

How Strict Self-isolation Impacts Well-Being

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Introduction

The **quarantine policy** is widely adopted to curb the transmission of infectious diseases, but can be controversial due to ethical concerns (e.g., privacy, right of mobility, equity) and potential mental health consequences like stress, anxiety, and feelings of isolation (Brooks et al., 2020). While stakeholders often draw from studies on solitary confinement and incarceration to evaluate the quarantine policy, it can be different from the quarantine experience.

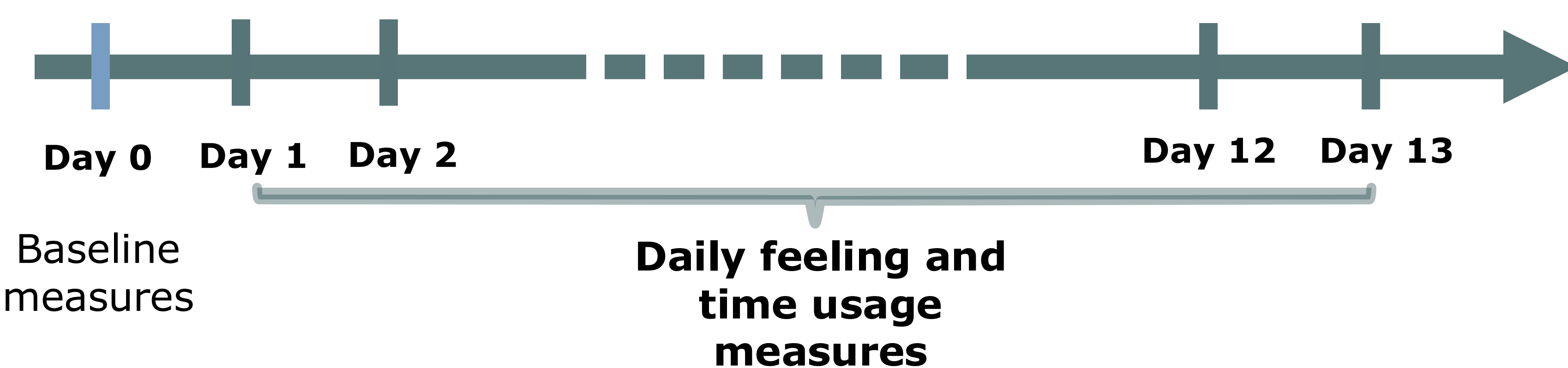
Research questions:

- What is the impact of mandatory quarantine / strict isolation on feelings and time consumption?**
- Can individuals correctly predict the impact of strict self-isolation on their well-being?**

Method

S1: Diary study (N = 301; 7,756 data points) :

- Quarantine group** (N = 179):
 - Entered a foreign country and quarantined in randomly assigned hotel rooms alone for ≥ 14 days
- Benchmark group** (N = 122):
 - Entered the same foreign country without mandatory quarantine and stayed ≥ 14 days



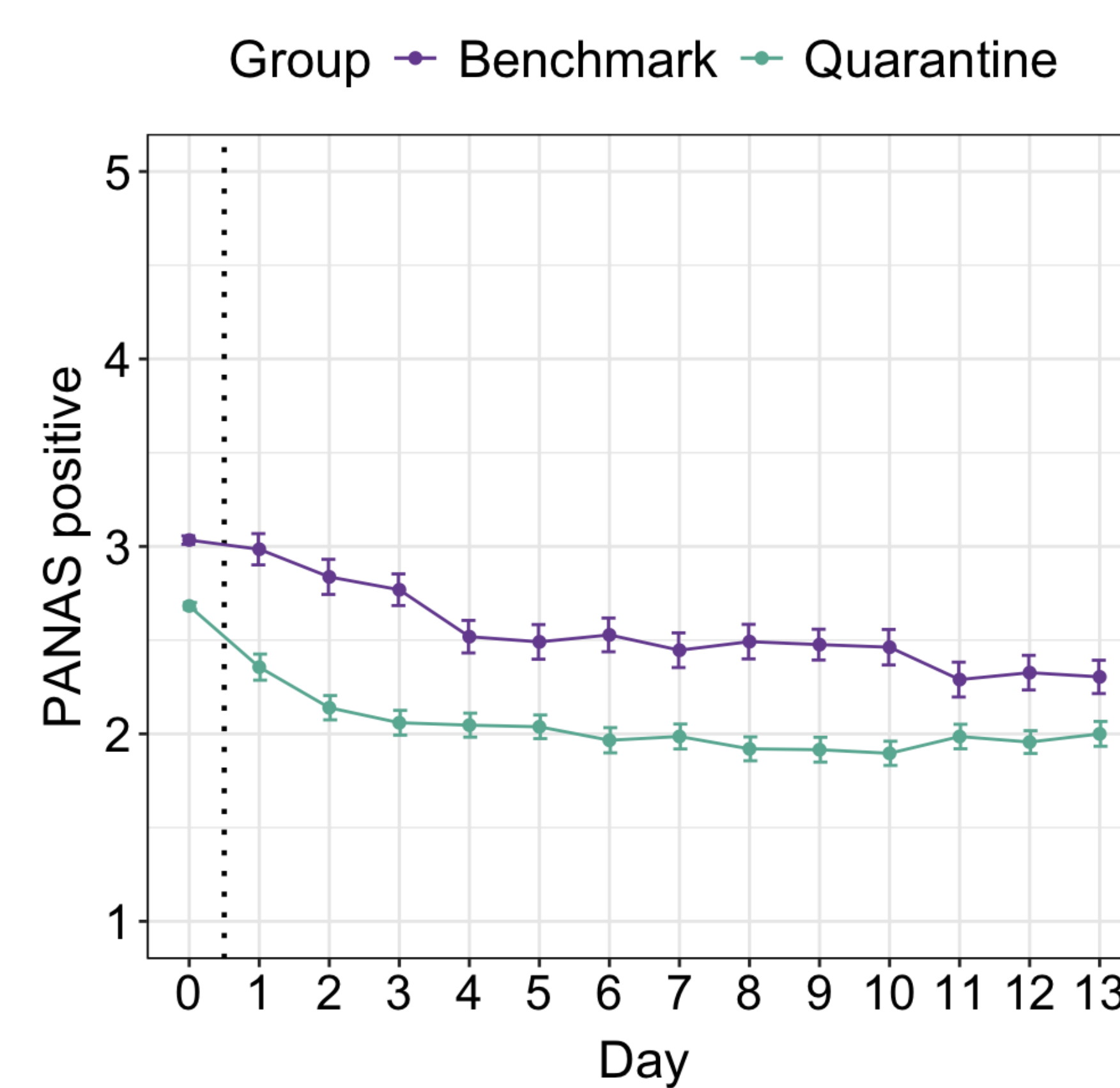
S2: Lab simulation study (N = 253, random assignment)

- Quarantine group** imagined mandatory quarantine in another country for 14 days
- Benchmark group** imagined traveling to another country for 14 days

Results

S1: Actual quarantine experience

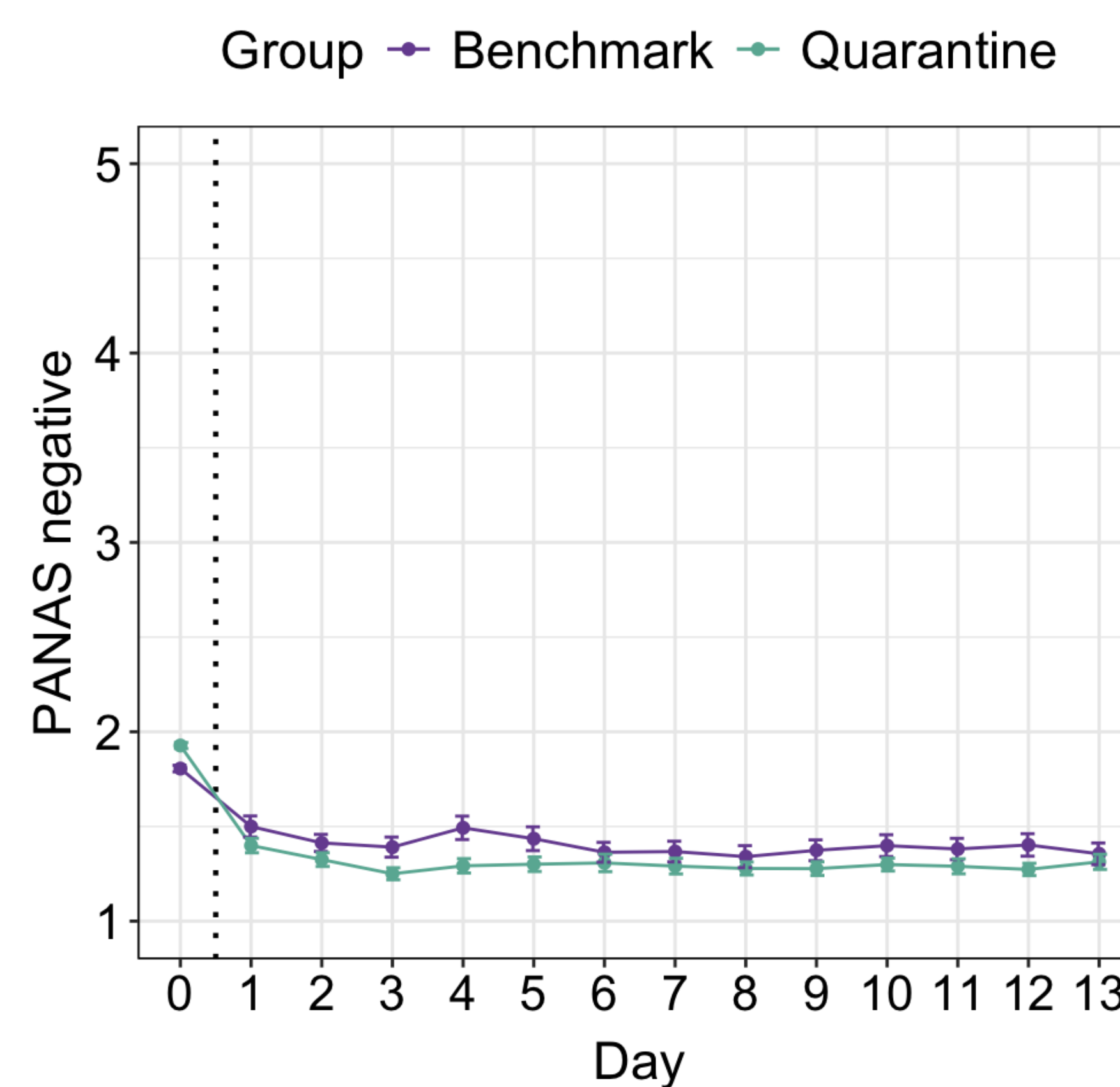
Feelings



Positive emotions:

(PANAS positive, happiness, feeling good...)

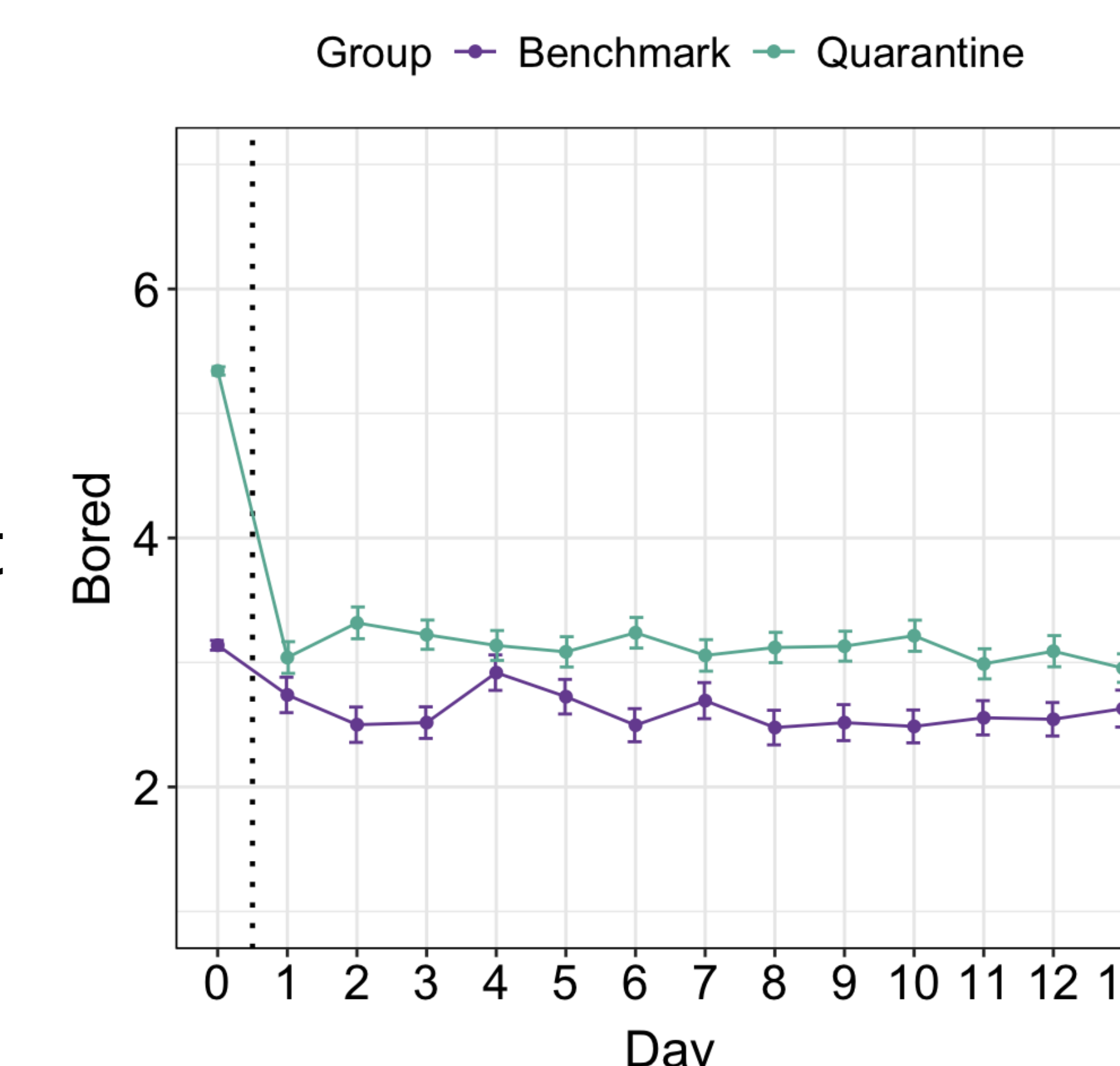
- **Decrease over time** for both groups
- **The quarantine group** experienced **lower level** of positive emotions overall
- **The quarantine group** experienced **slower decrease** in positive affects over time



Negative emotions:

(annoyance, PANAS negative...)

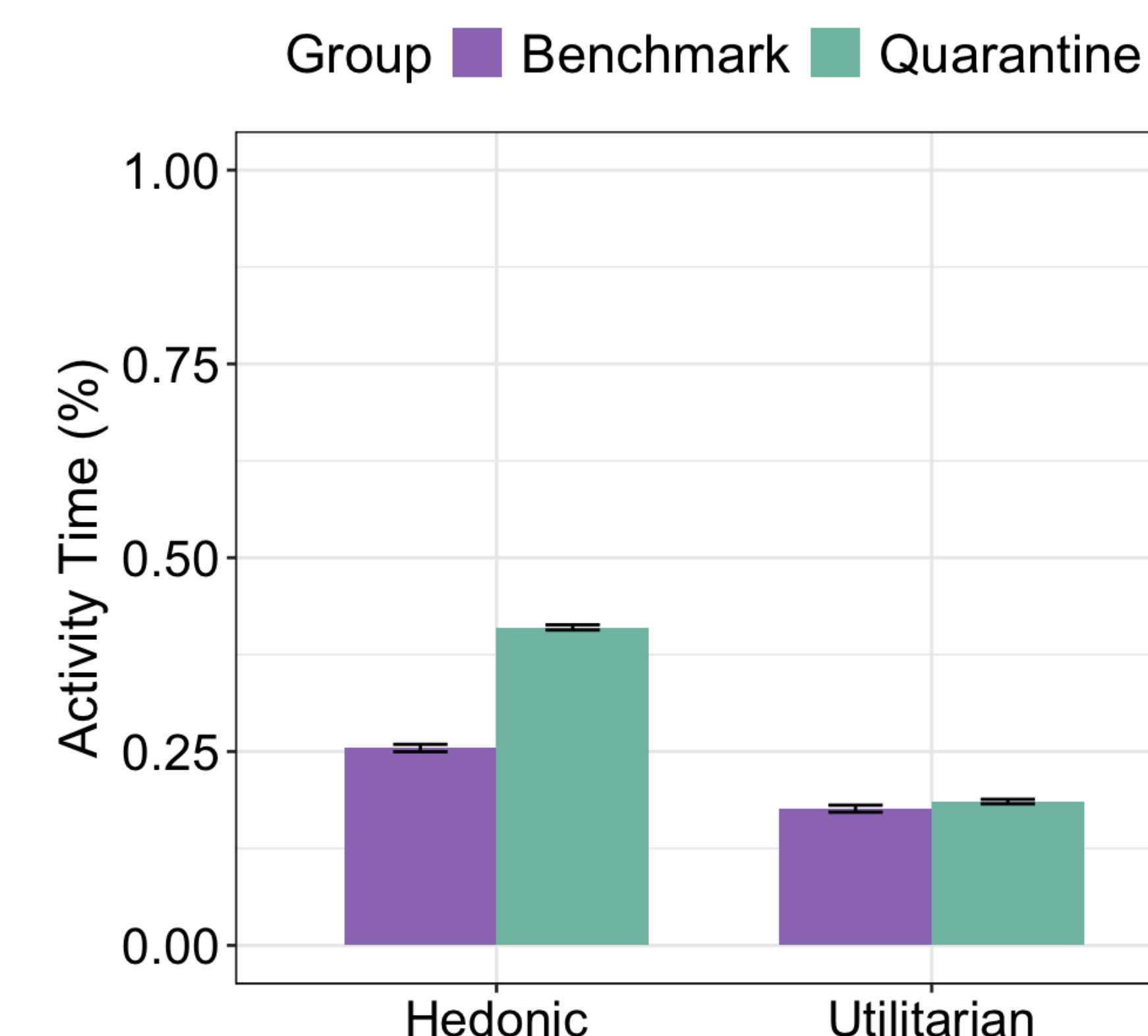
- **No significant differences** in level of negative emotions between the two groups and over time
- **Similar changing rates** between the two groups



Boredom:

- **The quarantine group** experienced **more boredom** over all
- **No significant decrease** over time

Time consumption



Summary:

- The quarantine group participated in more hedonic activity
- Both groups participated in more utilitarian and less hedonic activities over time

S2: Simulated quarantine experience:

Forecasting errors:

- **Positive emotions: the quarantine group** will experience **faster decrease**
- **Negative emotions: the quarantine group** will experience **more negative emotions** and the level **increase over time**
- **Time consumption: the quarantine group** will spend **more time on utilitarian activities** and **less time on hedonic activities**

Takeaway

- Consistent with classical research on affective forecasting, we find over-prediction of negative affect and under-prediction of adaptation in predictions and retrospective evaluations;
- The gaps in affect correspond to mispredictions of time spent on hedonic activities