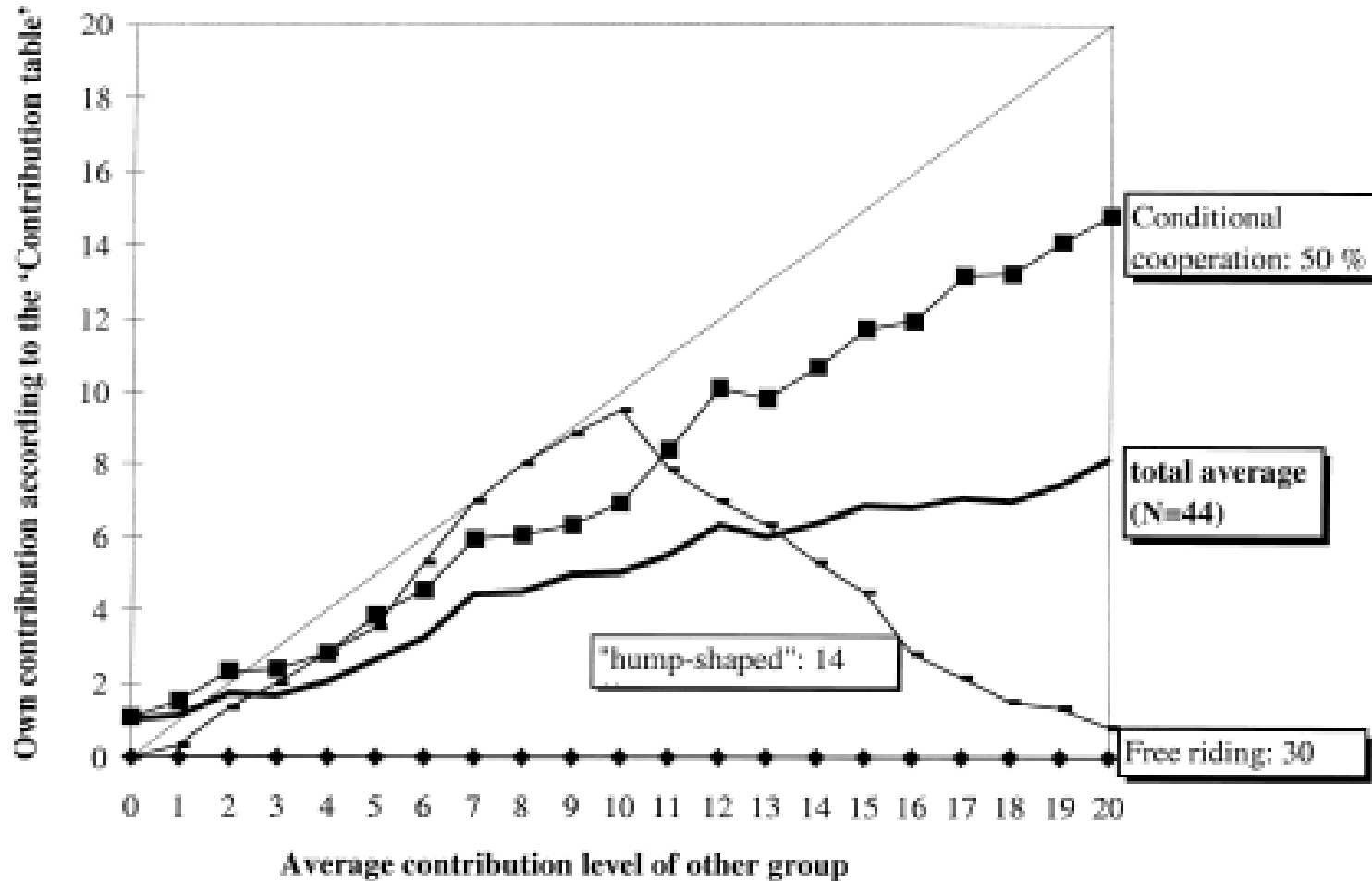
**Scelta nella tabella**  
Per ogni contribuzione media degli altri membri del gruppo indica quanto vuoi contribuire al progetto.  
Inserisci tutti gli importi e premi il bottone.

Scelta Media effettuata dagli altri	La tua scelta (scegli un numero tra 0 e 200)	Scelta Media effettuata dagli altri	La tua scelta (scegli un numero tra 0 e 200)
0	<input type="text"/>	110	<input type="text"/>
10	<input type="text"/>	120	<input type="text"/>
20	<input type="text"/>	130	<input type="text"/>
30	<input type="text"/>	140	<input type="text"/>
40	<input type="text"/>	150	<input type="text"/>
50	<input type="text"/>	160	<input type="text"/>
60	<input type="text"/>	170	<input type="text"/>
70	<input type="text"/>	180	<input type="text"/>
80	<input type="text"/>	190	<input type="text"/>
90	<input type="text"/>	200	<input type="text"/>
100	<input type="text"/>		





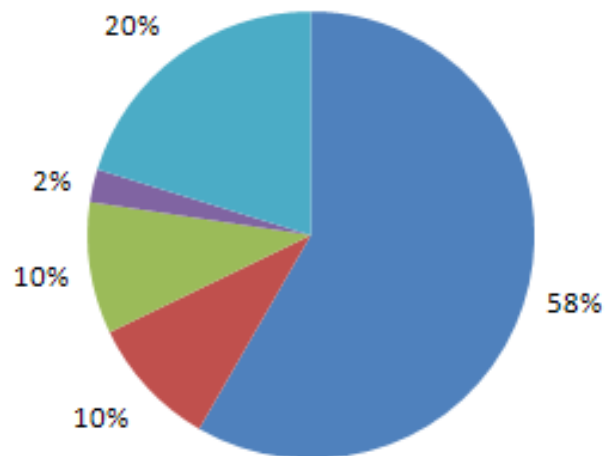
# Conditional cooperation – standard results



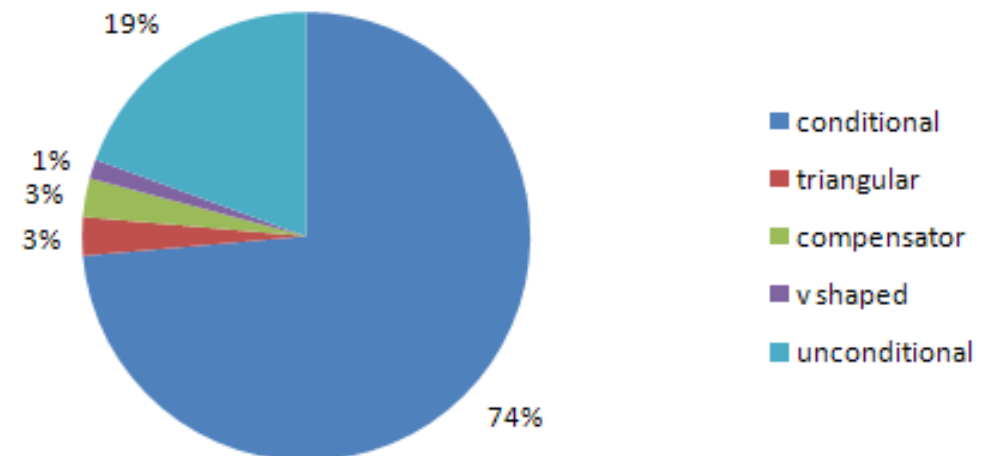


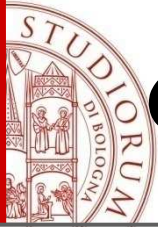
# Classification from Strategy method

**formula servizi**

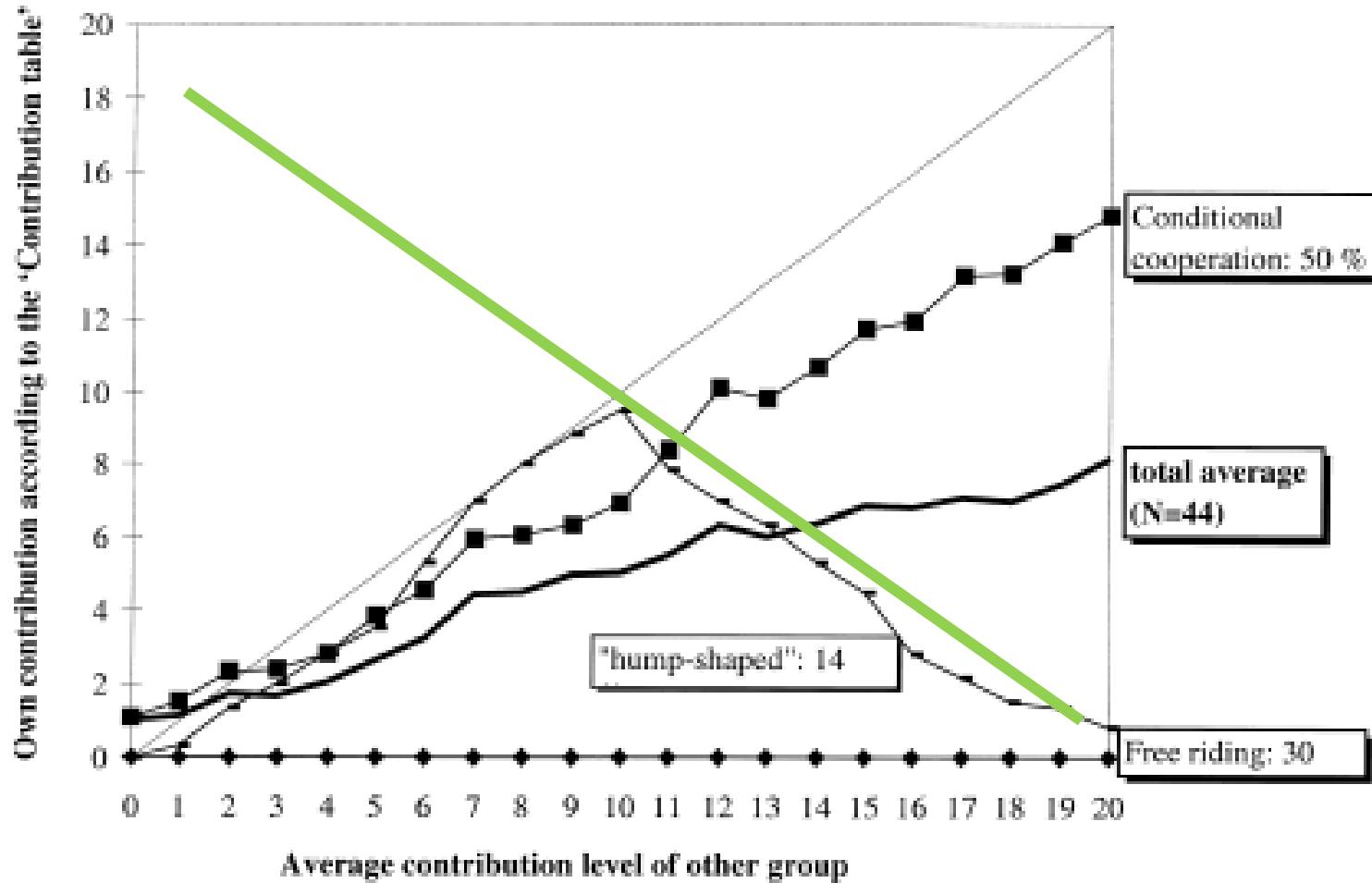


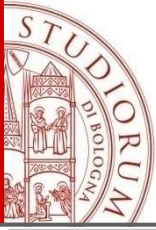
**controllo**



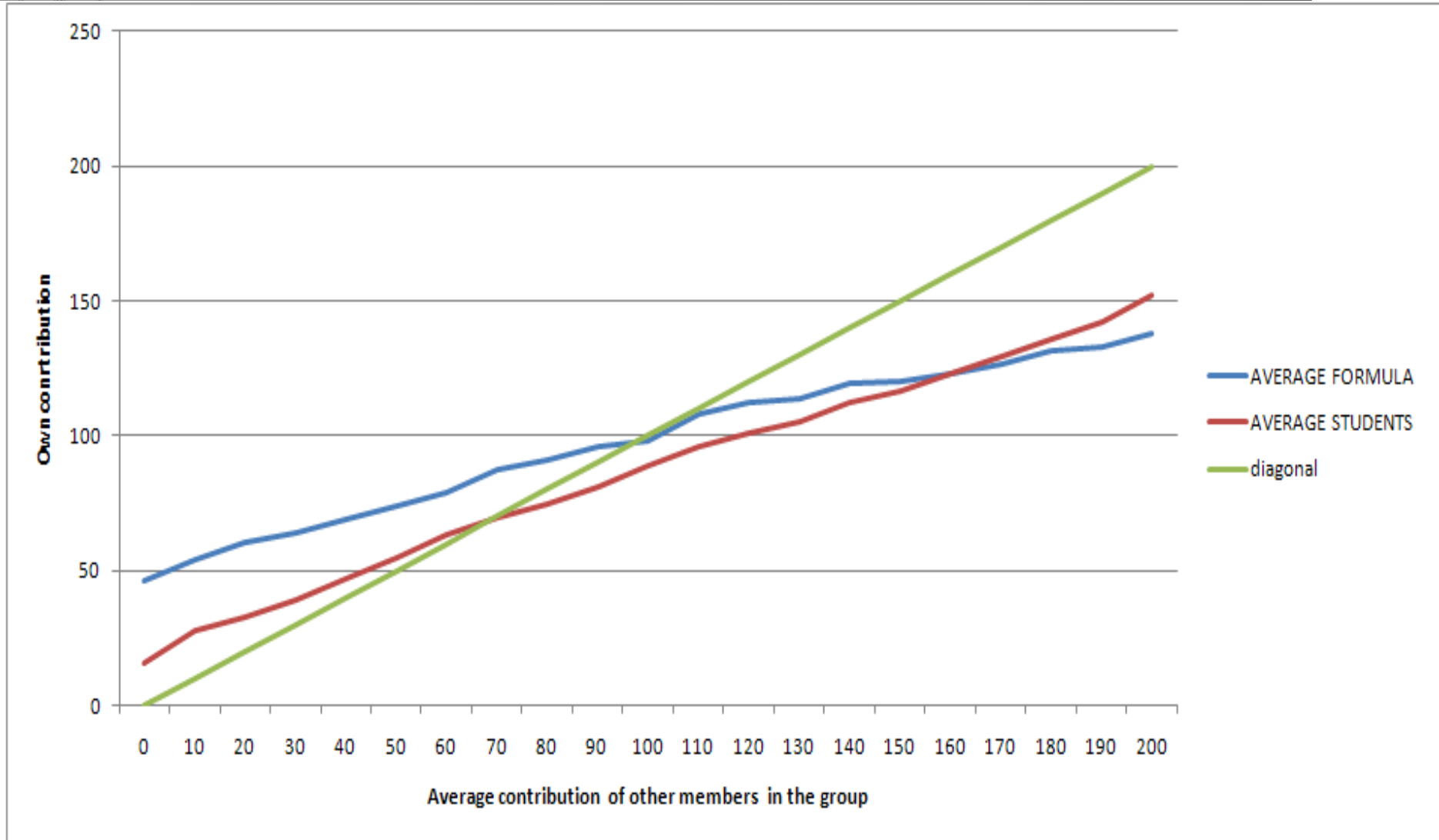


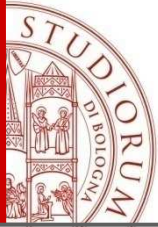
# Conditional cooperators vs. **compensators**





# Average contributions





# Decomposed Prisoner Dilemma

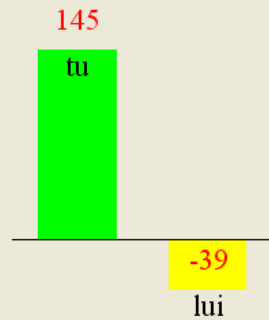
Domanda

1 su 24

Opzione A

Guadagno per te stesso: 145

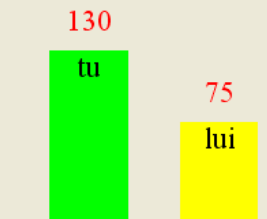
Perdita per l'altro partecipante: -39



Opzione B

Guadagno per te stesso: 130

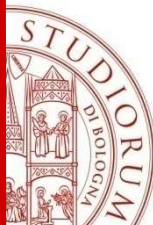
Guadagno per l'altro partecipante: 75



Scelgo l'opzione

A

B



Question	Option A		Option B	
	Self	Other	Self	Other
1	+150	0	+145	+39
2	+144	-39	+130	-75
3	+130	-75	+106	-106
4	+106	-106	+75	-130
5	+75	-130	+39	-145
6	+39	-145	0	-150
7	0	-150	-39	-145
8	-39	-145	-75	-130
9	-75	-130	-106	-106
10	-106	-106	-130	-75
11	-130	-75	-145	-39
12	-145	-39	-150	0
13	-150	0	-145	+39
14	-145	+39	-130	+75
15	-130	+75	-106	+106
16	-106	+106	-75	+130
17	-75	+130	-39	+145
18	-39	+145	0	+150
19	0	+150	+39	+145
20	+39	+145	+75	+130
21	+75	+130	+106	+106
22	+106	+106	+130	+75
23	+130	+75	+145	+39
24	+145	+39	+150	0



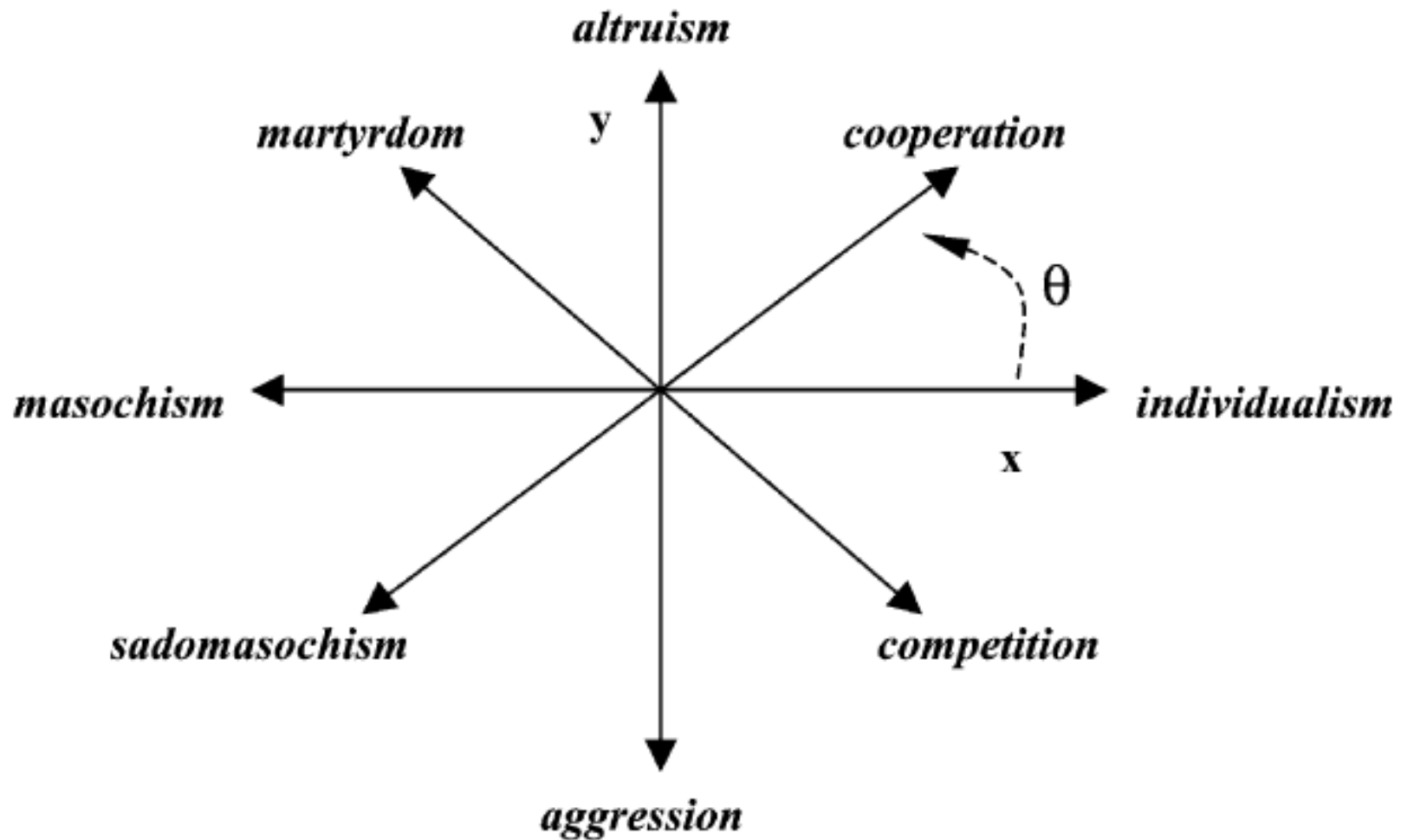
# The motivational vector

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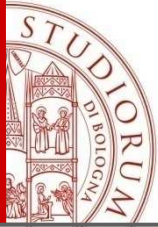
- The total sum (own plus other) allocated is not constant over the 24 combinations.
- There is no feedback concerning the other's choices. The final payoff is obtained by combining the 24 choices of each subject with those of the other player.
- Taking the 24 vectors chosen by each subject and adding them up, it is possible to obtain the motivational vector of each subject.



# The Value Orientation Circle

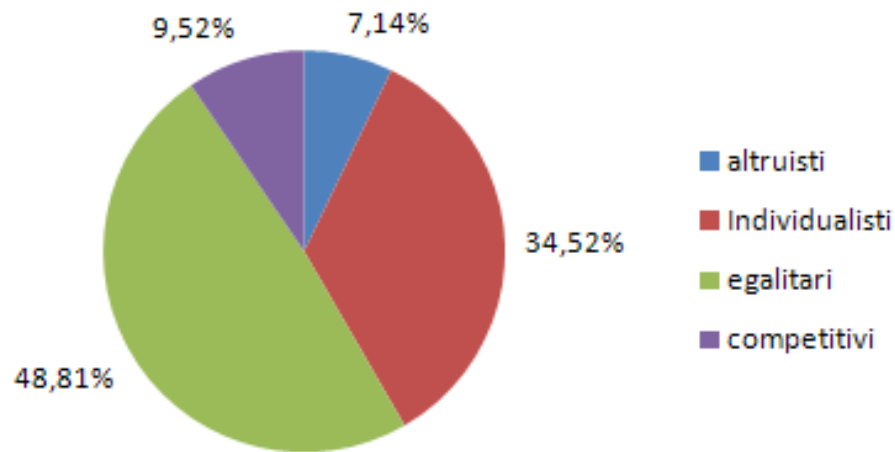




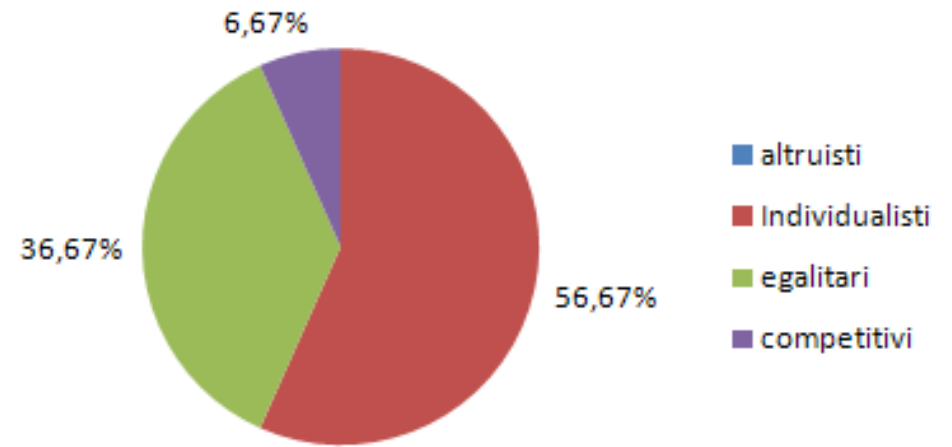


# Coop workers vs. benchmark

## formula servizi



## controllo





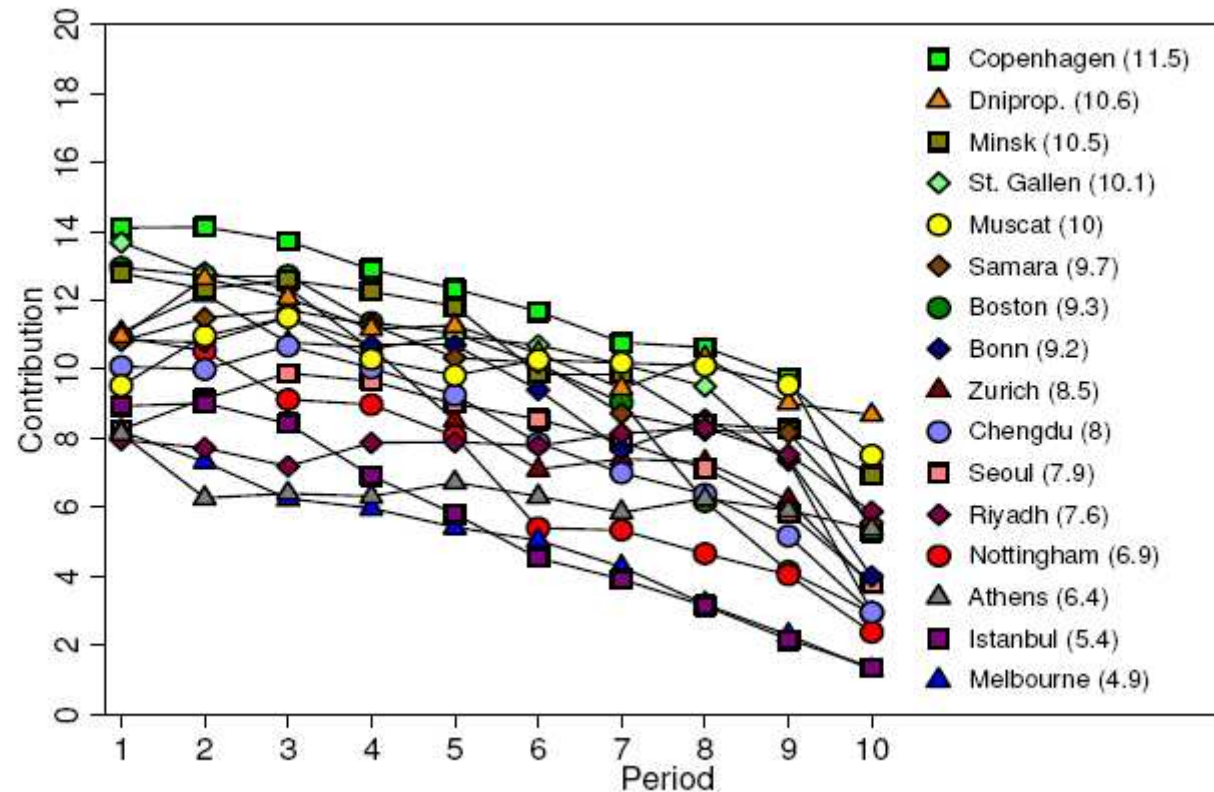
# Public good game: design

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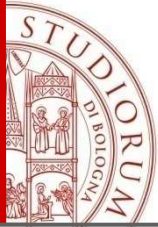
- Groups of 4 – Anonymous – Partners
- 3 sessions - 12 rounds for each session
- Linear PG Game: contributions are doubled and then equally shared among 4
- Belief elicitation before each round (prediction of average contribution, with paid incentive for accuracy).



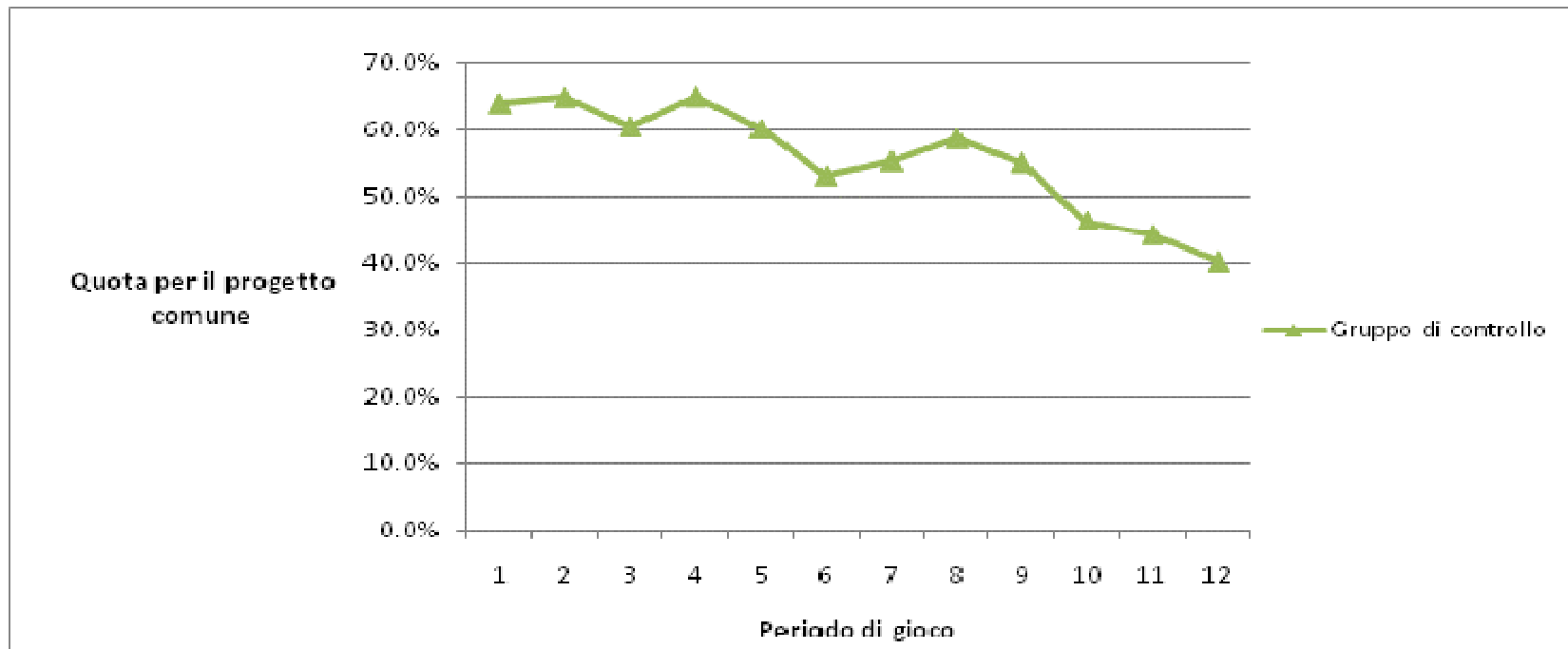
# Public good game: standard results

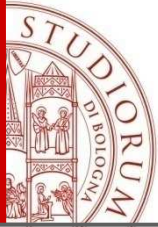


**Herrmann-Thoni-Gächter (2008): 16 countries analysis**

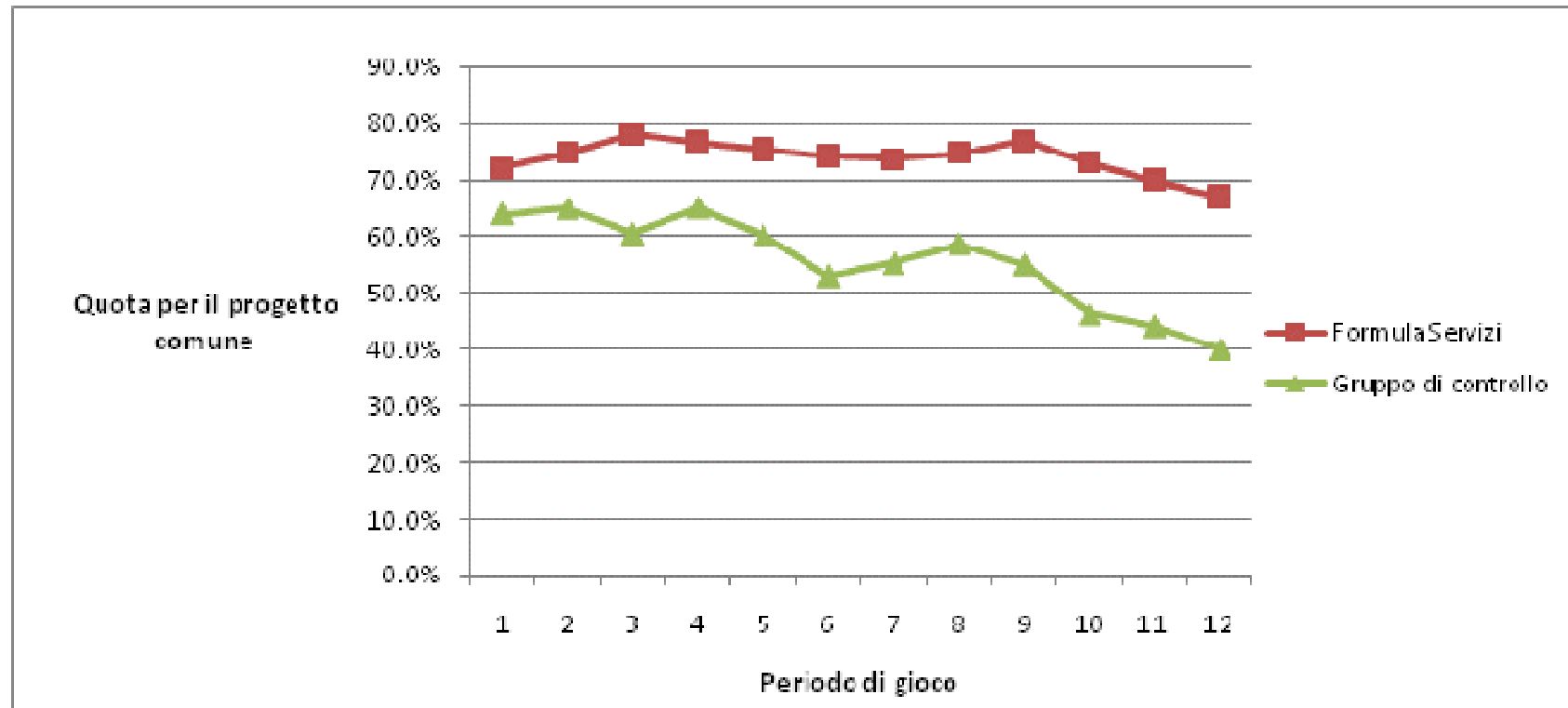


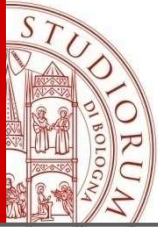
# Public good game: benchmark



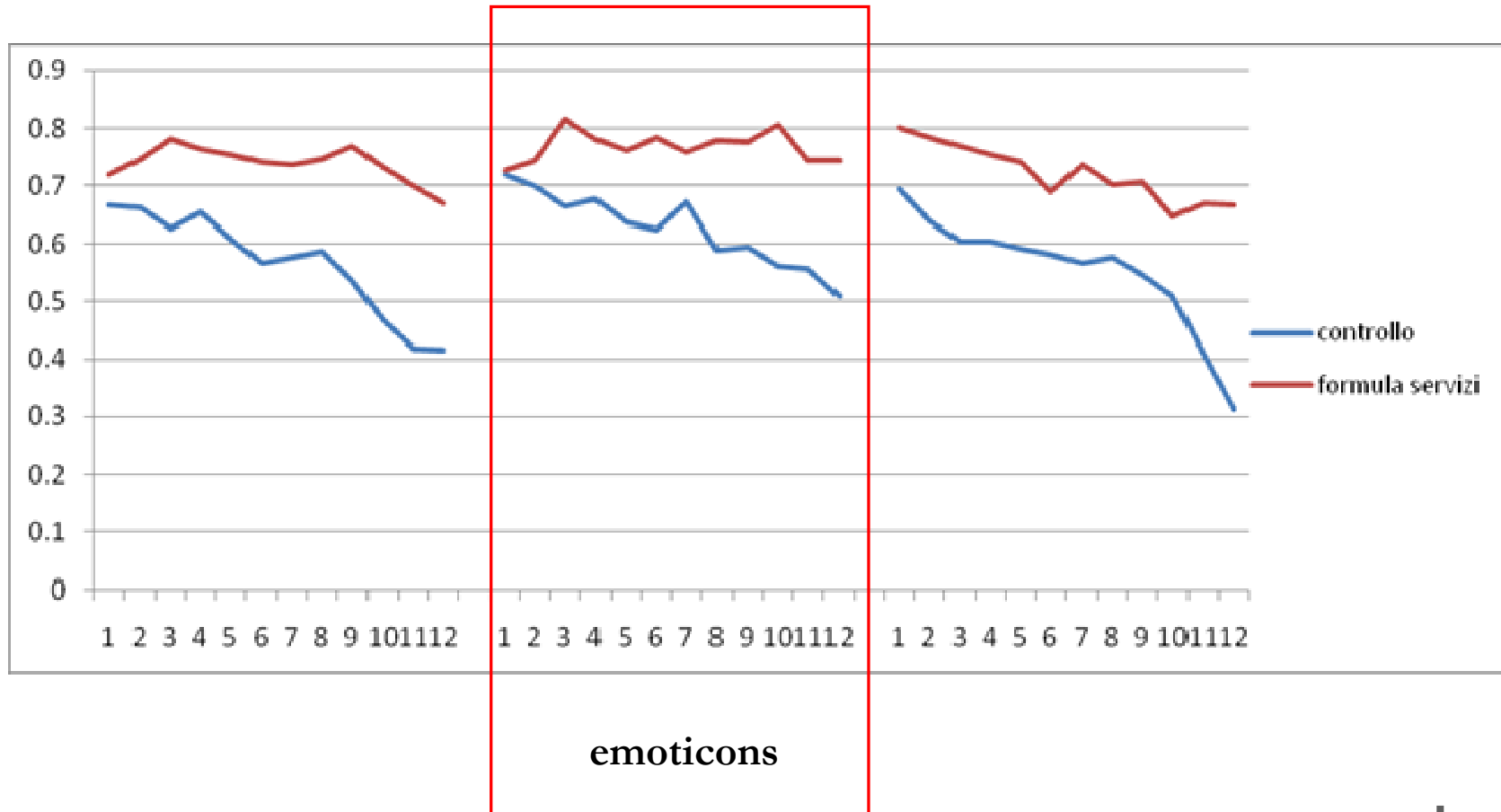


# Public good game: comparison





# Approval and Disapproval





## PG Game: remarks

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While the benchmark behaves “as usual”, some peculiar facts are observed among coop workers:

- They contribute much more on average (74% vs. 56%).
- They take advantage of a costless and simple communication technique to enhance group performance (no contribution decrease).
- Strategy Method: non-negligible percentage of compensators: example of *“we thinking”*



## To do

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- OUT: Comparison with a benchmark of non coop workers; other coop samples.
- IN: Analysis of the influence of:
  - role at work (white / blue collar)
  - age and seniority (time spent in the coop)
  - gender, education, etc....