

L'impact des la qualite´ des relations dans un groupe sur son management d'une ressource commune

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Si on ouvrait les gens, on trouverait des paysages.

Agnès Varda

A little bit of history

2014

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Goal: to understand the role and function of uncertainty in collective decision making processes in common pool resources management

Novelty: explicitly considering relationships, and their quality, as a constitutive element of collective decision-making processes.

Relationships

- Relationships are what tie people together in a social group.
- They refer to the links through which people and the surrounded world connect to each other and organize their actions (Scharmer and Kaufer 2013).
- It is through the working of relationships, played out through the formal and informal institutional arrangements in place, that actors define what is at stake, what must be done and what must be known.

Relationships and communication

- Relationships are not fixed, they **develop through interactions** among actors.
- **Relationships are not the same as communication:** communication is the venue through which people share or exchange information, cues, feelings, from which relationships are formed.
- So, relationships are an emergent characteristic of social interactions, and communication is a process that constitutes these relationships.

Quality of relationships

How players perceive the behavior of others?

Trustworthy
Fair
Selfish
Cooperative
Competitive
Understanding
Caring
Envious
Altruistic
Empathetic

How players perceive themselves behaving towards others?

Trustworthy
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We developed a pilot experiment to test:

Conjecture 1

The organization of social interactions and the introduction of communication affect subjects' relational quality.

Conjecture 2

Better relational quality within a group reduces the relevance that subjects attribute to uncertainty in a situation of strategic interactions.

Conjecture 3

Better relational quality within a group improves the management of the common pool resources.

Our findings confirmed that:

- The quality of relationships matters
- Changes in the quality of the relations were accompanied with changes in how uncertainties were perceived
- Social interactions induced a change in the quality of relationships developed among subjects in a group, so the more possibilities of interaction the better the relational quality that unfolds.
- A proposition that beyond being general, is restricted by how social interactions are organized. Our results show that less controlled interactions induce better relational quality.
- The communication exchange builds on previously formed relationships, and is shaped by past interactions

Relational quality and uncertainty in common pool water management: an exploratory lab experiment. M. Brugnach, S. de Waard, D. Dubois and S. Farolfi. *Scientific Reports* volume 11, Article number: 15188 (2021)

<https://www.nature.com/articles/s41598-021-94517-6>

What are we doing now?

- A simpler experimental set-up focusing on relational quality on a symmetric CPR

Experimental literature on the effect of relational quality and communication on CPR management

- Relational quality in a group:
 - Social approval and social familiarity to avoid free-riding in a PG (Gächter and Fehr, 1999).
 - Team building tasks and PG games (Charness, 2012), Group/individual decision-making (Charness and Sutter, 2012).
 - Group identity (painting preferences) and welfare maximization decisions in a group (Chen and Li, 2009).
- Communication:
 - Improvement of CPR management through communication (Ostrom, E., Walker, J., 1991; Ostrom 2000)
 - Roles of communication in a CPR (Cardenas and Ostrom, 2004): Problem clarification, type detection, moralization, reinforce group identity.
 - Communication, elicitation of social norms and group identity in social dilemmas experiments (Bicchieri, 2002).
- We contribute to this literature by looking at: 1) if and how better relational quality perceived in a group improves CPR management, and 2) if and how communication influences relational quality of the group.

Research Question

Does better relational quality in a group improve CPR management?

Specific research questions are:

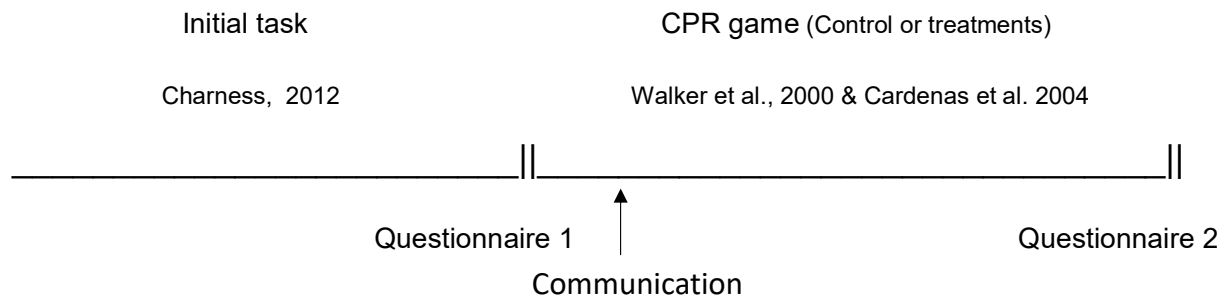
- 1) Can common tasks and communication have an effect on relational quality in a group?
- 2) What is the respective role of these factors on the improvement/worsening of relational quality in a group?
- 3) Is there additive effect between these factors?

Hypotheses to be tested

- **H1:** The rule of payment (individual, cooperation or competition) in the effort task creates different relational qualities between the group members. This can be in the positive sense or in the negative one.
- **H2:** Better relational quality improves (respectively, worst relational quality worsens) cooperation in CPR dilemmas.
- **H3:** Communication (before a CPR game) improves group identity and solidarity (e.g., caring, feeling included, etc. questionnaire), which is a crucial component of relational quality.
- **H4:** Communication has an additive effect to a cooperative real effort task on improving relational quality in a group and therefore the management of CPR.

Treatments

- T0 (Baseline) = individual initial task, no communication
- T1 = cooperative initial task, no communication
- T2 = competitive initial task, no communication
- T3 = individual initial task, communication
- T4 = cooperative initial task, communication
- T5 = competitive initial task, communication



Initial Task

Questionnaire on relational quality

Characterization of relationships

How players perceive the behavior of others?

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Altruistic
Empathetic

How players perceive themselves behaving towards others?

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In general, did the other players behave as you expected? Please indicate in a scale from 0 to 5 (0 nothing, 5 max)

Did you feel you had influence over the behavior of others? Please indicate in a scale from 0 to 5 (0 nothing, 5 max)

Did you feel reciprocated by the others? Please indicate in a scale from 0 to 5 (0 nothing, 5 max)

In general, how would you rate the communication with other players?

Easy

Clear

Useful

What are the emotions expressed and felt: Elicit emotions that are engaging and disengaging among group members. Framework developed by Leersnyder, Mesquita, Boiger (e.g., Boiger and Mesquita (2012): *The construction of emotions in interactions, relationships and cultures*).

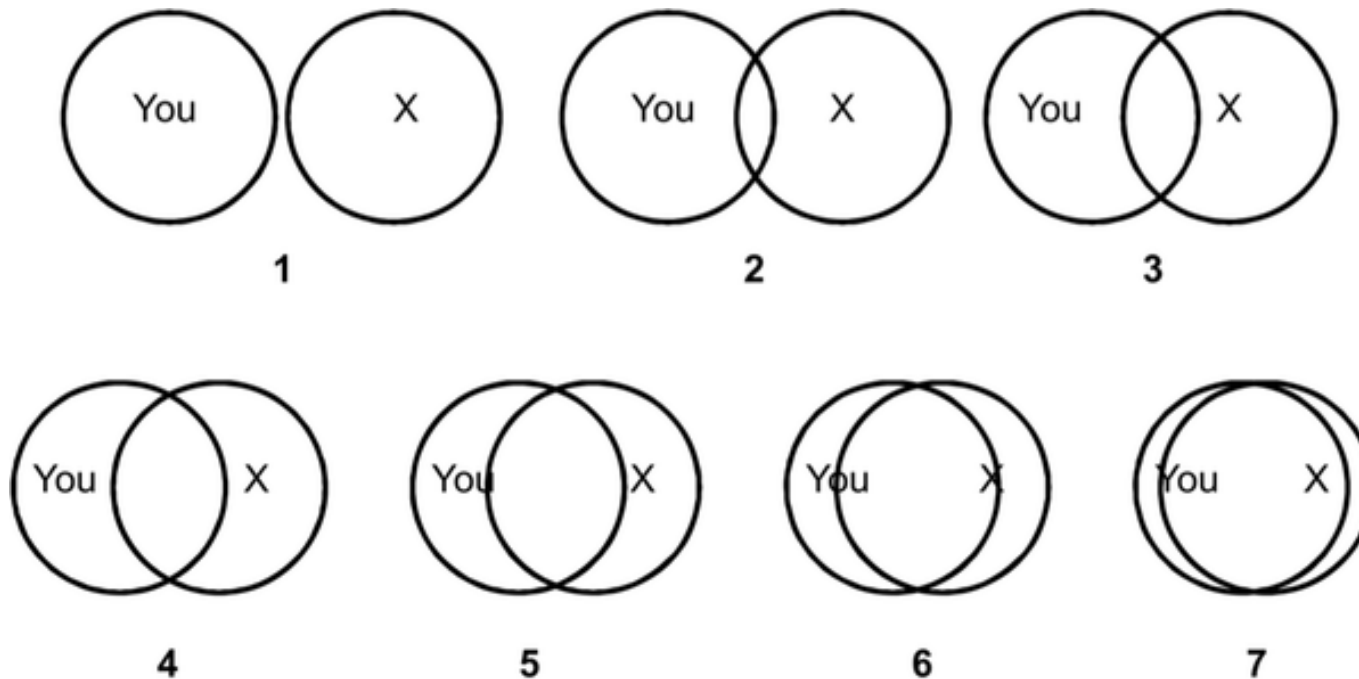
How are you feeling?

Please write down one to three emotions you are feeling right now.

Please indicate in a scale from 0 to 5 (0 nothing, 5 max) the degree to which you feel:

(Positive engaging emotions)	(Positive dis-engaging emotions)	(Negative engaging emotions)	(Negative dis-engaging emotions)
Friendly	Proud	Guilty	Disappointed
Respectful	Superior	Indebted	Frustrated
Sympathy	Self-esteem	Afraid	Angry
<i>Close feelings</i>	Top of the world	Ashamed	Sad

3. Closeness of relationships. How close are our relationships? We use IOS: *Inclusive of Other in Ourselves Scale* to measure subjectively perceived closeness of relationships.



The 'Inclusion of the Other in the Self' (IOS) task.

Gächter S, Starmer C, Tufano F (2015) Measuring the Closeness of Relationships: A Comprehensive Evaluation of the 'Inclusion of the Other in the Self' Scale. PLOS ONE 10(6): e0129478. <https://doi.org/10.1371/journal.pone.0129478>
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0129478>