The Strategic Display of Emotions

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Motivation

▸ Emotions undoubtedly affect people's choices, and others react to this (e.g., Battigalli et al., 2017)

▸ But are emotions used strategically in social interactions?

▸ We examine if, depending on the context, people vary their own expressed emotions

▸ In our experiment, people send facial pictures of themselves in which they express different emotions

Related work

▶ Andrade and Ho (2009) show that people game emotions in UG

- Written messages (expressing anger)

▶ Gneezy & Imas (2014) show people do, and strategically make others angry when this is to their advantage

▶ Heyes and List (2016) find that people are willing to pay to reveal a photograph

- Neutral pictures
- No variation in games

Why faces?

▶ We look at the strategic display of facial emotional expressions

▶ Large body of work shows that faces and emotional expressions are of central importance for social communication

▶ Similarities with verbal communication but
- More hard-wired and instinctive
- Often not aware of own expressions
- Often harder to fake,
- Overrule verbal messages

The Game

▶ We put people in different environments, expecting that it pays off to appear happy in one environment and angry in the other

▶ The context is a task-delegation game, where one player has to delegate a task to one of two other players (cf Babcock et al., 2017)

▶ We vary whether or not it is a desirable task to get
- Game theory class
- Admin duties

The Game

- One red player paired with two green players

- Red player assigns an investment task to one of the green players

- The "designated" player can then accept or refuse to invest

- Two versions: desirable and undesirable task

Version 1: Desirable task

▸ The designated green player earns $2 if she accepts to invest and $2.20 if she refuses

▸ The other green player always earns $1

▸ The red player earns $2 if the designated player accepts and $1 otherwise

▸ Payoffs such that red player likes the designated green player to invest and the green player likes to get the task

Version 1: Desirable task

Red assigns the task to A
and A accepts to invest.
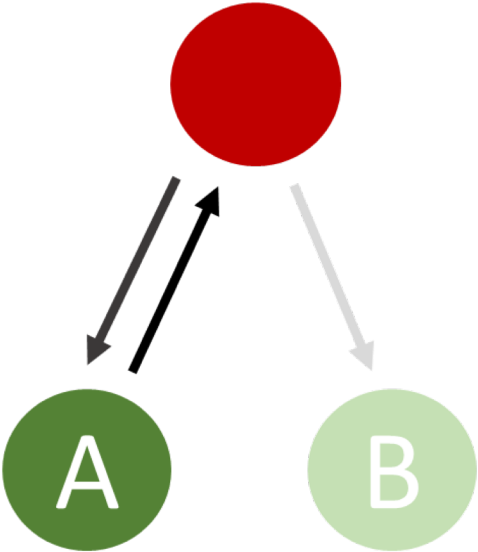
Earnings:

Red: 2.00
Green A: 2.00
Green B: 1.00

Version 2: Undesirable task

▶ In this version, if the designated green player refuses to invest, the other green player has to invest

▶ The green player that ends up investing earns $1

▶ The others earn $2 if the designated player invests, and $1.2 if the designated player refuses to invest

▶ Payoffs such that red player likes the designated green player to invest but green player does not like to get the task (with a caveat)

Version 2: Undesirable task

Red assigns the task to A
and A accepts to invest.
(A invests)

A   B
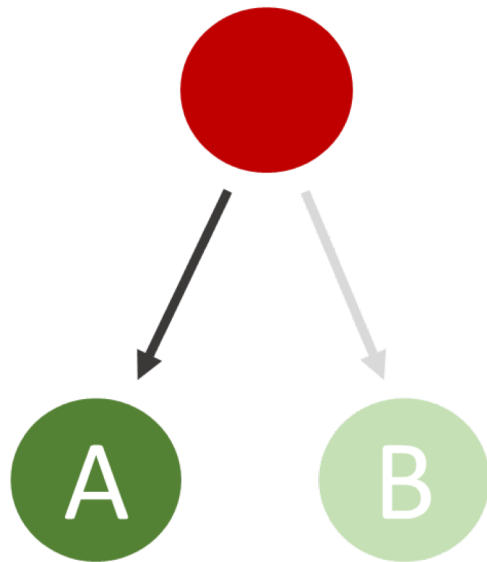
Earnings:

Red: 2.00
Green A: 1.00
Green B: 2.00

Sequence of actions

▶ Prior to instructions, each green player takes two selfies: happy and angry

▶ Red player paired with two green players

▶ One green player can choose which picture to show to the red player, for the other this is determined randomly

▶ Red player sees the two pictures and assigns the task to one of them

▶ They play 12 rounds in total (6 decisions), rematching

▶ Feedback after every round about expressions on pics, chosen player, and investment decision
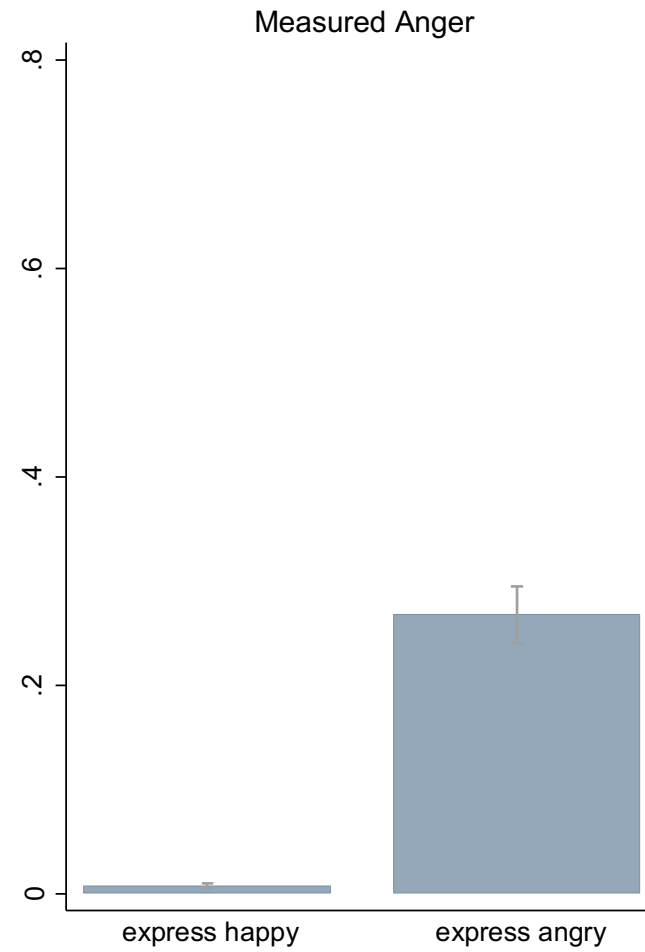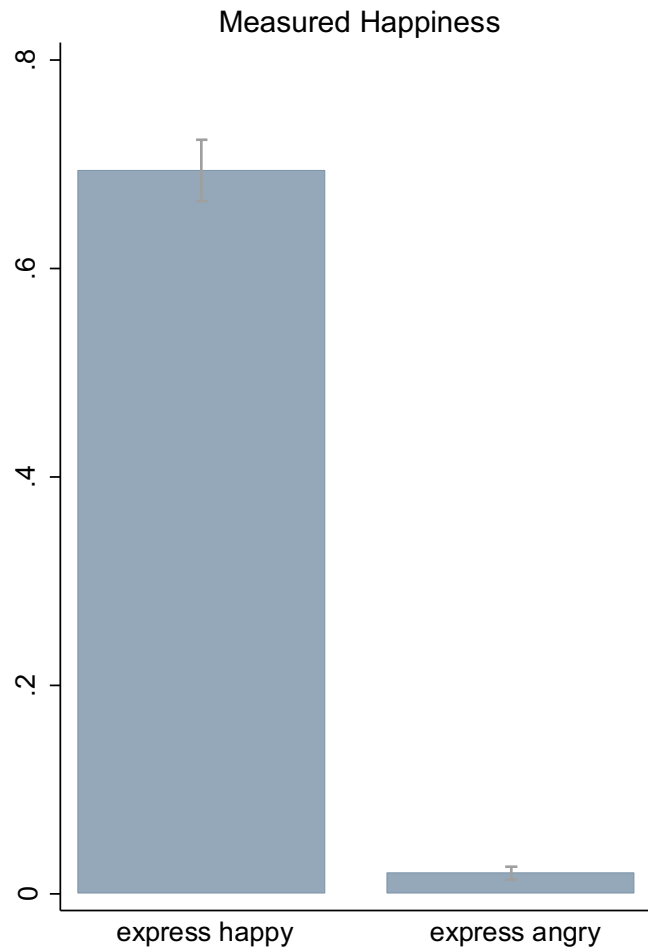
Design

- ▶ Red players in Tilburg, green players in Amsterdam

- ▶ Unknown to the red player that the green players were asked to express emotions

- ▶ Paid for all rounds

- ▶ 136 subjects in each role, gender balanced

Manipulation check

▶ We used Facereader software to verify that our manipulation worked

▶ Reads basic emotions based on 500 points on the face
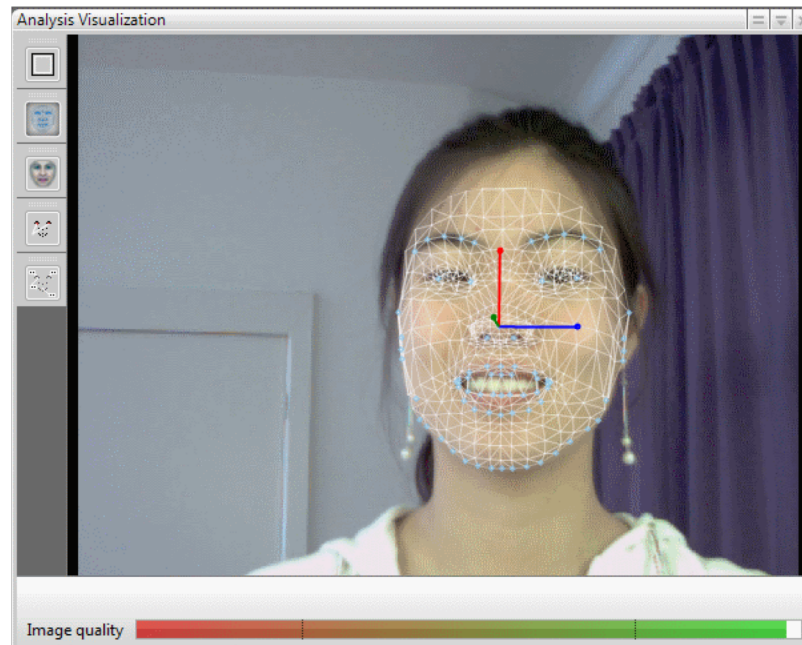
Manipulation check

Ratings

▶ An independent group of observers rated the pictures on trustworthiness (7-point scale)

▶ Angry pictures judged as less trustworthy (3.4 vs 4.7, $p < 0.001$)

Results – Happy picture selected

▸ Happy pictures more likely to be selected by the red player in either version of the game

▸ When the expressions on the two pictures differ, the happy picture is chosen 60% of the time (desirable task) and 65% of the time (undesirable task)

Results – Percentage sending angry pic

▸ Subjects are substantially more likely to send their angry picture when the task is undesirable compared to when the task is desirable
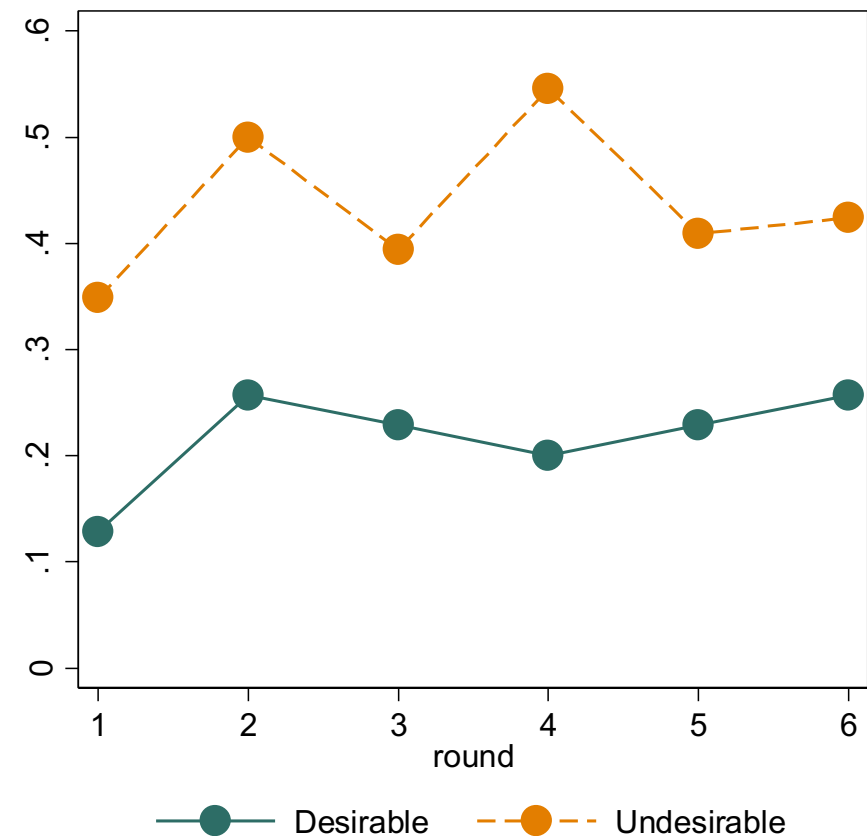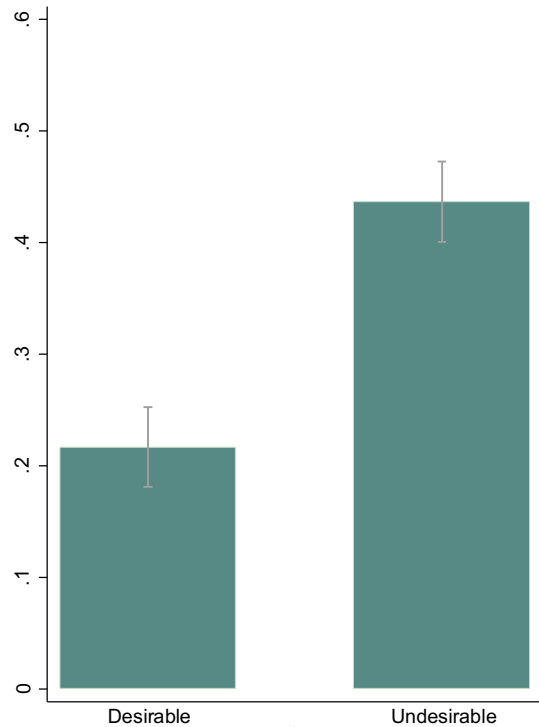
Heterogeneity

▸ Subjects that send their happy picture when the task is undesirable might still be making the right choice

▸ To test this, we can use the randomly selected picture as the counterfactual

▸ We find that, at least on average, those subjects would be better off sending their angry picture

▸ Those sending angry picture more often are also not perceived to be more or less trustworthy

Heterogeneity

▸ Treatment effect stronger if they needed fewer attempts to answer test questions correctly

Heterogeneity

▶ We administered some measures of strategic and emotional reasoning

- Strategic reasoning (backward induction)
  - Racing game (Gneezy et al., 2010)
- Emotional theory of mind
  - Reading-mind-in-the-eyes (Baron-Cohen et al)
  - Angry button

▶ We observe stronger treatment effects for subjects that score high on those tasks

Next steps

▶ Don't ask for expressions on pictures

- More genuine
- Learn over time
- Harder to detect?

▶ Inform red player

▶ Webscraping