

# More Than a Feeling: Emodiversity Improves Decision-Making

Sergio Pirla<sup>1</sup>, Jordi Quoidbach<sup>2</sup> & Daniel Navarro-Martinez<sup>1</sup>

1 - Universitat Pompeu Fabra, Barcelona, Spain

2 - ESADE Business School, Barcelona, Spain



Decades of research demonstrate that the intensity of our emotions profoundly shapes our choices. We suggest that the complexity of our emotions plays another crucial role. Across one correlational study and two pre-registered experiments, we show that high emodiversity - experiencing a wide variety of emotions in relatively equal proportion - improves decision outcomes, reduces known decision-making biases, and leads to higher choice satisfaction. Using a large experience sampling study, we further examine the potential long-term consequences of this relationship, showing how the daily experience of rich and balanced emotions can compound into more satisfying lives.

# **Study 1: Do People Who Experience Diverse Emotions** Make Better Everyday Decisions?

Procedures: Participants (N=363) rated how often they experienced 60 different emotions. They also completed a measure of everyday decision outcome quality (DOI, Bruine de Bruin et al., 2007).

Methods: We used the Shannon biodiversity index (Shannon, 1948) to quantify emodiversity (evenness and relative abundance of emotional experiences). We ran a specification curve analysis (Simonshon et al., 2020).

<u>Results</u>: Emodiversity has a joint positive effect on decision outcome

### **Study 2: Does Experiencing Diverse Emotions Before a Decision Reduce Biases?**

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Procedures: Participants (N=254) completed a set of decision scenarios from the Adult Decision-Making Competence scale (Bruine de Bruin et al., 2007). Before answering each scenario, participants completed an emodiversity manipulation. Emodiversity Manipulation: Participants had to select one emotion they would experience in the situation and provide 3 reasons why they would feel that way (low emodiversity) vs. select 3 emotions and provide 1 reason per emotion (high emodiversity).

<u>Results:</u> Participants assigned to the high emodiversity condition exhibited reduced

quality across specifications (p < 0.02 for the 3 significance criteria in Simonshon et al., 2020).







Fig 1: Blue – Emodiversity Coefficient. Red – Coefficient (and 95%CI) of emodiversity under the null of no effect.

## Study 4: Can Daily Decisions Informed by Rich and **Balanced Emotions Compound into More Satisfying Lives?**

<u>Procedures</u>: Experience-sampling study (N>12,000). Participants reported their life satisfaction and current affective states on a list of 18 discrete emotions using a smartphone app at several random times a day (over an average of one month).

Results: Emodiversity was significantly associated with life satisfaction (beta = 0.035, t = 3.58, p < 0.001).Intra-individual increases in emodiversity over time predict increases in life satisfaction (beta = 0.101, t = 11.31, p < 0.001).

### **Study 3: Does Experiencing Diverse Emotions Before a Decision Increase Choice Satisfaction?**

Procedures: Two-wave study (N=200). In the first session, participants were asked to freely describe a personal decision they needed to make in the following two weeks and completed an emodiversity manipulation (as in Study 2). Two weeks later, participants returned to the lab and rated how happy they were with their final decision.

Results: Participants assigned to the high emodiversity condition reported more satisfaction with their decisions (beta = 0.343, t = 2.426, p = 0.016). See previous figure.

> **Questions & comments welcomed** Email: sergio.pirla@upf.edu