

# Confidence from Uncertainty:

## Uncertain Decision Makers are More Confident in their Preferential Choices

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### Abstract

How does incidental uncertainty influence decision confidence? Prior research showed that such uncertainty reduces confidence in decisions. Evidence from three experiments reveals that this effect vanishes when the decision is subjective in nature. Confidence in a subjective preferential choice is boosted by incidental uncertainty, as is post-consumption evaluation. I theorize that uncertain decision-makers think more systematically about a decision for which an external criterion of correctness exists, reducing the speed and fluency of decision making and attenuating confidence. In contrast, I propose that uncertain decision-makers engage more structured thinking, generating thoughts more favorable to their chosen alternative, which increases the speed and fluency of decision making and boosts the confidence with which they make their decision.

### Hypotheses

When making subjective preferential choice decisions, incidental uncertainty:

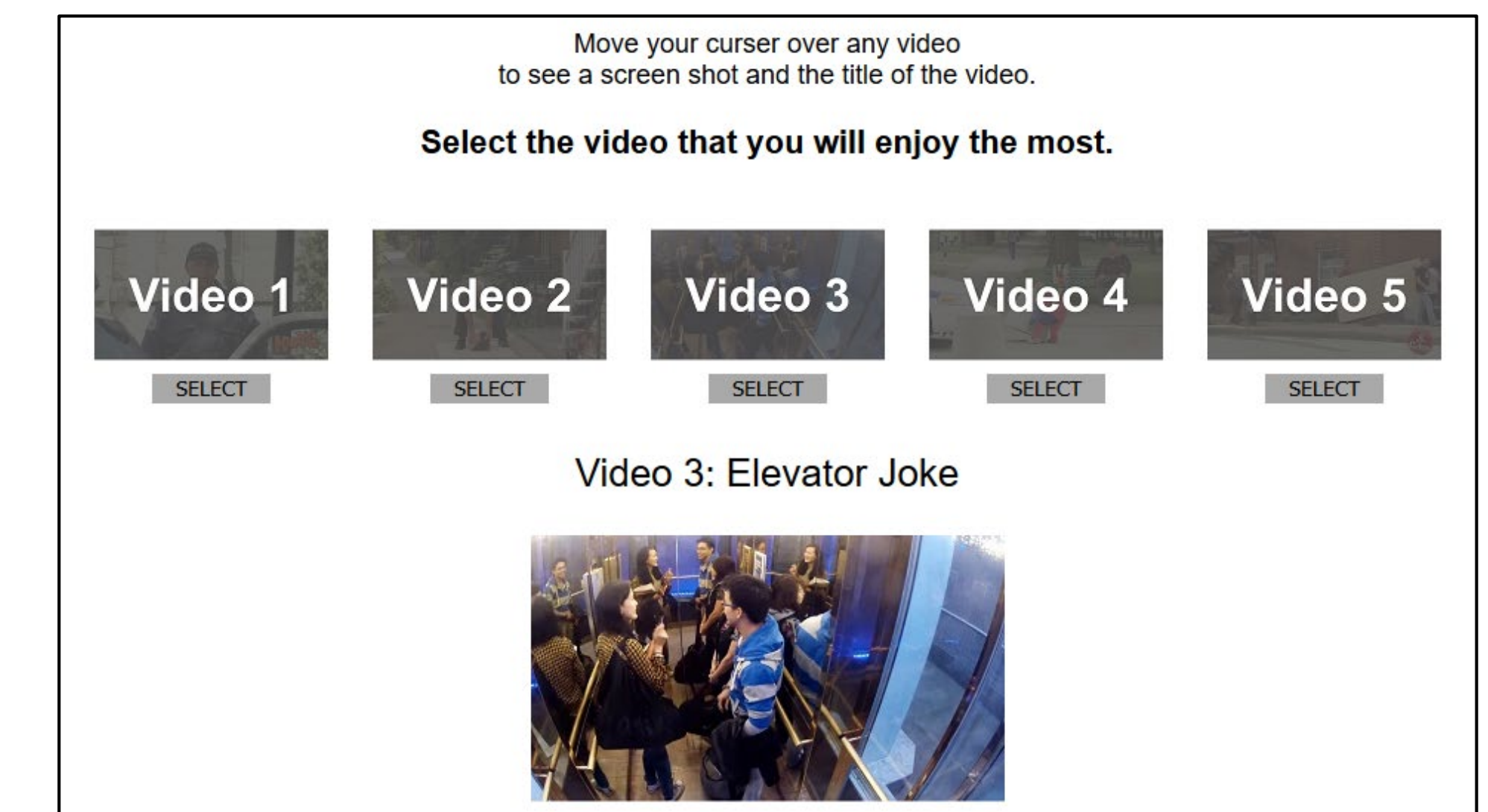
- H1: Boosts decision confidence
- H2: Increases semantic clustering of generated thoughts
- H3: Increases favorability of thoughts to the decision
- H4: Reduces decision making time

### Study 3

Participants ( $N = 118$ ) decided which of five Youtube videos to watch after being induced to be feel either uncertain or certain.

Measures:

- Decision time
- Decision Confidence
- Decision Difficulty
- Thought Protocol
  - Semantic clustering
  - Thought favourability
- Post-consumption recommendation



### Background

**Incidental Uncertainty:** A feeling of subjective uncertainty that it is “normatively irrelevant to present judgments and choices”<sup>1</sup>



How does incidental uncertainty influence decision confidence?

#### Prior Research:

Reduces confidence in objective decisions by increasing systematic processing.<sup>2,3</sup>

#### Current Research:

Increases confidence in subjective decisions by increasing structure in thinking.<sup>4,5</sup>

#### Decision Confidence:

Assessment of the probability of objective correctness.<sup>6</sup>

Belief in the validity of the decision.<sup>7</sup>

Degree of match between decision and preference.<sup>8</sup>

#### Affects behavior by:

Increasing decision and consumption satisfaction<sup>8</sup>, promoting willingness to recommend<sup>8</sup>, increases willingness to pay<sup>9</sup>, and boosting likelihood of purchase completion<sup>10</sup>

Cues from the decision-making process drive confidence<sup>16</sup>

Fluency & Speed

Deliberation & Conflict

Increased Confidence

Decreased Confidence

Subjective decisions require the generation of self-referential thoughts that become more cohesive under the influence of incidental uncertainty, leading to:

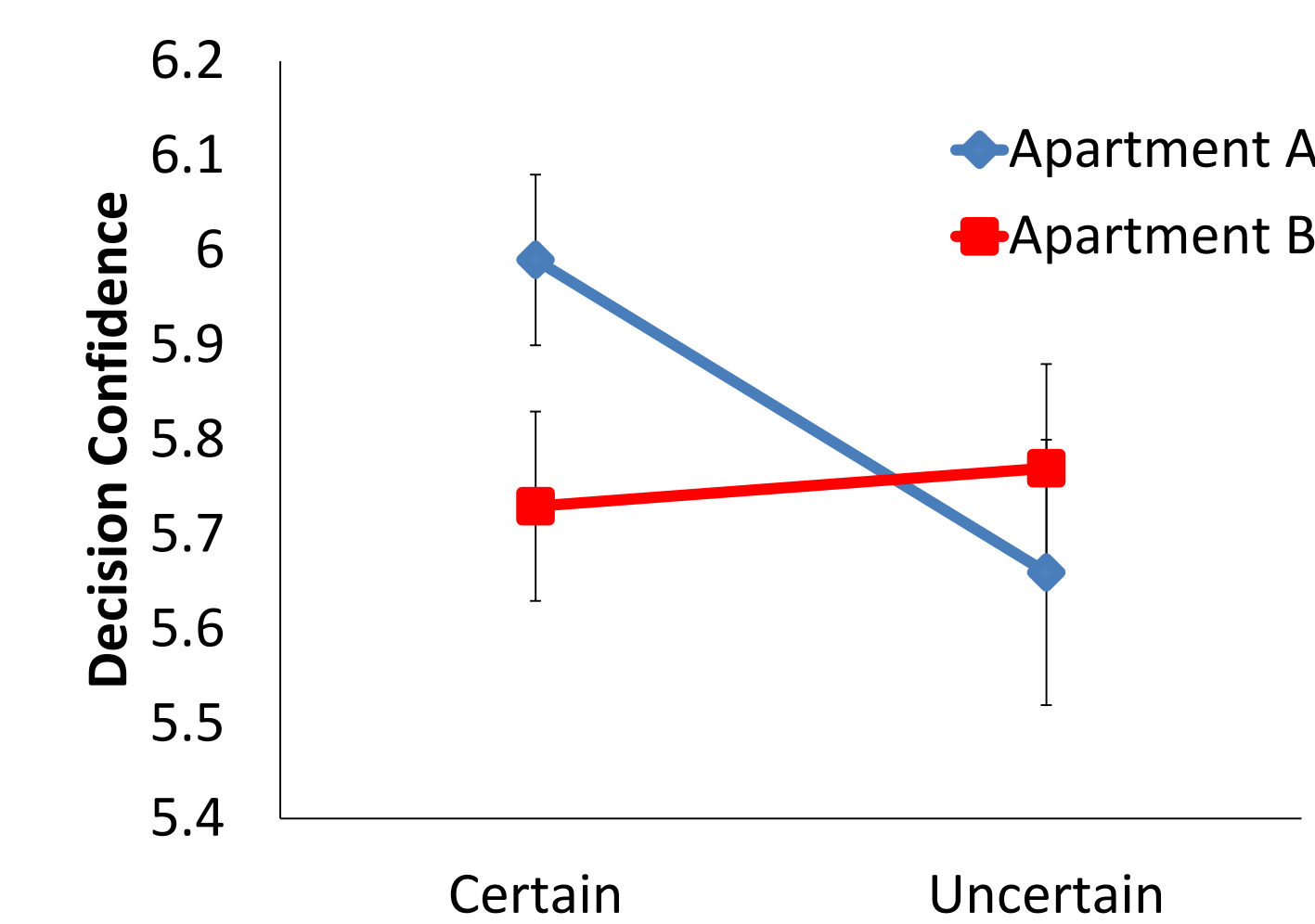
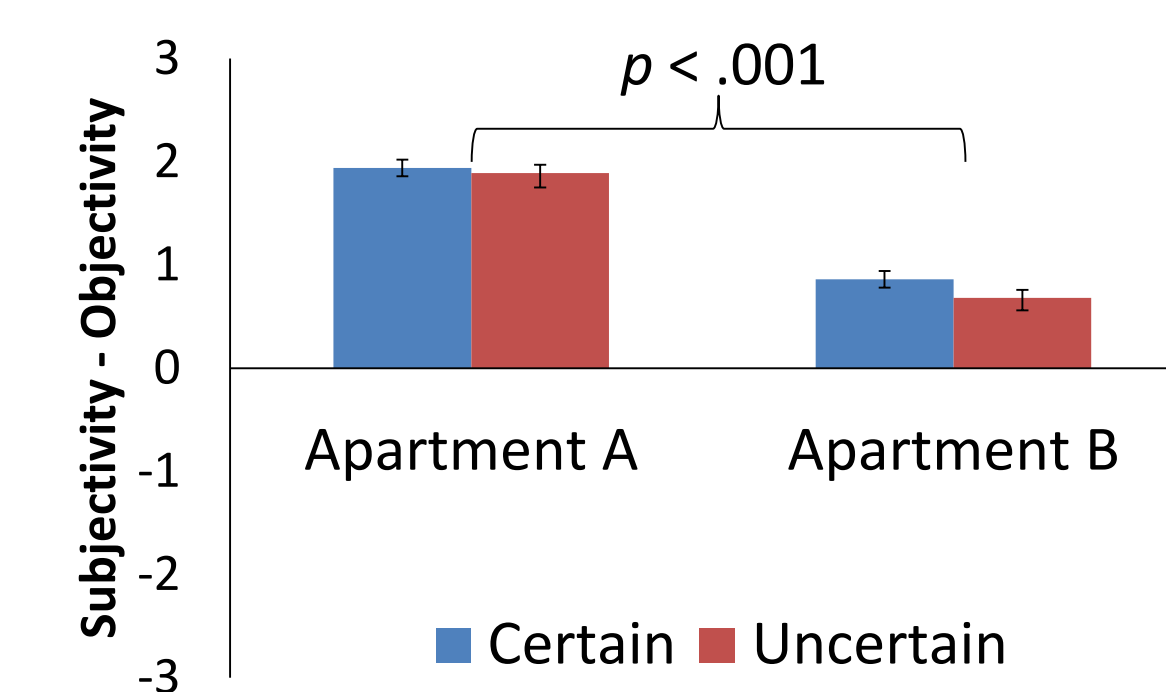
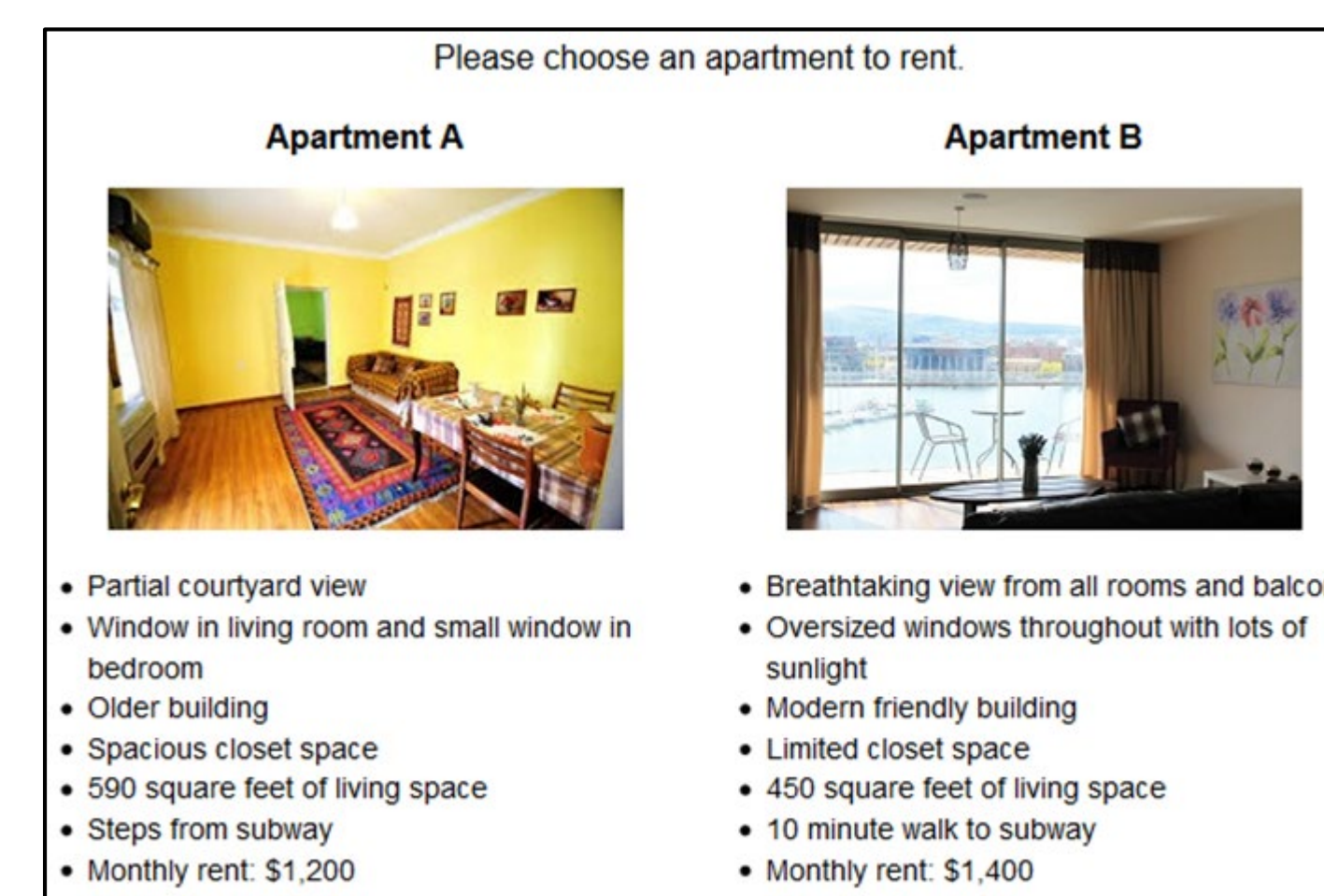
- Stronger associative connections
  - semantic clustering, fluency, speed
- Skewed distribution of thoughts
  - less conflict, more favorable to decision

### Study 1

Participants ( $N = 405$ ) made a decision about renting an apartment after being induced to be feel either uncertain or certain.

Apartment A: Functionally superior.  
Apartment B: Emotionally appealing

DV: Decision Confidence  
Additional Measures:  
Thought protocol (reasons for decision) coded for objectivity-subjectivity  
Classification of apartments.



#### Results:

Participants making the objectively better decision in favor of the functionally superior apartment were less confident when they were uncertain ( $F_{1,402} = 5.62, p = .018$ ).

**This congruency effect vanished among participants selecting the emotionally appealing alternative ( $F_{1,402} = 0.04, p = .837$ ).**

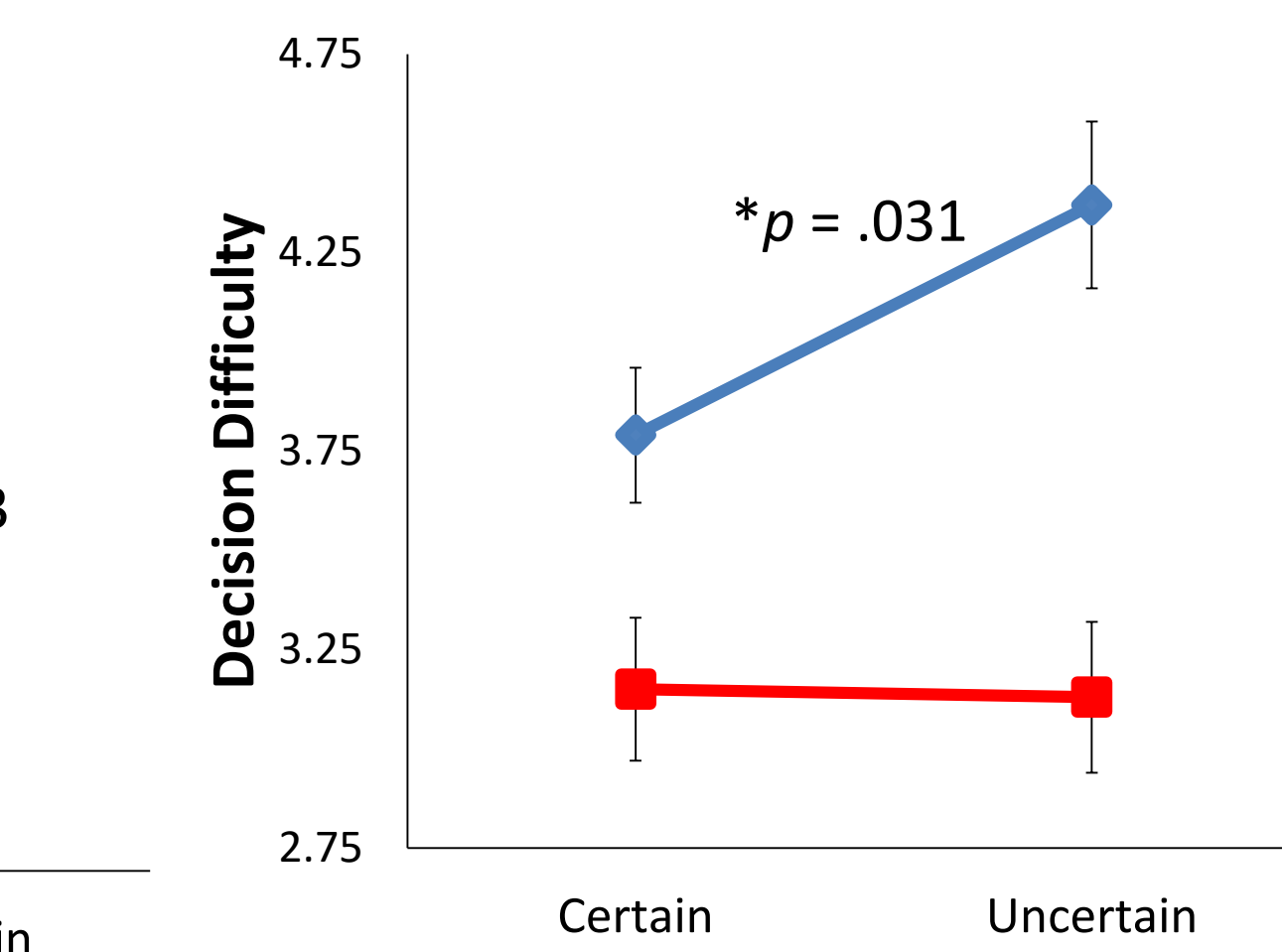
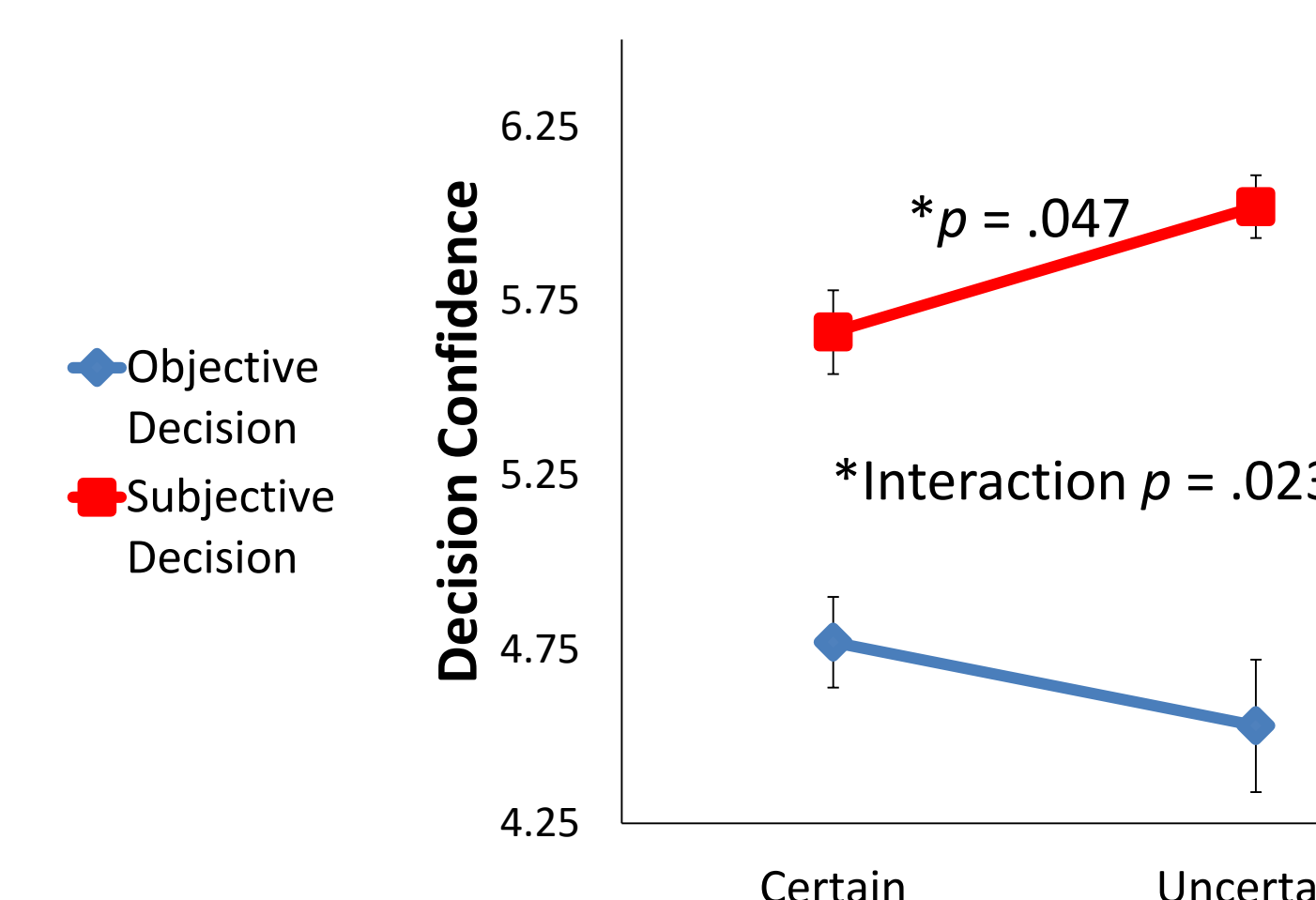
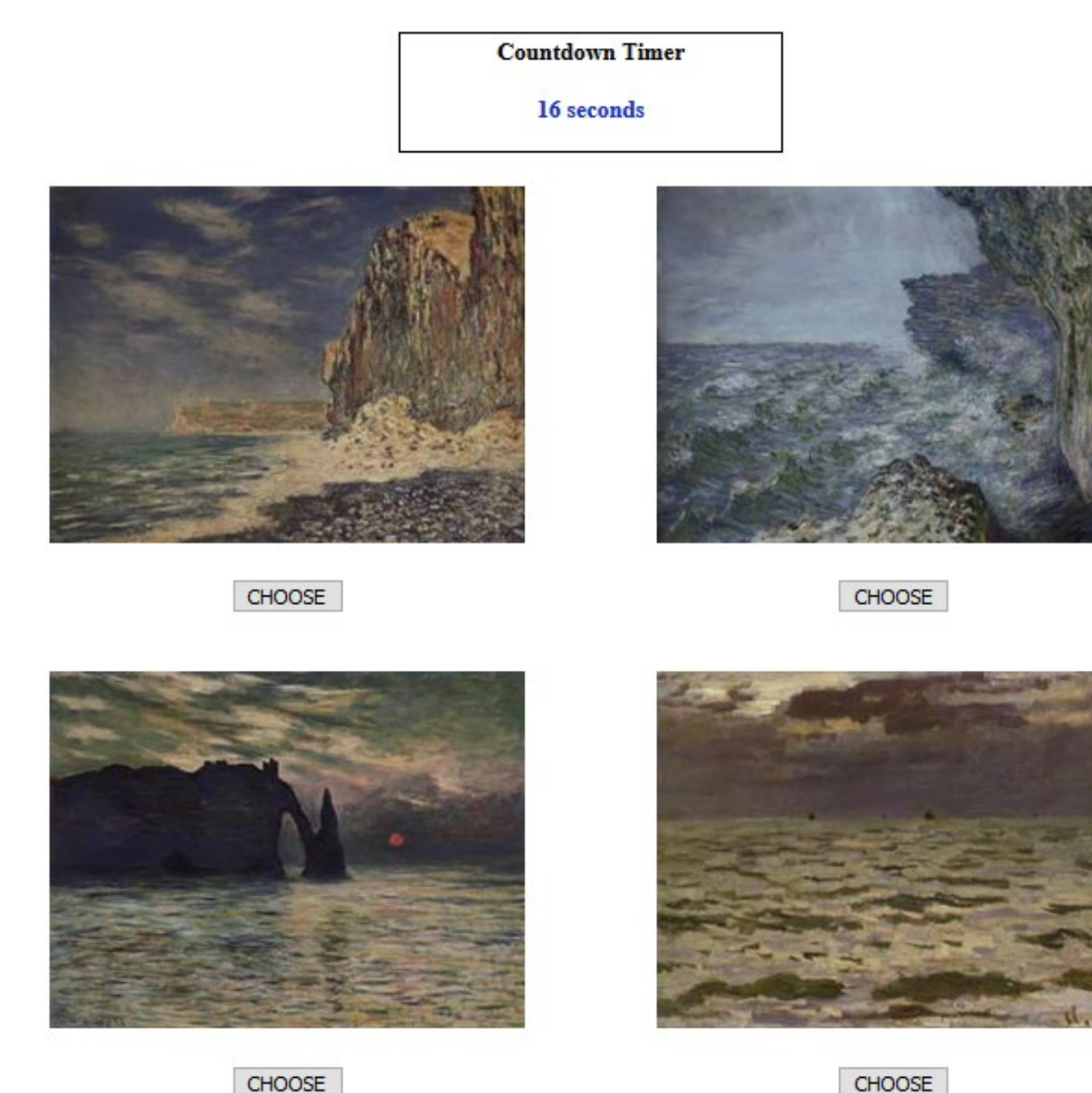
### Study 2

2 (Incidental Uncertainty vs. Certainty)

2 (Subjective Painting Choice vs. Objective Reasoning Decision)

$N = 374$

DV1: Decision Confidence  
DV2: Decision Difficulty



**Greater confidence in the subjective painting decision under uncertainty.**

This effect is not explained by a change in decision difficulty.  
Decision difficulty greater for the reasoning problem under uncertainty  
No evidence of difference in decision difficulty for the subjective decision as a function of uncertainty.

### Conclusions

- This is the first work to show that effects of incidental uncertainty on decision confidence depend on the subjectivity of the focal decision.
  - Confidence in subjective decisions is boosted by incidental uncertainty.
  - Difficulty of subjective decisions is not influenced by incidental uncertainty, implying the effect on confidence is not explained by systematic processing.
- A novel theoretical insight: Incidental uncertainty increases cohesiveness of thoughts generated while making subjective decisions.
  - Preliminary evidence for greater semantic clustering, thought favorability, and decision speed under conditions of uncertainty.

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