

# Development of a social conflict approach-avoidance task based on competition.

(pilot study)

Morales, S<sup>1</sup>., Acuña, A<sup>1</sup>., Uriarte, L<sup>1</sup>., Cohen, N<sup>1</sup>., Irastorza, C.<sup>1</sup>,  
Amoroso, M.E.<sup>1</sup>, Pérez, A<sup>1</sup>, Cabana, A., Gradin, V.B<sup>1\*</sup>

1. CIBPsi, Faculty of Psychology, Universidad de la  
República, Montevideo, Uruguay

# Introduction

- Depression is a prevalent disorder (WHO,2017)
- Ranked as the leading cause of disability worldwide (Bromet et al, 2011)
- Approach-avoidance theories helps to understand mental health disorders. (Corr, P.J, 2013)
- Approach behaviors are those that allow going towards rewards.
- Avoidance behaviours involve the individual's defense/self-protection (Aupperle et al, 2011)
- Approach-avoidance conflict refers to situations that involve both reward and aversive stimuli. (Aupperle et al, 2011; Carver C.S & White, T.L, 1994)
- Depression - diminished approach system and by an over-activated avoidance system. (Ironsides et al, 2020)
- Avoidance is very important in depression because they miss opportunities to avoid aversive stimuli. (Papakostas et al, 2004; Otteinbeir, 2014)
- The need to have social tasks of approach avoidance conflict. (Kirlic et al, 2007, Aupperle t al, 2015, Smith et al, 2021)
- The social functioning is greatly affected in depression (Spijker et al, 2004, )

## Approach-avoidance conflict studies in the literature

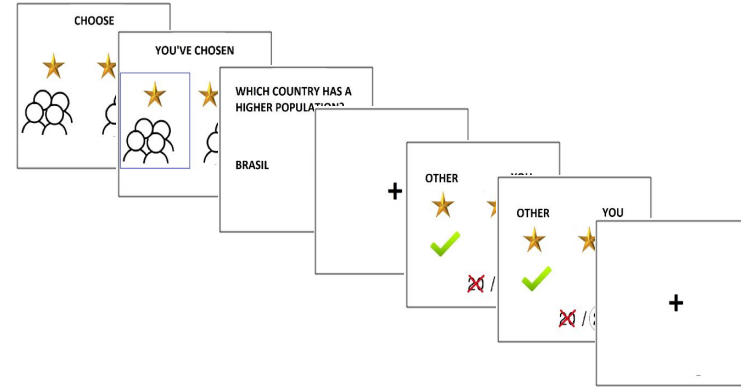


+



**Interactive social task of approach - avoidance conflict.**

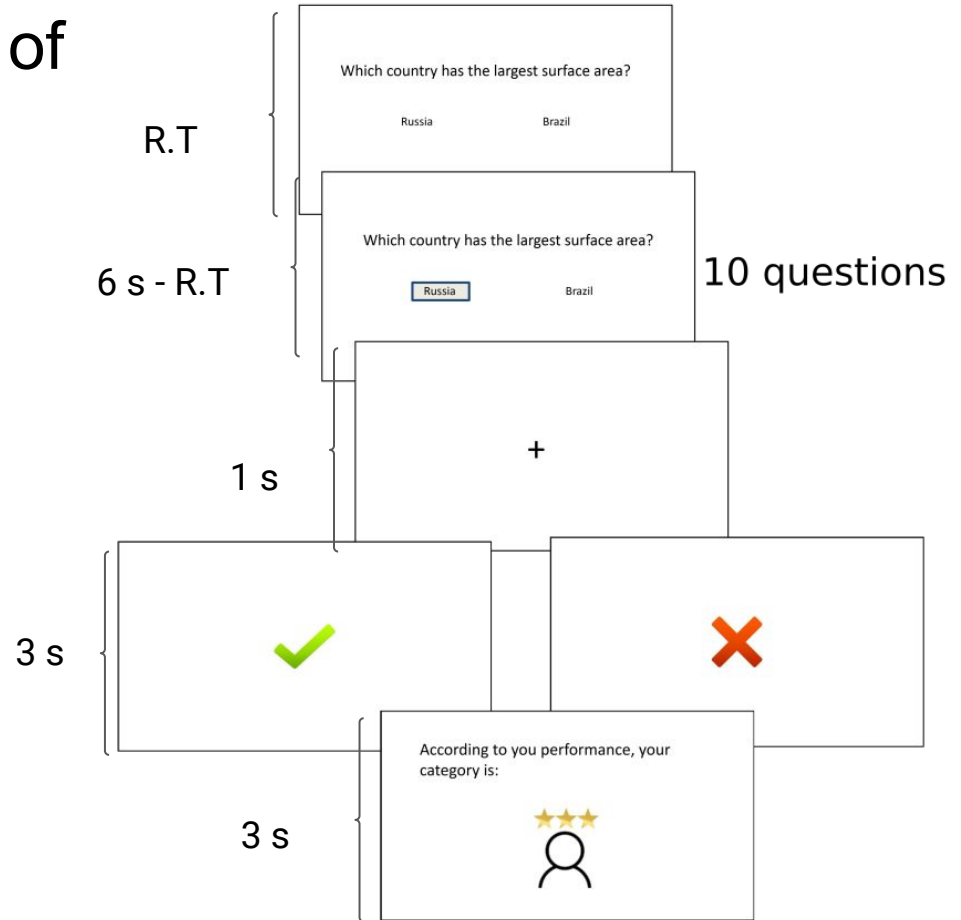
## Social tasks designed by our group



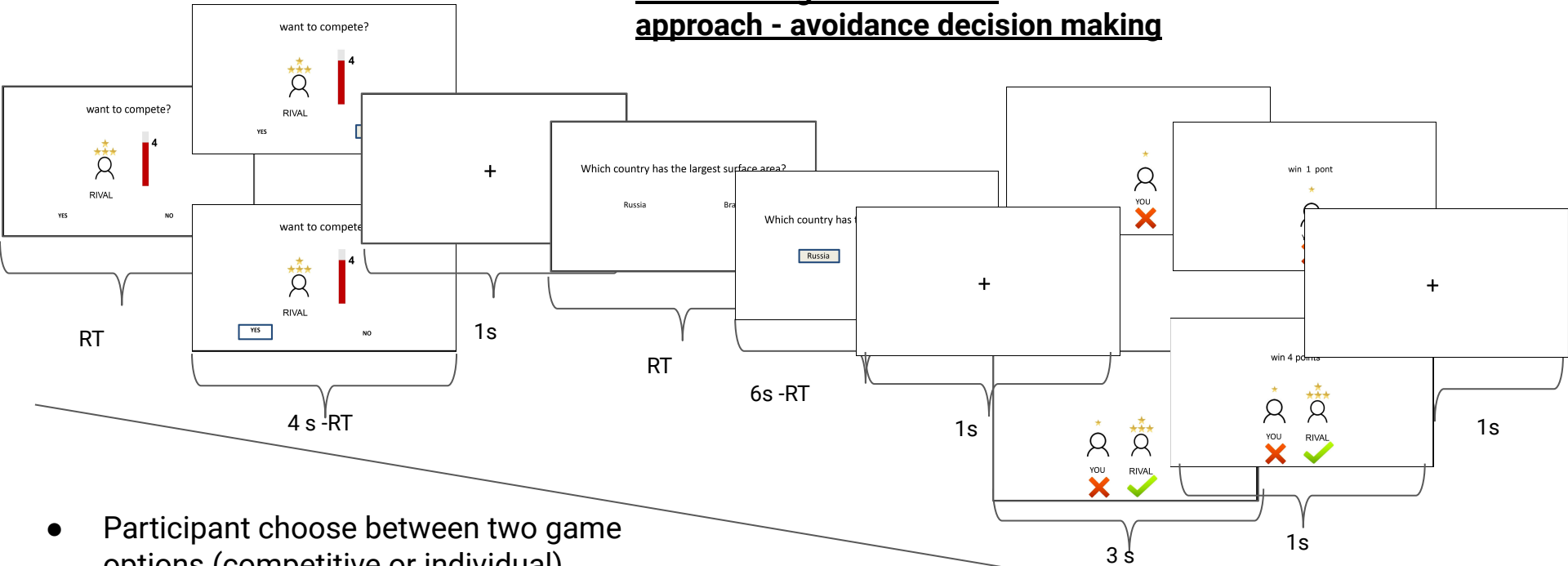
# Interactive social task of approach-avoidance conflict

## First stage of the task : participant categorization

- 10 general culture(trivia) questions
- The participant is assigned to a category from 1 to 5 stars.
- If the participant answers most of the questions well, he/she is assigned to the 5 star category.
- If most of the questions are wrong, the participant is assigned to a 1 star category.
- All participants were assigned to the 3 star category.



## Second stage of the task : approach - avoidance decision making



- Participant choose between two game options (competitive or individual).
- if you choose 'Yes' (competitive option) you receive the reward and compete with a rival.
- if you choose 'NO' (individual option) you receive only one point but do not compete with a rival.

## Outcomes

### Competitive



### individual



Competitive option:

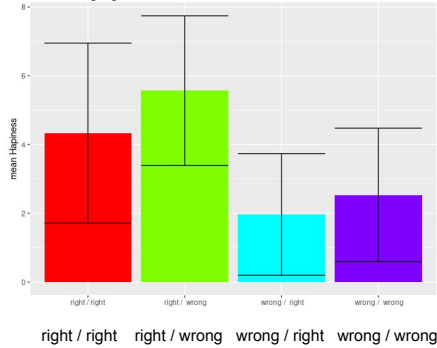
- player right / rival right
- player right / rival wrong
- player wrong / rival right
- player wrong / rival wrong

Individual options:

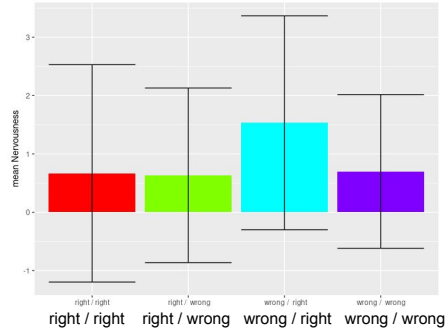
- player right
- player wrong

# Emotional responses to the outcomes

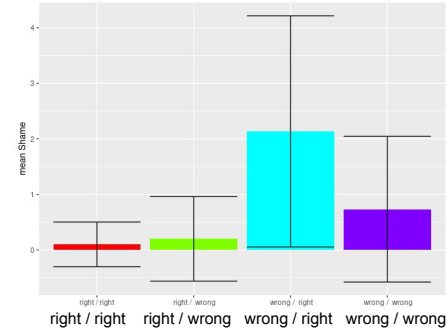
## Happiness



## Nervousness



## Shame

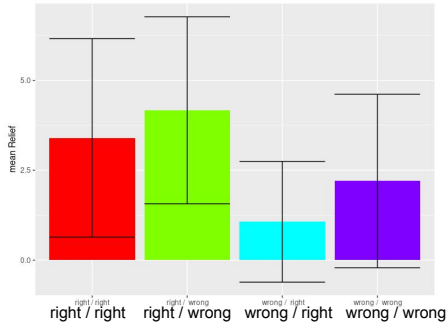


Participants reported more shame in a situation participant wrong / rival right

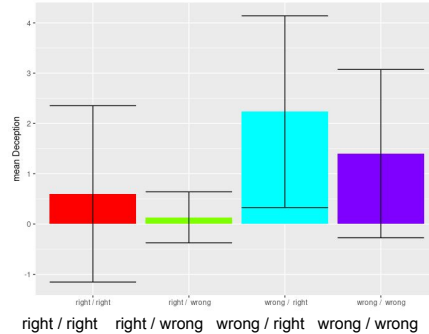
The same happens for:

- Nervousness
- Deception
- Sadness

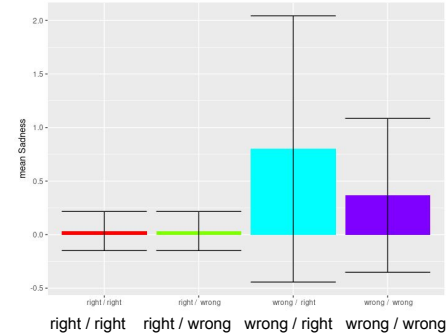
## Relief



## Deception

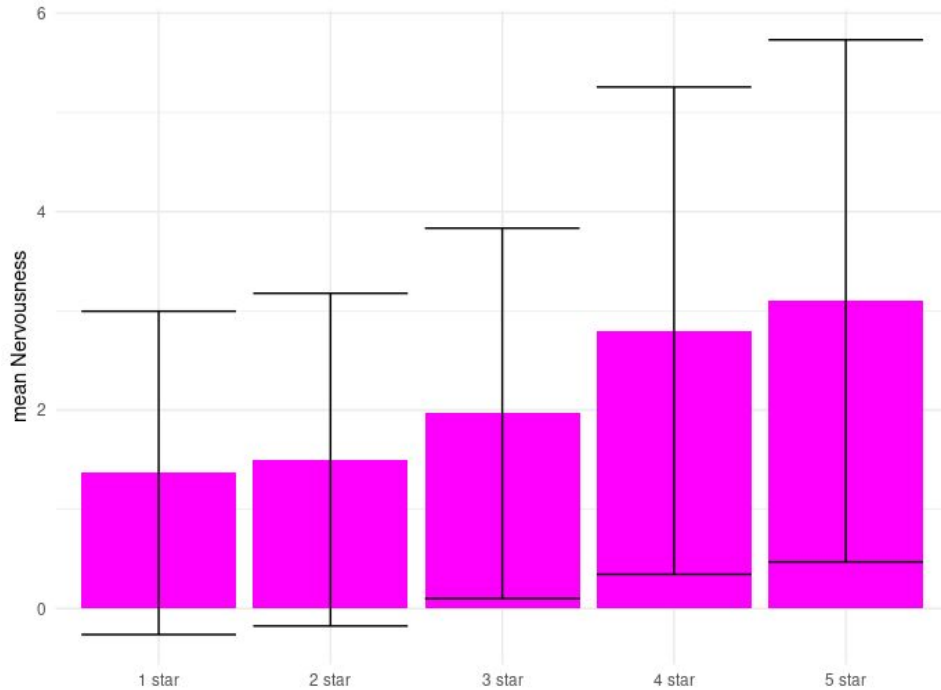


## Sadness

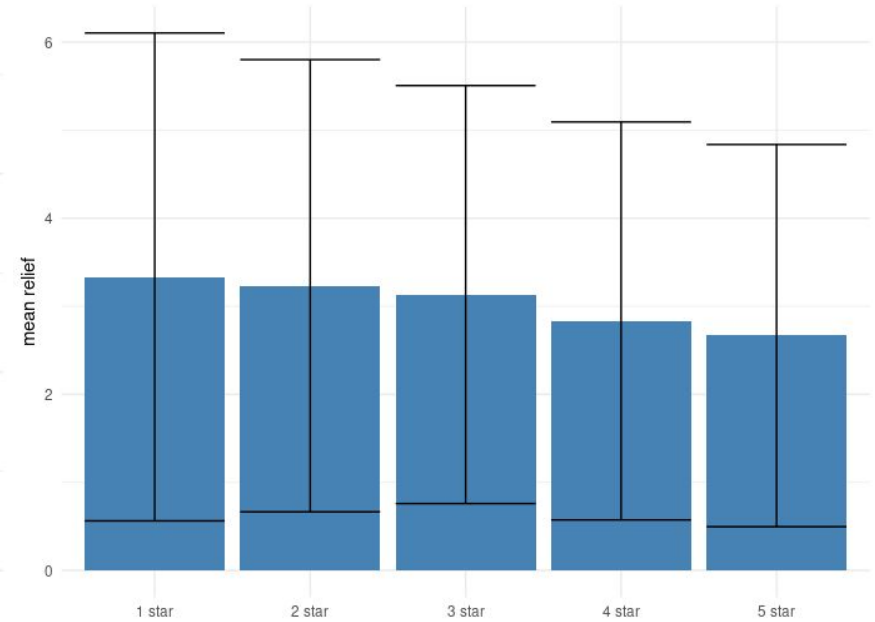


Participants reported more happiness and more relief in the situation of a participant right / rival wrong

# Emotional responses to the co - player category



- Participants reported greater nervousness higher the category of the co-player

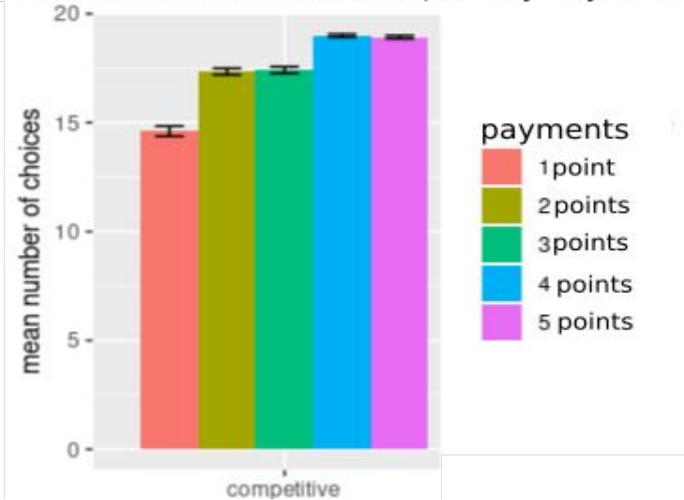


- Participant reported less relief the higher category of the co-players.



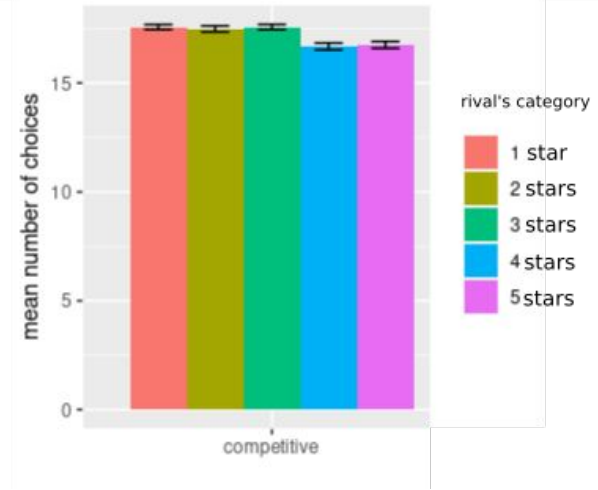
# Behavioral results

Mean number of choices social option by Payment



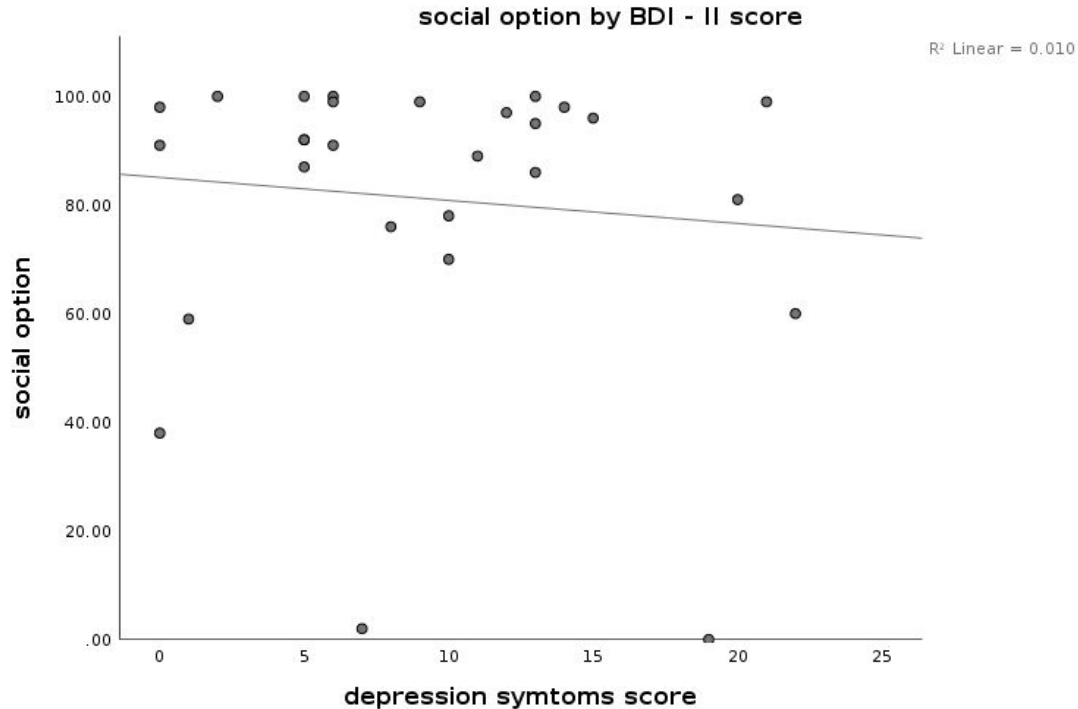
We observed modulation in decision making in relation to payments.

Mean number of choices social option by Rival's category



We did not observe a significant effect on the modulation of decision making by Rival's category

# Correlation between depressive symptoms and avoidance.



- The Higher the depressive symptoms the higher social avoidance.

**(r = - 0.413, p= 0.026)**

# Conclusion

- We aimed to design an interactive social conflict approach-avoidance task that emulates real life situations in which people have to evaluate whether they are willing to face social stressors with the goal of receiving certain benefits.
- The task evoked the expected emotions.(Nervousness, Sadness, Shame, Deception)
- The Higher depressive symptoms the higher social avoidance.
- Participants avoided the social option (competitive option )at the expense of losing benefits.
- The task presented some limitations. For example, we did not see a modulation of the behavioral responses according to the category of the co-player as would be expected.
- We think this is because it is very clear that the competitive option is more economically beneficial.
- We are thinking about some modifications to the task. ( Change the player's category, emphasize the meeting with the rivals, modify some aspects of covert story)
- This study contributes to the development of social approach-avoidance tasks, with potential for studying behavioural biases in populations with mental disorders.