

# Investigating the Effect of Nicknaming on Perceived Control Over Autonomous Products

Jenny L. Zimmermann, Emanuel de Bellis, & Reto Hofstetter



## ABSTRACT

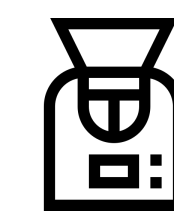
The smarter and more autonomous products become, the more inclined consumers are to call them by a nickname. At the same time, more and more companies are actively encouraging their customers to create a nickname for their autonomous product—for example, by inviting them to assign a nickname in the corresponding mobile application. Despite these observations, we are not aware of any research that investigates the effects of this phenomenon. Across two studies, a large-scale field study with real customers and a subsequent experimental study, we show that **providing a nickname helps regaining control over autonomous products, which increases usage intention**. This effect applies to people with a collaborative personality but **is attenuated when consumers tend to compete with the autonomous product**.

## INTRODUCTION

The advent of artificial intelligence boosts the use of nicknames for today's everyday products. According to the CEO of iRobot, manufacturer of the robotic vacuum cleaner Roomba, an estimated 90% of customers use a nickname for their Roomba (Vincent, 2019). Only recently, scholars have started exploring the effects of nicknaming conventional products, but they do not consider novel technologies such as autonomous products (Lin, Chen, et al., 2020; Stoner, Loken, & Stadler Blank, 2018; Zhang & Patrick, 2018). To fill this gap, we formulate the following overarching research question: **How does nicknaming autonomous products influence consumer perception and use?**

## HYPOTHESES

- H1** The use of nicknames (vs. no nicknames) leads to a higher usage intention of autonomous products.
- H2** The positive effect of using nicknames on usage intention of autonomous products is mediated by feelings of control.
- H3** The positive effect of using nicknames on usage intention of autonomous products is attenuated for consumers who perceive themselves as competitive (vs. collaborative).



## STUDY 1: NEWSLETTER STUDY

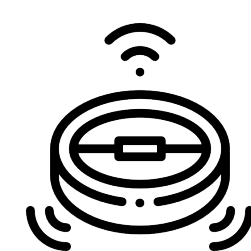
### Method

n=8,860 newsletter subscribers of a distributor of a smart kitchen device participated in the study ( $M_{age}=46$  years; 78 % female).

### Results

- Using a nickname increased with product usage.
- Customers that use a nickname are more satisfied with the product. (\*\*\*) **H1**
- Interaction with the product was described as more cooperative when using a nickname. (\*\*\*)
- Customers using a nickname have a more collaborative (vs. competitive) personality. (\*\*\*) **H3**

Initial evidence for H1 & H3 with actual customers in a large field study  
⚡ Correlational results & self-selection bias



## STUDY 2: CONTROLLED EXPERIMENT

### Method

n=138 MTurkers participated in the study ( $M_{age}=36$  years; 46 % female); between-subjects design with two conditions: nickname vs. no nickname.

### Results

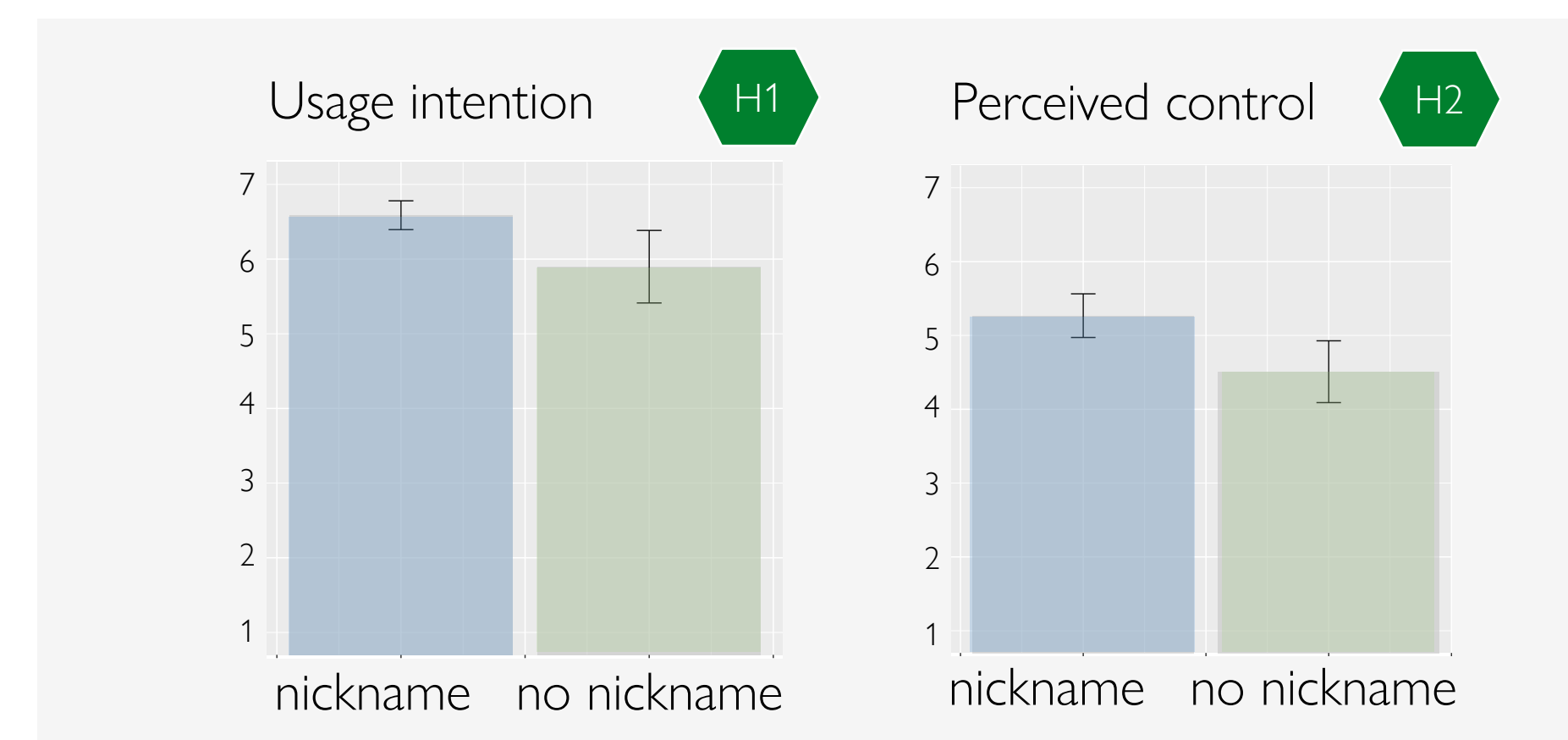


Figure 1: Participants in the nickname condition were more likely to use the robotic vacuum cleaner than participants in the no nickname condition and perceived to have more control over it.

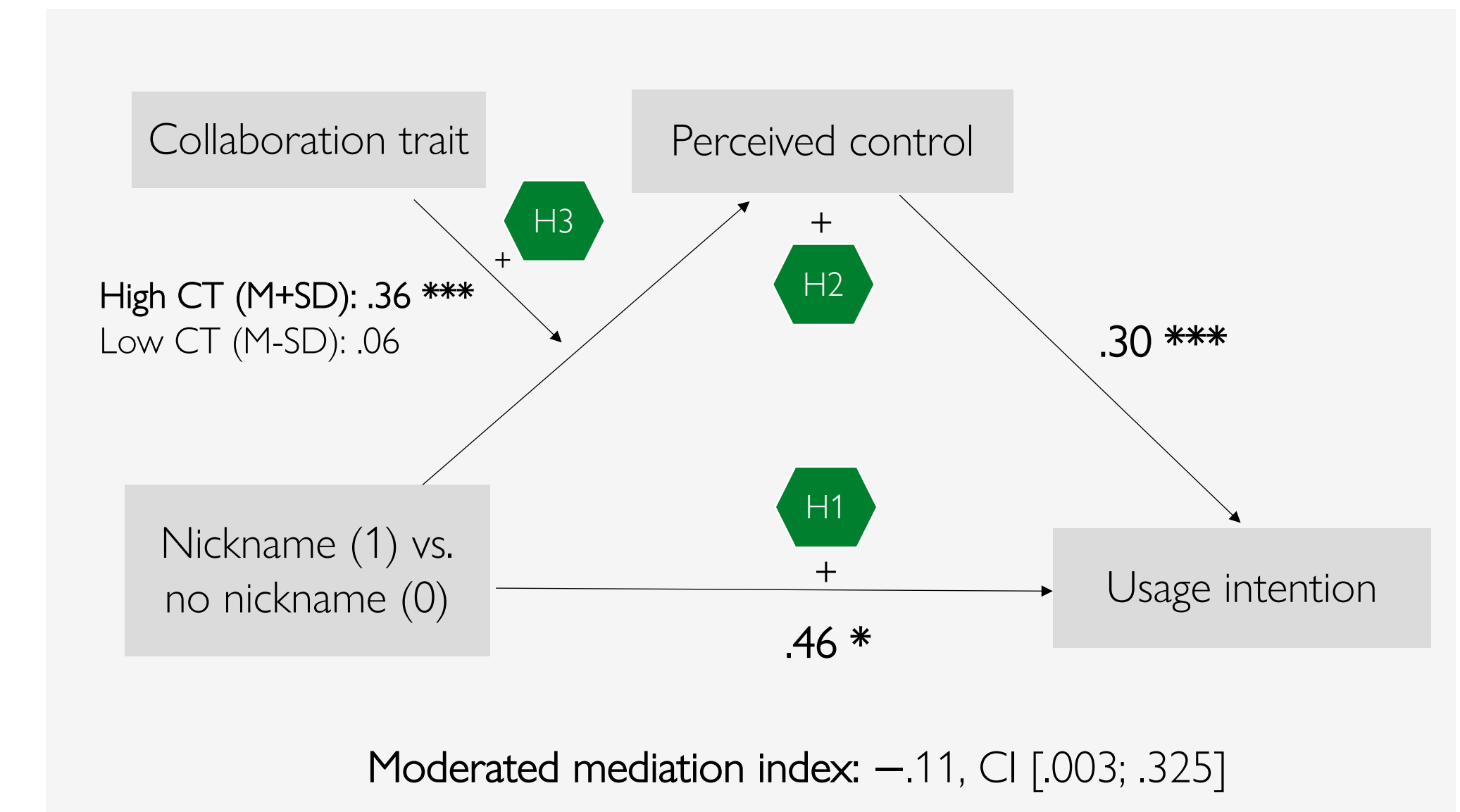
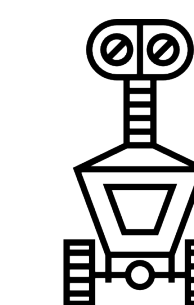


Figure 2: Support for conceptual model: Nicknaming autonomous products affected usage intention via perceived control when the collaboration trait of the person was high.

Causal evidence & other product & other sample

## CONTRIBUTION

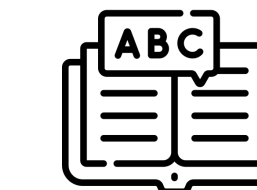
### Contribution to academic literature



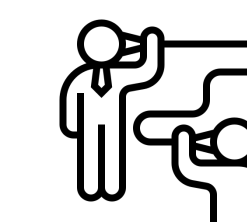
autonomous products



anthropomorphism



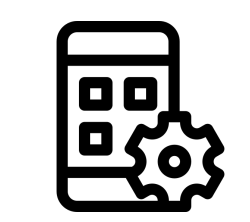
naming



communication



targeting



product/mobile app features

### Managerial relevance

## REFERENCES

- Lin, Yanjing, and Haiquan Chen (2020), "The impact of product nickname on consumer product evaluation," *American Journal of Industrial and Business Management*, 10(02), 402.
  - Stoner, Jennifer L., Barbara Loken, and Ashley Stadler Blank (2018), "The name game: How naming products increases psychological ownership and subsequent consumer evaluations," *Journal of Consumer Psychology*, 28(1), 130–37.
  - Vincent, James (2018), "iRobot CEO says the future of the smart home is going to mean making friends with robots," *The Verge*, [www.theverge.com/2018/4/19/17256074/roomba-irobot-ceo-colin-angle](http://www.theverge.com/2018/4/19/17256074/roomba-irobot-ceo-colin-angle).
  - Zhang, Zhe, and Vanessa M. Patrick (2018), "Call me rollie! The role of brand nicknames in shaping consumer-brand relationships," *Journal of the Association for Consumer Research*, 3(2), 147-162.
- Icons made by Freepik from [www.flaticon.com](http://www.flaticon.com).

## CONTACT

Zoom: <https://bit.ly/3qdvTq4>  
Email: [jennylena.zimmermann@unisg.ch](mailto:jennylena.zimmermann@unisg.ch)

Note: \* $p < .05$ , \*\*\* $p < .001$