

«Informazione e consumi energetici»

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Comportamenti pro-ambientali

- **Contributivo** (denaro, es. per politica o progetto ambientale, tempo, es. per volontariato)
- **Acquisto** (acquisti «green», es. energia verde; elettrodomestici classe energetica superiore, etc.)
- **Modalità consumo/abitudini** (risparmio energetico, etc.)
- **Sostegno** (politico come petizione, referendum etc.; gruppi organizzati come gruppi di acquisto solidale, etc.)

Leve psicologiche

- **Comunicazione informazione centrale** (costi e benefici es. relativi alla riduzione acidificazione laghi; status quo, es. livello attuale consumo energetico, costo opportunità, punti di riferimento, etc.)
- **Menu di scelta** (presentazione alternative di scelta, opzione di default, etc.)
- **Progettazione del contesto di scelta** (fisico o virtuale) **e l'informazione periferica** (es. effetti atmosfera, background pagina web, cue visivi, cue uditivi, cue olfattivi, etc.)

I) La comunicazione del *feedback* ed il risparmio energetico

- **Feedback** individuale – continuo o discreto (lettori – energia or denaro; ambient energy orb, home display, bolletta consumi, etc.)
- **Feedback** emozionale / normativo (emoticons, giudizi etici/valore o norme ingiuntive, etc.)
- **Feedback** comparativo (e.g. norme descrittive, persona/gruppo con cui ci si confronta, etc.)

Feedback emozionale-normativo

New format of the electricity bills introduced by the Sacramento Municipal Utility District (The New York Times, 31 January 2009).



Starting from April 2008, the bills sent to 35,000 randomly selected customers presented smiling or frowning faces, according to the electricity consumption level. Each consumer was compared to a sample of neighbors living in 100 homes of similar size and with the same heating fuel.

Feedback socio - emozionale

Results of the Sacramento «experimental electricity bills»

After 6 months, Alexandra Crawford, spokeswoman for the utility company, said that the results of the “experimental bills” were very encouraging. In particular, the new bills format was more effective than the traditional economic incentives (e.g., the offer of vouchers that allow to buy low consumption electric appliances on sale).

Social Feedback: what they do, who they are

Graffeo, Ritov, Bonini & Hadjichristidis, submitted

METHOD

277 participants living in Jerusalem (main study)

They were randomly allocated across 4 experimental conditions

Social Feedback: what they do, who they are

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Disegno sperimentale 2 x 2:

Livello di identificazione delle persone che compongono il gruppo sociale di riferimento (**gruppo identificato vs. non identificato**).

Vicinanza/somiglianza tra la comunità dei partecipanti allo studio ed il gruppo sociale di riferimento (**in-group**, stesso quartiere in Gerusalemme Vs. **out-group**, altro quartiere in Haifa).

Questionario In-group & Un-identified

Tra parentesi la condizione «Identified»

Immagina che sia arrivata la bolletta dell'energia elettrica.

Vi trovi un confronto tra i tuoi ultimi consumi e il consumo medio di un appartamento tipico del tuo quartiere (*cioè un appartamento dove vivono tre studenti universitari*).

(un esempio l'appartamento dove vivono tre studenti, Mary, 23 anni, John, 25 anni, e Elizabeth, 24 anni; questa è una loro foto).



Questionario In-group & Un-identified

Tra parentesi la condizione «out-group»

Your energy consumption exceeded the typical apartment consumption in your neighborhood by 10%.

(of a neighborhood in Haifa by 10%)

In the light of this statement **what do you plan to do?**

Please tick the option that applies below. If you select 1 or 3, please specify also the appropriate level

Questionario - WTS

I plan **to increase** my energy consumption by appr. ___%

I **do not plan** to either increase or decrease my energy consumption

I plan **to decrease** my energy consumption by appr. ___%

Social feedback: An experimental study

Graffeo, Ritov, Bonini & Hadjichristidis, submitted

Dependent variables

i) **W-T-Save:** I intend to increase, keep the same level or decrease energy consumption

ii) **How much** in terms of percentage value (if they want to change it)

Also, a measure on **How to achieve the goal** of energy consumption reduction was used (selection and ranking of the top three₃ actions)

RESULTS: W-T-Save energy

No one selected the option «I plan to increase my energy consumption»

So data were binary coded as «**decrease** vs. keep the **same level** of consumption»

Social Feedback: what they do, who they are

Graffeo, Ritov, Bonini & Hadjichristidis, submitted

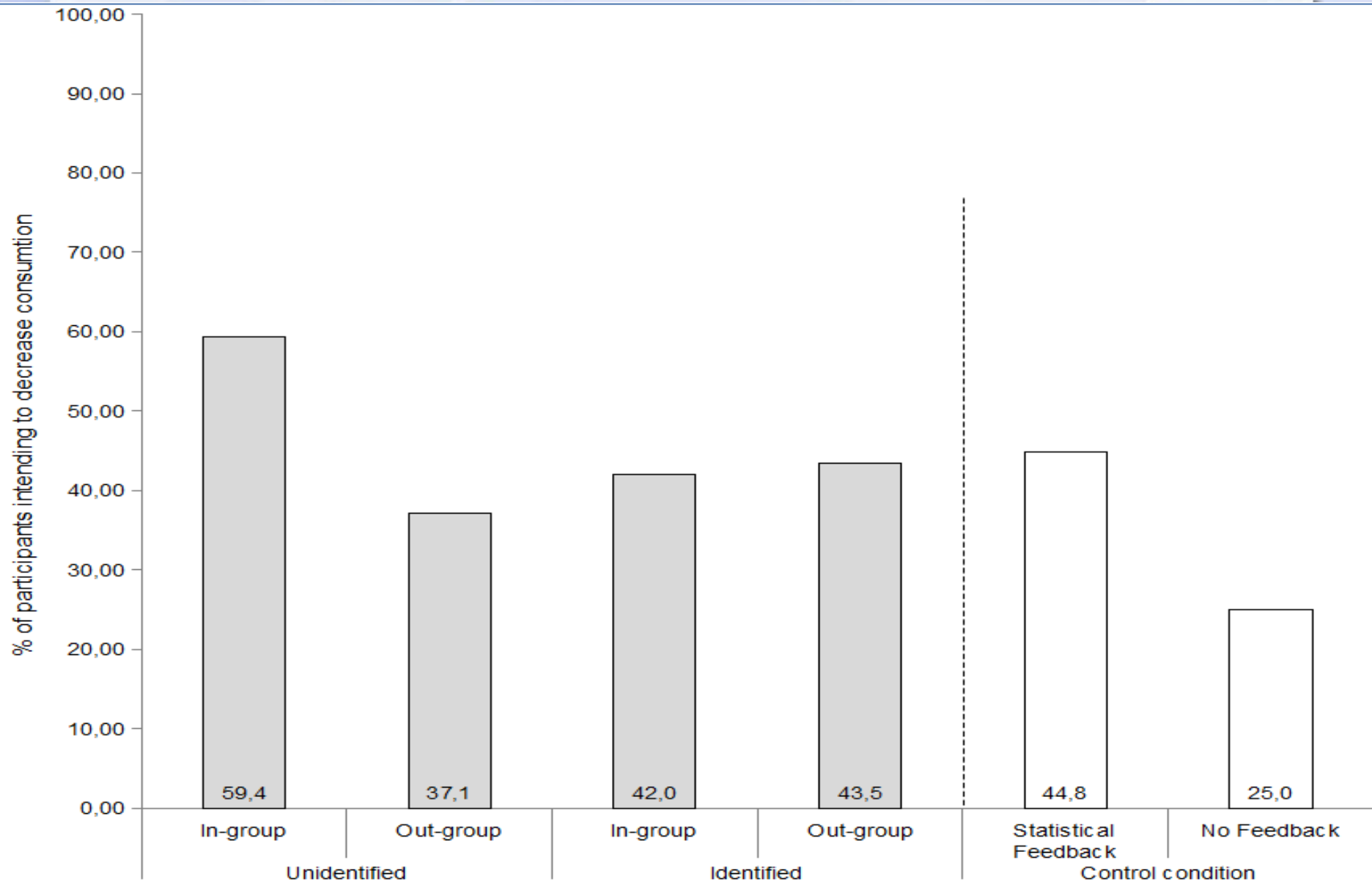
METHOD

**plus 57 more participants for the follow up study
(two control conditions)**

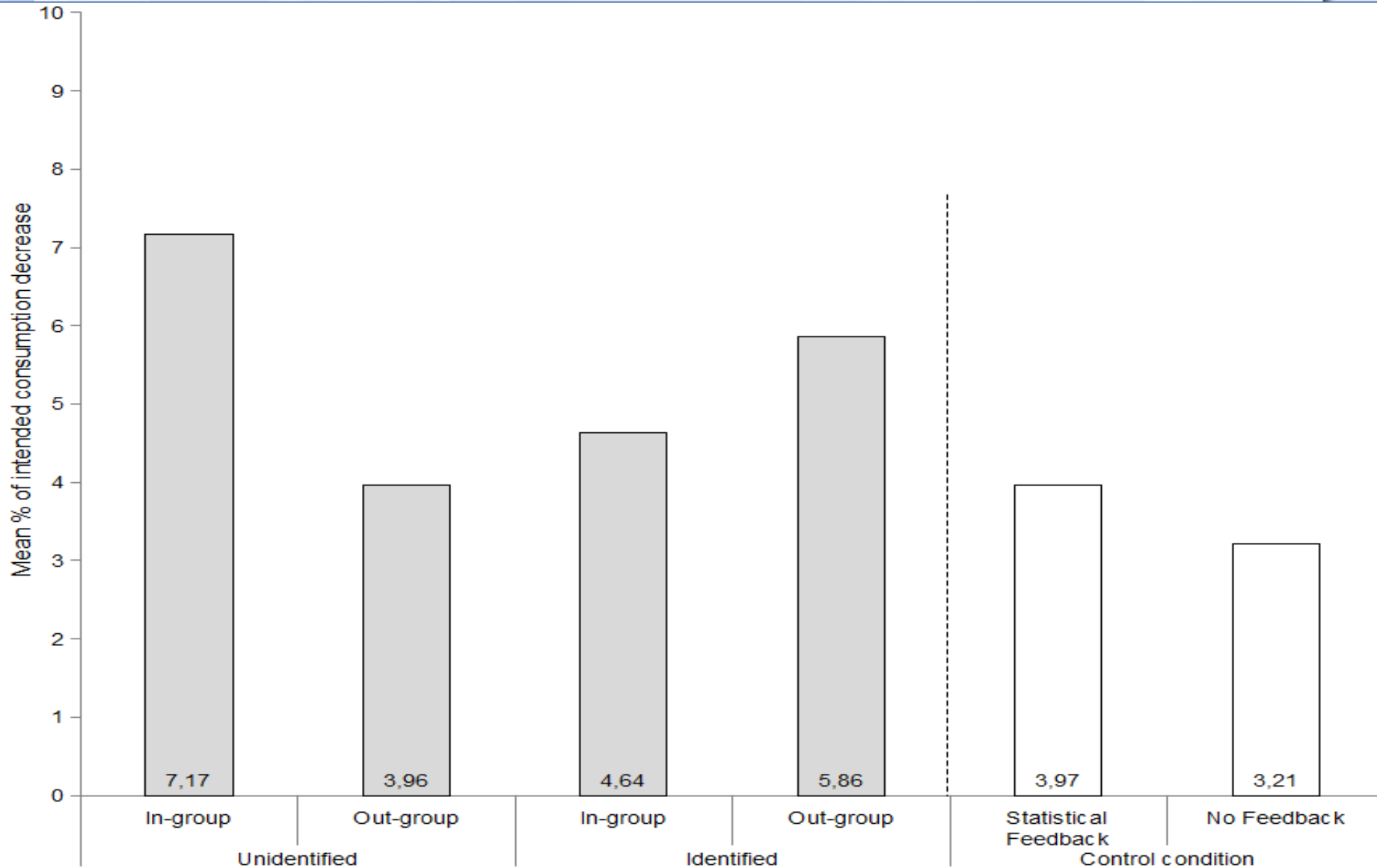
Statistical feedback: «Your energy consumption exceeded the average household consumption level by 10%»

No feedback: no information was provided about energy consumption level

Intention to decrease energy consumption - % of participants



Intended amount of energy reduction - mean %



Social Feedback matters

1) Providing feedback (either social or statistical) versus not providing feedback **increased** both the percentage of **decisions** to decrease energy consumption, as well as **the amount** of planned energy saving.

2) From all types of feedback, the one concerning the **In-group—Unidentified household** promoted **the highest intended energy consumption savings**.

Informazione e consumi elettrici - cont.

Quantità e tipologia di consumo elettrico (es. scelta energia «verde»)

Dalla **consapevolezza/emozionalità/salienza** del problema alla valutazione dell'**opportunità**....

II) Leva psicologica- menu di scelta

La presentazione del compito di scelta & **l'opzione**
di default...

Il fenomeno dello **status quo bias.....**

I) Default option & “Green” choice

Pro-environment behaviour

choice of green Vs. grey energy (Pichert & Katsikopoulos, 2008)

pricing or electricity type option (Brennan, 2006)

choice of incandescent vs. fluorescent light bulbs (Dinner et al., 2011)

adoption of the “Smart Grid Technology” for their own homes (Oelander & Thoegersen, 2014)

printing mode [default setting] – The Rutgers field experiment

Green consumer choice - Pichert and Katsikopoulos, 2008

This technique (the default option) was also used to raise the attractiveness of environmental public policies, for example, the attempt to increase the number of consumers choosing “green” electric tariffs (so called “green defaults”).

**Appendix A. Instructions in first laboratory experiment
(translated from German)**

Grey condition: "Imagine you have to relocate to another town. After you move into your new flat, you receive a letter from the electric power supplier, *Acon*. You are told that by moving into your new flat you became an *Acon* customer. '*Acon* is pleased to welcome you as a new customer. We are responsible for the basic electricity supply in this residential area. *We offer low-priced electricity tariffs—you cannot beat our prices. Save money with Acon!* Your monthly premium is €25'. You are kindly asked to fill in some personal data on an attached document, which you do. A couple of days later a contract is sent to you.

Some weeks later you find a flyer in you mailbox, advertising offers from the electric power supplier *EcoEnergy*: '*Switch to EcoEnergy! Did you know that you can easily switch your electricity supplier? EcoEnergy sells clean electricity, generated from renewable energy sources. Contribute to climate protection and environmental protection! Your monthly premium will be €30*'".

What do you do? (please check box)

- Stay with *Acon*
- Switch to *Ecoenergy*

Table 1

Options in the first laboratory experiment

Company name	Information given	Monthly costs
EcoEnergy	EcoEnergy sells clean electricity, generated from renewable energy sources. Contribute to climate protection and environmental protection!	€30 (ca. \$39)
Acon	We offer low-priced electricity tariffs—you cannot beat our prices. Save money with Acon!	€25 (ca. \$32)

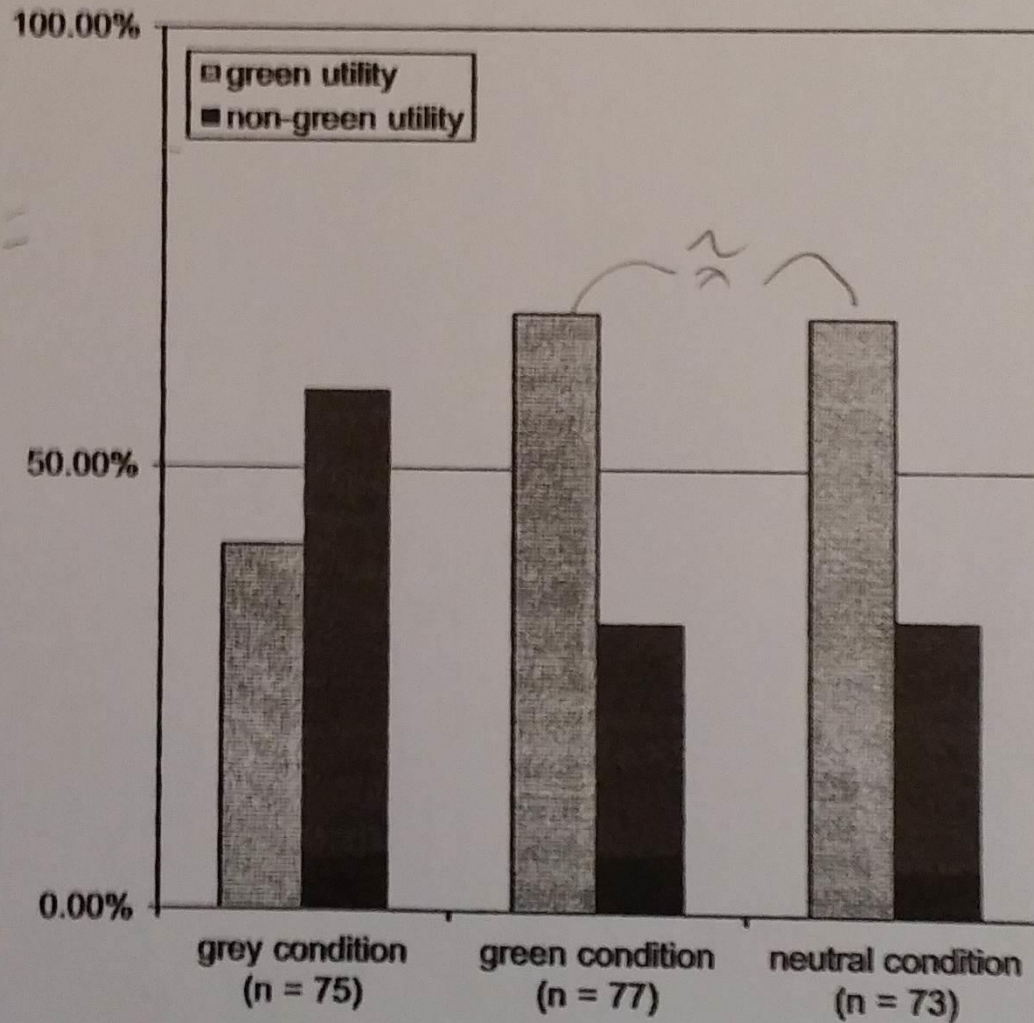


Fig. 1. Choices of carrier across the three conditions.

Un esempio: opzioni di stampa

Opzioni di stampa presso la Rutgers University nel New Jersey.

Opzione predefinita da "stampa su una sola pagina" a "**stampa fronte e retro**".

Effetto: riduzione di consumo carta equivalente al peso di centinaia di alberi.

<http://www.nbcs.rutgers.edu/ccf/main/print/transition.php>

GENERAL CONCLUSIONS_1

- Preferences are **not** adequately described/predicted by standard economic analysis (e.g., inconsistent and incoherent preferences; not-self interested preferences) \Leftrightarrow **Decision Anomaly**
- **Constructed preference** \Rightarrow the decision is made “hic et nunc”, and affected by several factors (preference is constructed rather than revealed).

For example, stated preference is affected by **the way** information is displayed (e.g., frame effect), and by the **context** of judgment (e.g., separate vs. joint evaluation; peripheral cues, etc.).

..... Thanks