

SHARED EMOTIONS FOSTER TACIT COORDINATION

Inga Jonaityte* and Massimo Warglien

ABSTRACT

Emotions affect many aspects of organizational life. Here we draw attention to the influence of affective states on tacit coordination, that is, coordination without explicit communication. We argue that shared emotions affect tacit coordination by influencing cognitive processes that determine salient and focal alternatives. Our coordination-game experiment, based on global/local processing tasks and mood inducing procedures, shows that positive emotions broaden attention and induce global processing, leading to enhanced tacit coordination. Instead, low positivity, driven by negative emotions, narrows attention and induces local processing, leading to less favorable tacit coordination.

OBJECTIVES

We focus on the effect that shared emotions may have on the perception of the focality of the alternatives and tacit-coordination outcomes.

HYPOTHESES

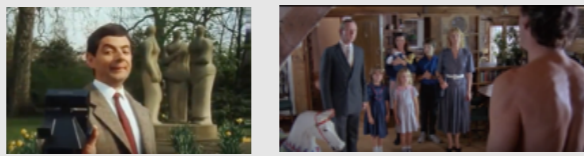
- H1 Shared emotions affect tacit coordination.
- H2 The higher the background positivity, the more likely the use of global processing and the higher the tacit coordination success.
- H3 The higher the induced positivity, the more likely the use of global processing and the higher the tacit coordination success.

METHODS

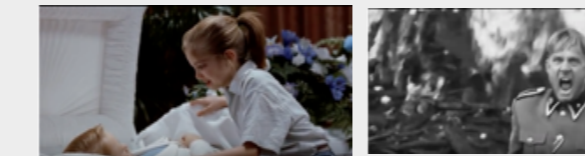
EXPERIMENTAL DESIGN (the three main stages)

- A set of six-item self-assessment scales to measure the 6 discrete emotions of the participants, both before and after the mood induction: we refer to them as background (subscript B) and induced (subscript I) moods, respectively. The positivity ratio (PR) was obtained by dividing positive-affect (PA) scale (happiness, amusement) by negative-affect (NA) scale (sadness, anger, disgust, fear).
- A mixture of three pre-validated mood-induction procedures to manipulate the affective states of the participants (negative vs positive).

Positive Mood Induction



Negative Mood Induction

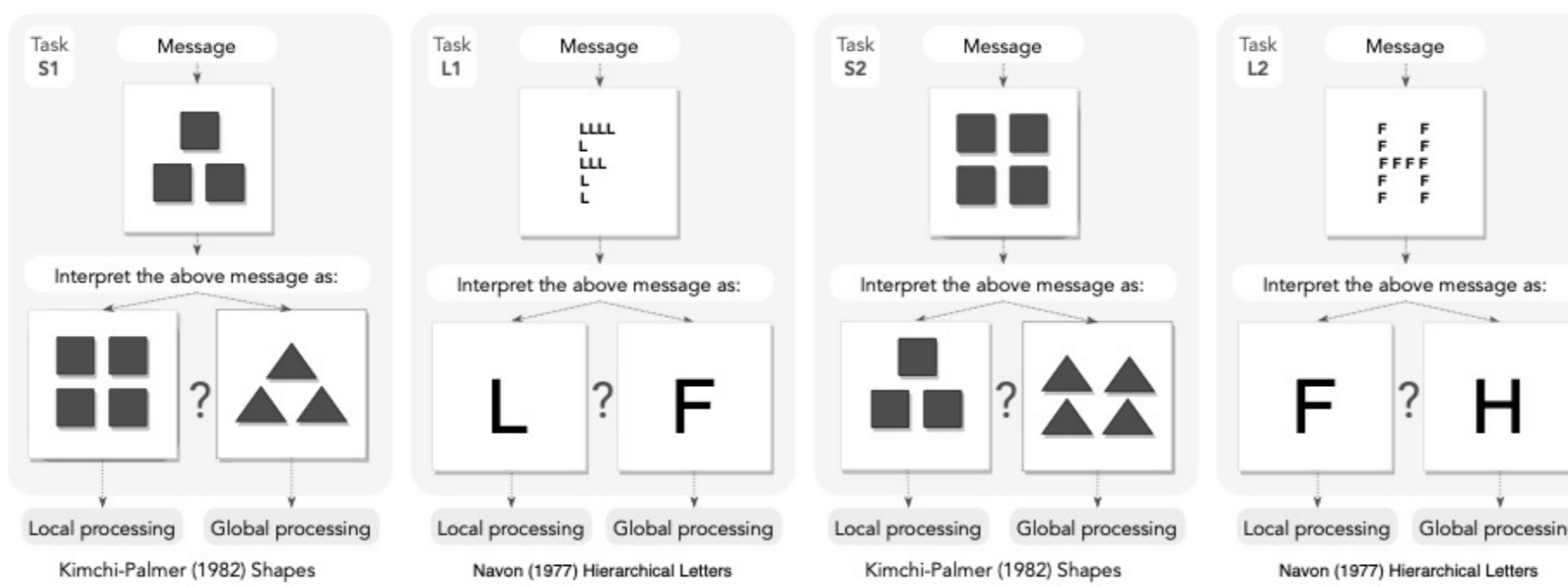


Please, think about the most positive/negative and uplifting/upsetting memory of your life. In a few sentences describe how this event or the story made you feel. Try to elaborate and describe those extremely positive/negative feelings in at least 100 characters. Feel free to leave out real names, places, or other indicative information.

Wolfgang Amadeus Mozart
Serenade No. 13 In G Major, K 525
Eine Kleine Nachtmusik - Allegro

Gustav Mahler: Symphony No.5 In C Sharp Minor - 4th Movement

- Tacit-coordination choice tasks to assess the coordination outcomes. To manipulate coordination each participant was informed that (1) he/she would be matched with an anonymous partner, (2) they could not communicate with each other, (3) both partners would face the same decision tasks, and (4) earn a bonus if their choices matched.



- **GLOBAL PROCESSING.** The responses of coordination tasks S1, L1, S2, and L2 were added up, each scoring 1 if global and 0 if local. High scores correspond to a tendency toward global-information processing, whereas low scores reflect local-information processing.
- **COORDINATION INDEX (CI)** is the propensity to coordinate (Mehta et al., 1994). We measured it with a global-local choice task and computed it using equation:

$$CI = \sum_{i=1}^k \left(\frac{m_i}{N} \right) \left[\frac{(m_i - 1)}{(N - 1)} \right]$$

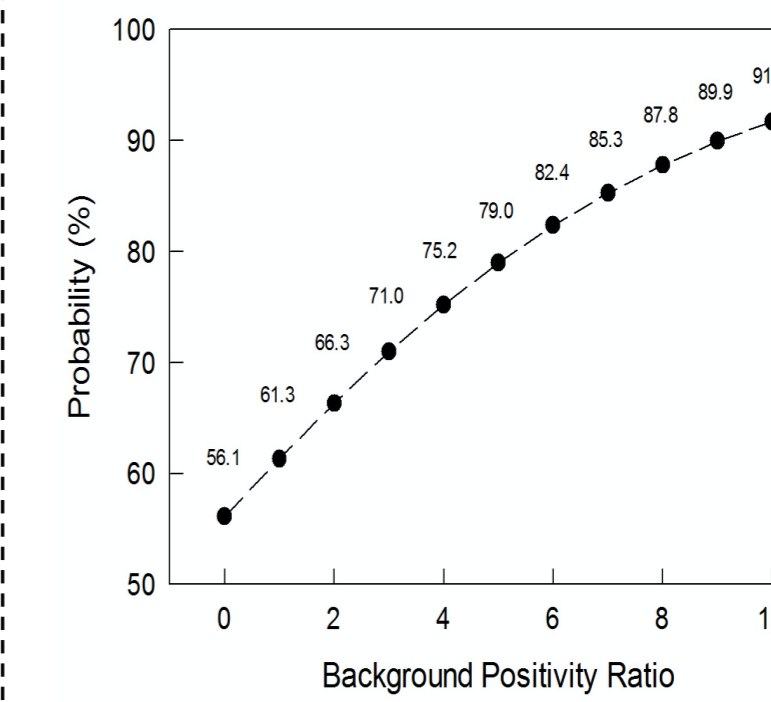
where N is the number of subjects in the specific group, k is the number of distinct responses given to a particular question by those subjects, and m_i is the number of subjects that gave the specific i response. The value of c ranges from 0 to 1.

PARTICIPANTS $N=400$, AMT workers, Mean age 35.09 years ($SD=10.75$), female, 43.0%, Caucasian, 77.5%, four-year degree or higher, 46.5%, employed full or part time, 77.3%, residing in the U.S.A., 99.8%.

RESULTS

- **Positivity Ratio (PR_B)** is positively correlated, in an aggregate form, to the global processing for all four tasks S1, L1, S2, & L2 (Spearman's $\rho = .142$, $p < .022$, 1-tailed).
- PR_B is also positively and significantly correlated with the global processing in the first task choice, S1(1) (Spearman's $\rho = .147$, $p = .019$, 1-tailed).
- **Anger** (Spearman's $\rho = -.135$, $p = .028$, 1-tailed) and **disgust** ($\rho = -.205$, $p = .002$, 1-tailed) are negatively correlated with global choices.
- **Logistic regression analysis:** we compute the probability P of a person choosing the global option, S1(1), on the basis of the two PR values PR_B and PR_I as the predictors.
- We find a significant association only between PR_B and global processing, ($X^2 = 8.878$, $df = 1$, $p = .003$); induced positivity ratio (PR_I), however, is not a significant predictor.
- The coefficients β_0 and β_B are .245 and .216, respectively.

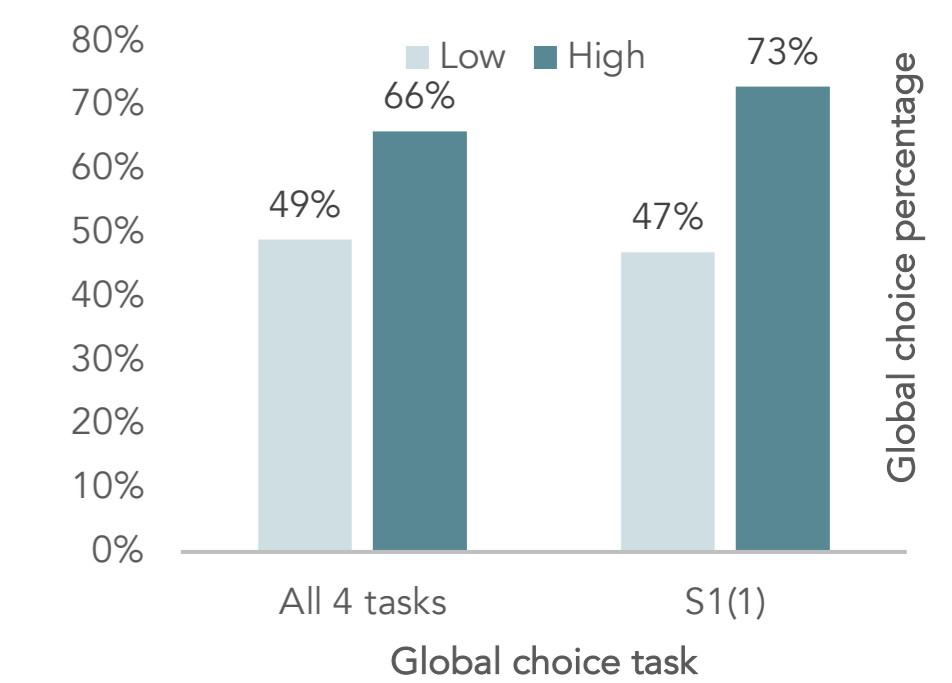
Predicted probability P of choosing global (%) on the basis of PR_B



The odds ratio corresponding to an increase of PR_B by one unit is 1.241, which indicates that the participants are more likely to use global processing (95% confidence interval: lower 1.059, upper 1.456).

COORDINATION INDEX

- **High-positivity group** 25% ($n = 50$) of those that scored the highest PRs, $CI = 0.59$.
- **The low-positivity group** (25% ($n = 51$) of those that scored the lowest ratios) group, $CI = 0.49$.



DISCUSSION

- Evidence that the tacit-coordination success depends on the processing style and attention focus, which in turn is shaped by people's emotions.
- The impact of the background emotions on the global processing and tacit coordination is surprisingly persistent.
- **Induced emotions** have little effect on altering processing style or improving tacit coordination: background mood prevails; emotional common ground cannot be easily manipulated through mood induction.
- **High background positivity** can lead to increased global processing, attention broadening and enhanced tacit coordination outcomes.
- **Low background positivity** driven by anger and disgust, acts on attention narrowing and local processing, leading to diminished tacit coordination outcomes.

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Ca' Foscari
University
of Venice



CERME
CENTER FOR EXPERIMENTAL RESEARCH
IN MANAGEMENT AND ECONOMICS



Inga.Jonaityte@unive.it



zoom

Meeting ID: 774 8057 9186
Passcode: 8eCAkW

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