

# Does entrepreneurial experience enhance cognitive flexibility ?

Marion Balla<sup>1</sup>, Marine Le Petit<sup>1,2</sup>, Harry Antony<sup>1,2</sup>,  
Frédéric Ooms<sup>2</sup>, Fabienne Collette<sup>1</sup>

<sup>1</sup> University of Liège, GIGA Research, GIGA-CRC Human Imaging Unit, Lab

<sup>2</sup> University of Liège, HEC Liège – Management School, HEC Entrepreneurs

marion.balla@student.uliege.be

## Introduction

**Cognitive flexibility** is essential in entrepreneurship, as entrepreneurs often have to make decisions under conditions of **uncertainty** (1). Cognitive flexibility is defined as “the mental ability to switch between thinking about two different concepts according to the context of a situation” (2). Research suggest that entrepreneurs tend to demonstrate higher cognitive flexibility than managers (3). Therefore, this study aims to determine whether this increased cognitive flexibility is a result of **entrepreneurial experience** or whether entrepreneurs are individuals with inherently higher cognitive flexibility.

**Hypothesis** : Entrepreneurial experience enhances cognitive flexibility, with a moderation effect of perceived uncertainty

## Methods

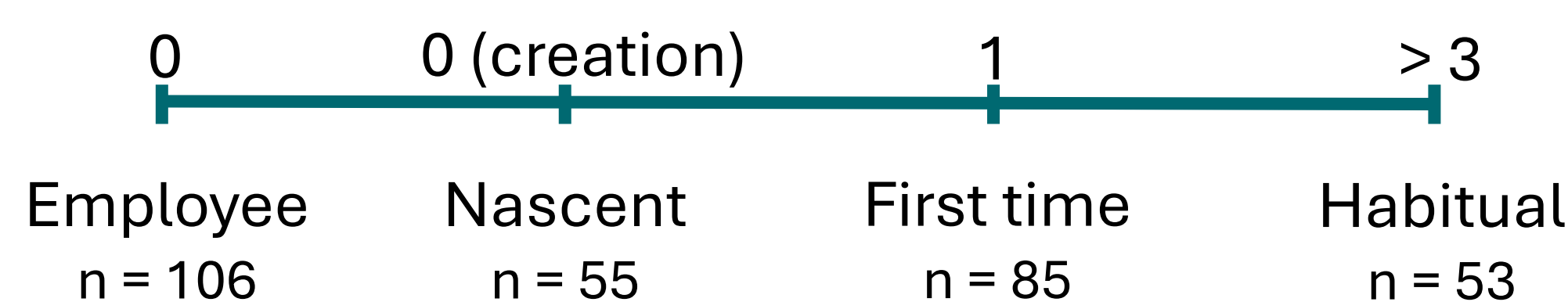
### Scales :

- Cognitive Flexibility Scale (4)
- Perceived uncertainty scale (5)

### Analyses :

1. Effect of entrepreneurial experience (EE) on cognitive flexibility

- ANOVA on 4 groups based on number of ventures launched

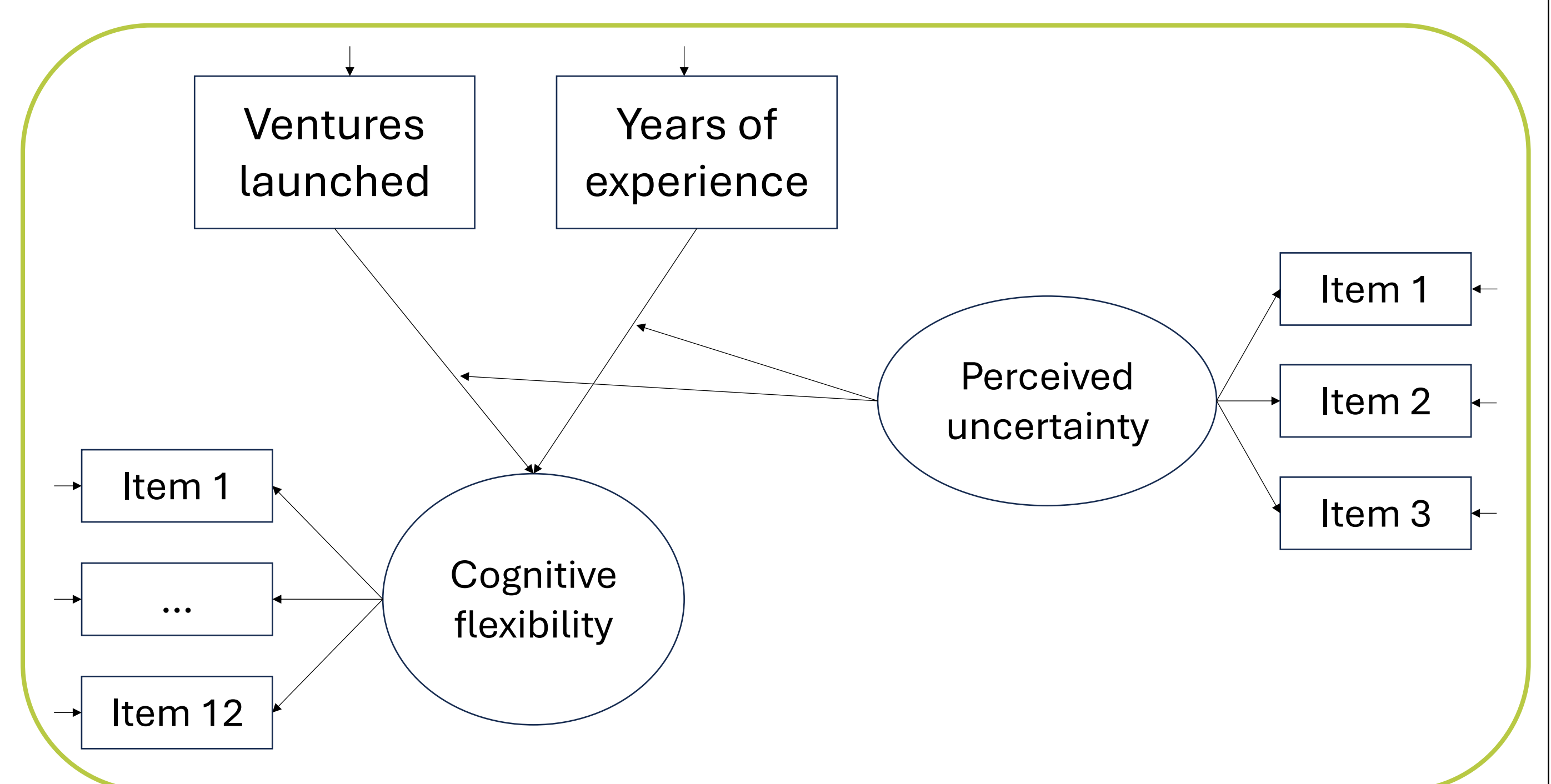


- t test on two groups :

- Employees without experience (N = 106)
- Employees with entrepreneurial, intrapreneurial or startup experience (N = 80)

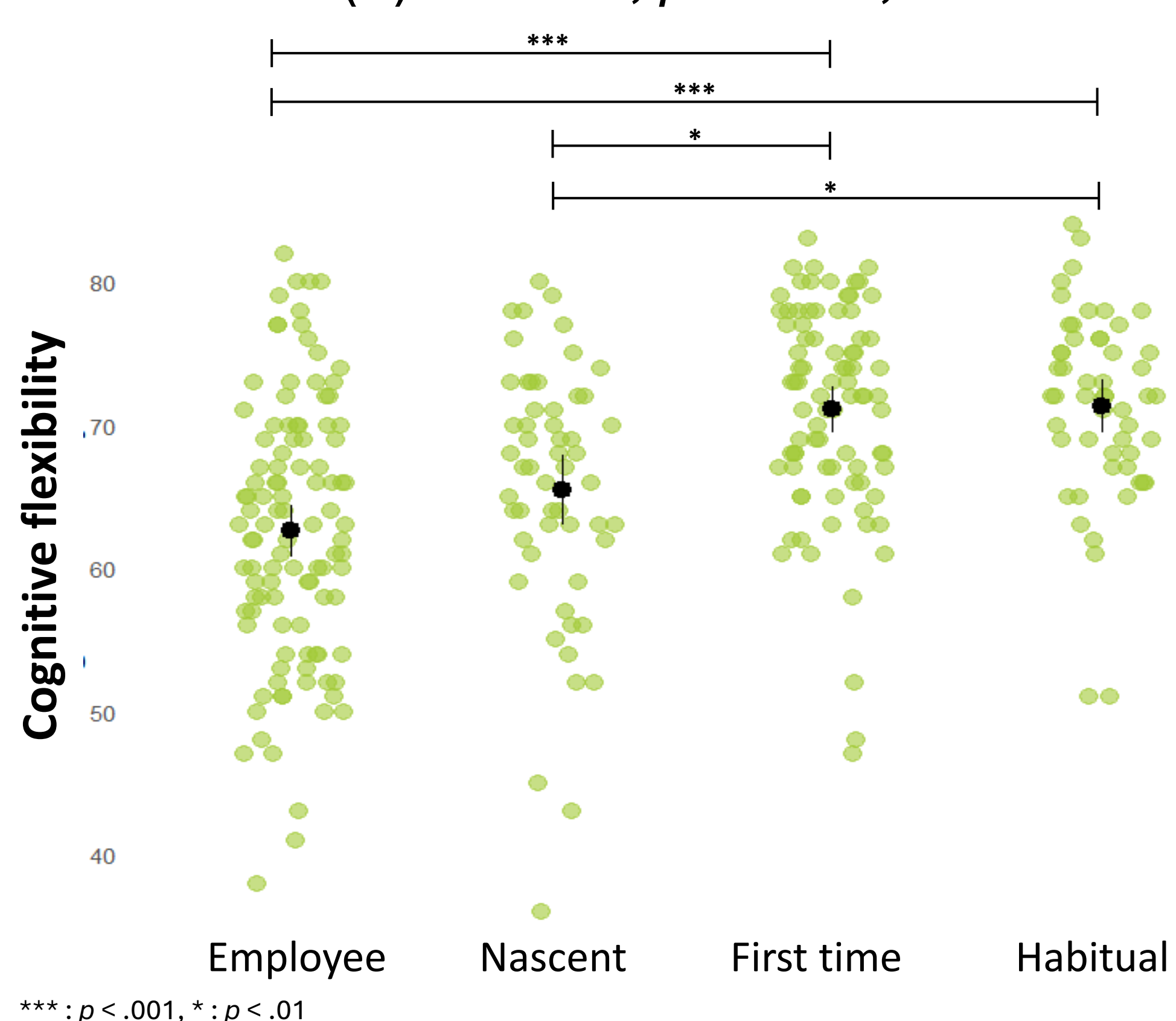
### 2. Influence of perceived uncertainty

- SEM Analysis on theoretical model

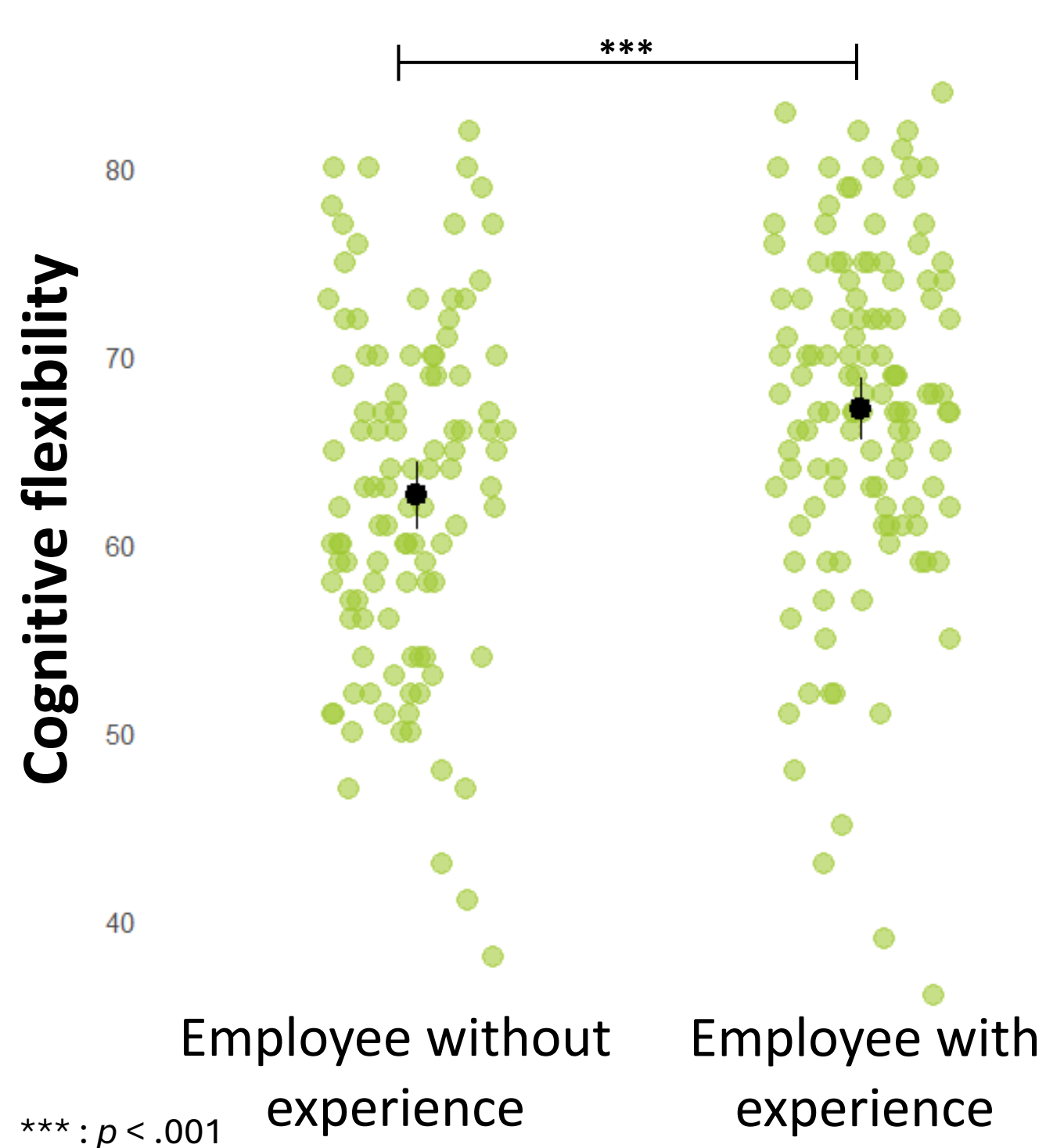


## Results

**ANOVA** :  $H(3) = 57.43, p < .001, \epsilon^2 = 0.124$

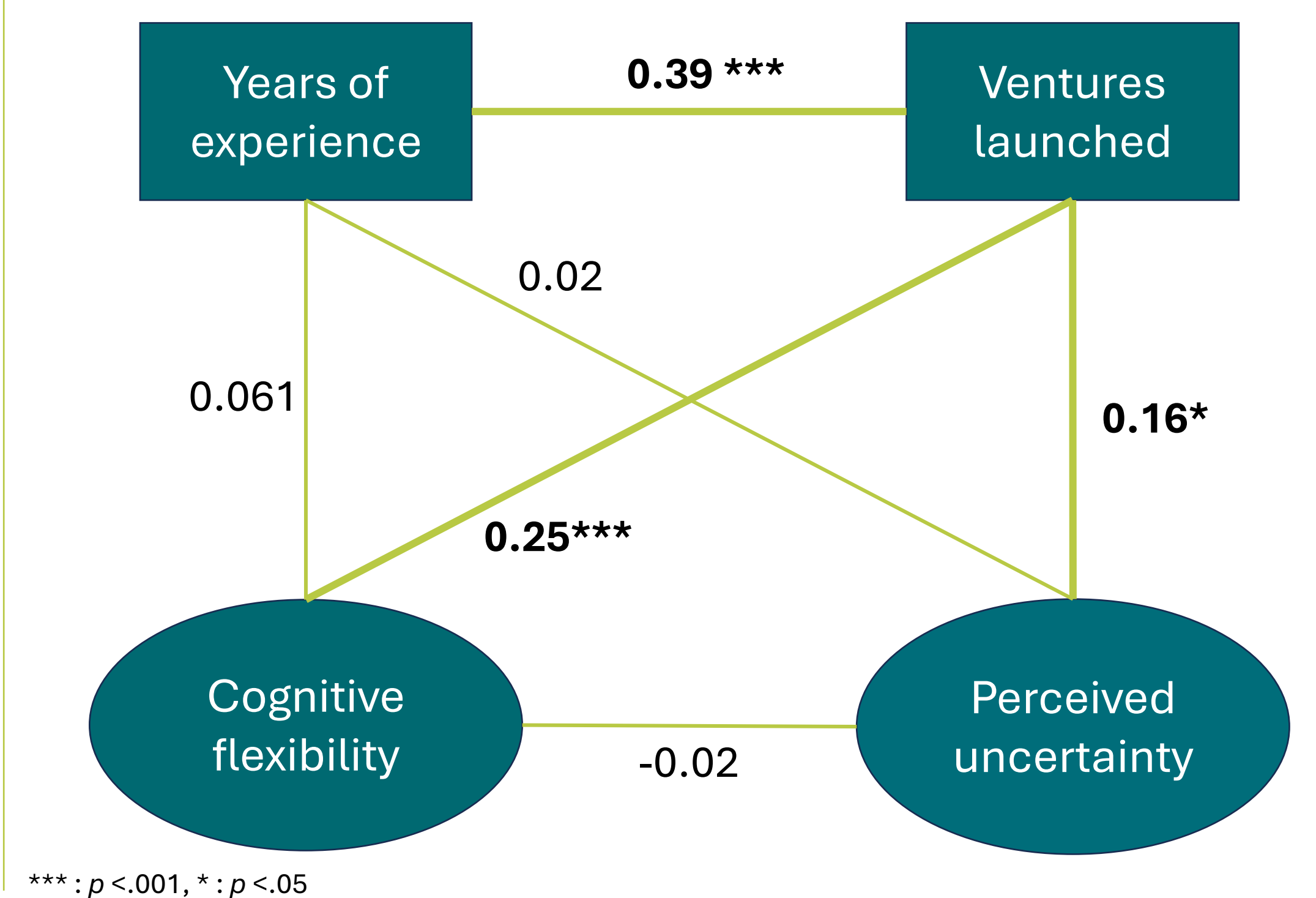


**t test** :  
 $t(184) = -4.429, d = 0.66$



### SEM :

Overall good fit :  $\chi^2(43) = 57.237, p = .072, RMSEA = 0.042, SRMR = 0.067, CFI = 0.974, TLI = 0.983$



## Discussion

Our findings suggest that entrepreneurial experience enhances cognitive flexibility, with the number of ventures launched being more influential than years of experience. An inflection point appears to occur between the initial creation phase and the launch of the first venture. No moderation effect of perceived uncertainty was observed on cognitive flexibility and its link with entrepreneurial experience. Future studies should use behavioral measures and take into account related constructs such as management of uncertainty or decision-making strategies.

## References

1. Packard et al. (2017). Uncertainty types and transitions in the entrepreneurial process. *Organization Science*, 28 (5), 840–856.
2. Uddin (2021). Cognitive and behavioral flexibility: Neural mechanisms and clinical considerations. *Nature Reviews Neuroscience*, 22 (3), 167–179.
3. Ooms, F. (2023). *The entrepreneurial cognitive flexibility, a study at the intersection of neuroscience and entrepreneurship* [Doctoral dissertation, ULiège - University of Liège]
4. Martin & Rubin (1995). A new measure of cognitive flexibility. *Psychological Reports*, 76 (2), 623–626.
5. Frese et al. (2020). An empirical investigation of determinants of effectual and causal decision logics in online and high-tech start-up firms. *Small Business Economics*, 54 (1).