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The Relationship between the Valence and Arousal of Emotions and the Decision-Making on Donations

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INTRODUCTION

Charity has a significant impact on socio-economic processes and has increasingly become the subject of neuroeconomic research over the recent years. One of the important topics is the influence of emotions on decision-making about donations.

The use of emotional appeals is one of the most widely used methods of drawing to a donation behavior. However, the question of how valence and arousal affect the size of a donation is still insufficiently studied.

The purpose of this study

To investigate the relationship between emotional state and donation size in the context of charitable organizations supporting homeless pets.

Hypothesis of the research

The size of donations may vary depending on valence and arousal of pictures, as well as on the characteristics of dogs.

MATERIALS AND METHODS

Sample

Fifty-four healthy participants (38 of females, mean age = 28 years)

Stimulus material

32 photos of dogs with 4 properties: health status, presence of a home, age, presence of a human nearby (Fig. 1).

Measuring

Donations for each picture: from 0 to 10 rubles.

Valence and arousal measures: self-report 9-point scales.

Physiological measures: corrugator and zygomatic electromyography (EMG), heart rate, skin conductance response (SCR).

Figure 1. Examples of stimulus



RESULTS:

Pearson correlation analysis showed that the size of a donation was negatively correlated with valence ($r(54) = -.811, p < .001$). Arousal and donation also showed a significant correlation ($r(54) = .477, p = .006$). These correlations mean that the more unpleasant and intense emotions the participants experienced, the more they donated. We also found a positive correlation between the corrugator EMG and the size of donation ($r(54) = .695, p < .001$). Thus, the more the subjects frowned (the corrugator activity), the larger a donation was. Among the characteristics of dogs, a significant effect on the size of donation was shown only by the health status of dogs at the picture (sick / healthy) ($F(1, 16) = 188.92, p < .0001$), sick dogs evoked more donations than healthy ones.

Figure 2. Correlations plots

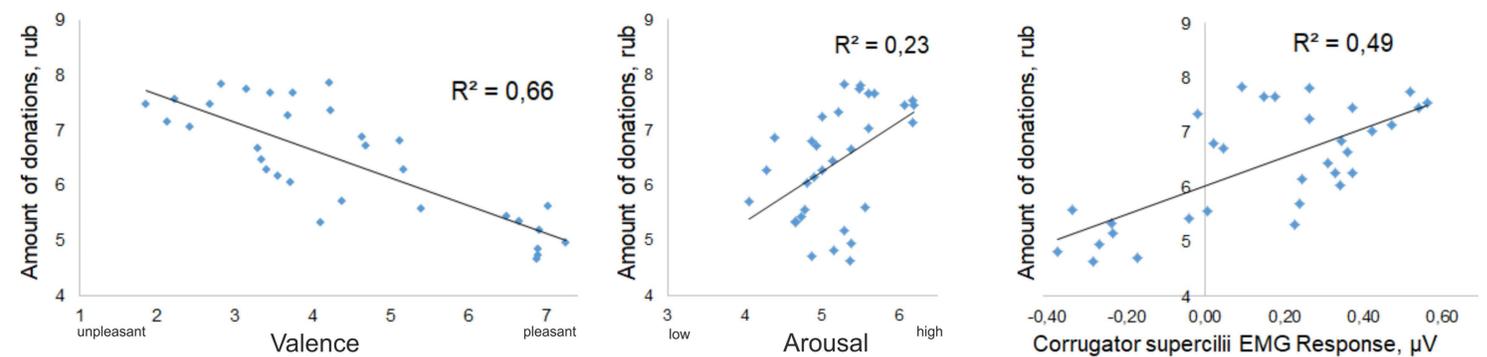
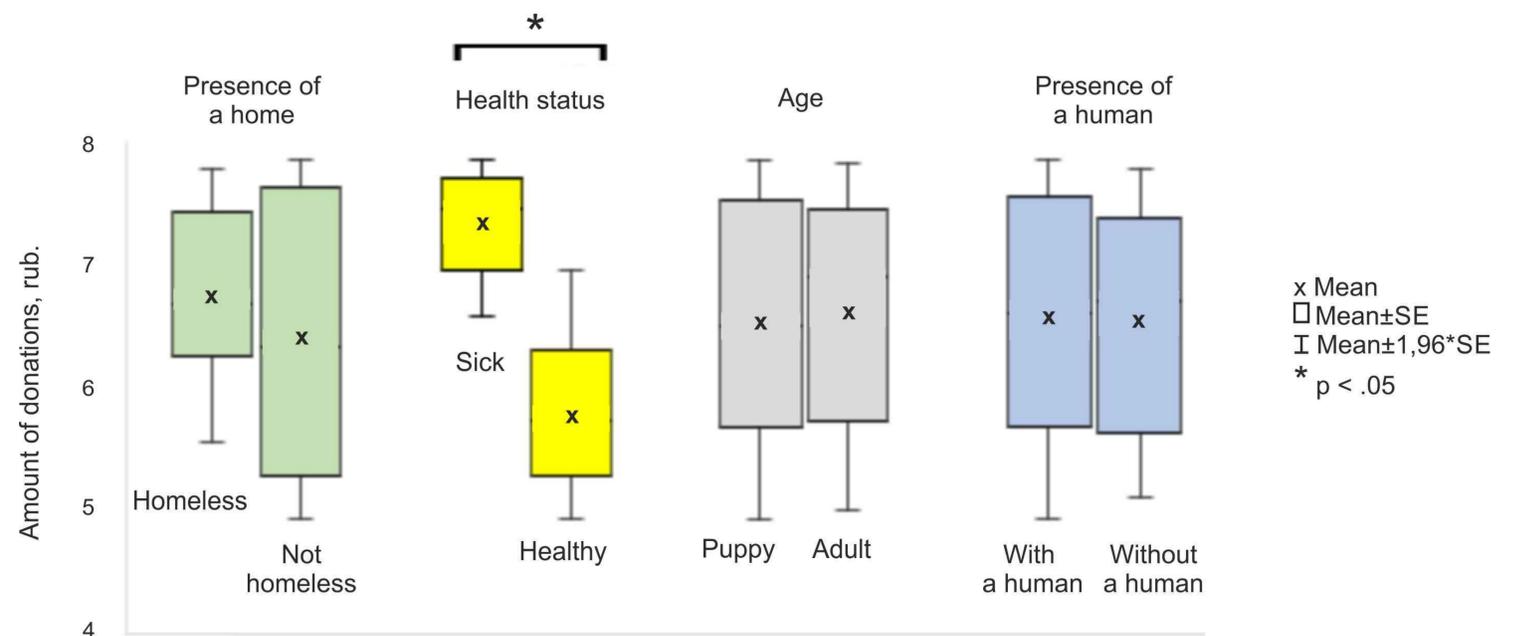


Figure 3. Comparison of donations by the characteristics of dogs



CONCLUSIONS:

Negative valence and greater arousal provoked greater donations.

Corrugator supercilii EMG was related to donations.

Bad health is the most significant characteristic for collecting greater donations for pets.

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