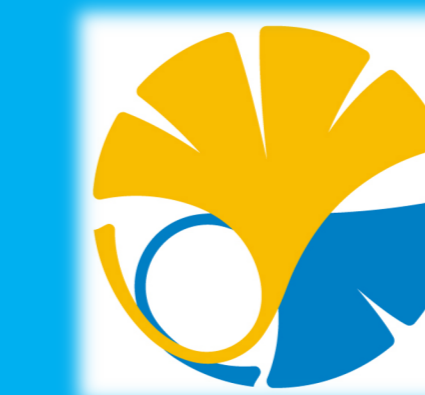


# Do you trust an impassive doctor?



## Abstract

Verbal probabilities affect decision making in risk communication, but effects of coexistent facial expressions and trust are unclear. We asked participants how motivated they were to recommend medical treatment in the face of directionally different verbal probabilities (positive or negative) and facial expressions (neutral, happy, or sad), and measured their trust. As an exploratory study, two models were tested where trust is (1) a mediator or (2) another independent variable. Results showed that participants recommended the treatment more with positive (vs negative) phrases, neutral (vs negative) facial expressions, or higher trust. The second model showed a better fit.

## Introduction

How much do you recommend this new medical treatment when a doctor says, “it’s possible that it’ll be effective?”



## Verbal Probability Expressions (VPE)

(Teigen & Brun 1995, 1999)

Speaker’s Direction	Listener’s Focus	Listener’s Reaction
Positive	occurrence	affirmative
Negative	unoccurrence	negative

## Congruence between Verbal & Non-verbal

- When they are incongruent, their impact was **words** (7%) < tone + **facial expression** (38+55%) (Mehrabian, 1971)
- Participants **underrated** both positive and negative VPE with a **sad face**. (Gu et al., 2020)

## Qs on VPE’s Direction & Facial Expressions

- How do people make decision (= recommend the treatment) when exposed to an **(in)congruent pair of VPE and facial expressions**?
- Why is that? – **Trust in the advice**

## Methods

### Online Survey

#### \* Design

- 2 VPE Direction (within)
  - 3 Positive, 3 Negative
- 3 Face (between)
  - Neutral, Happy, Sad

#### \* Question

- How much do you **recommend** this treatment to a friend when the speaker says, “...?”  
e.g., **it is possible** that it will be effective.  
**it is unlikely** that it will be effective.
- How much do you **trust** the advice?  
How **accurate** do you think the advice is?

### Statistical Analysis

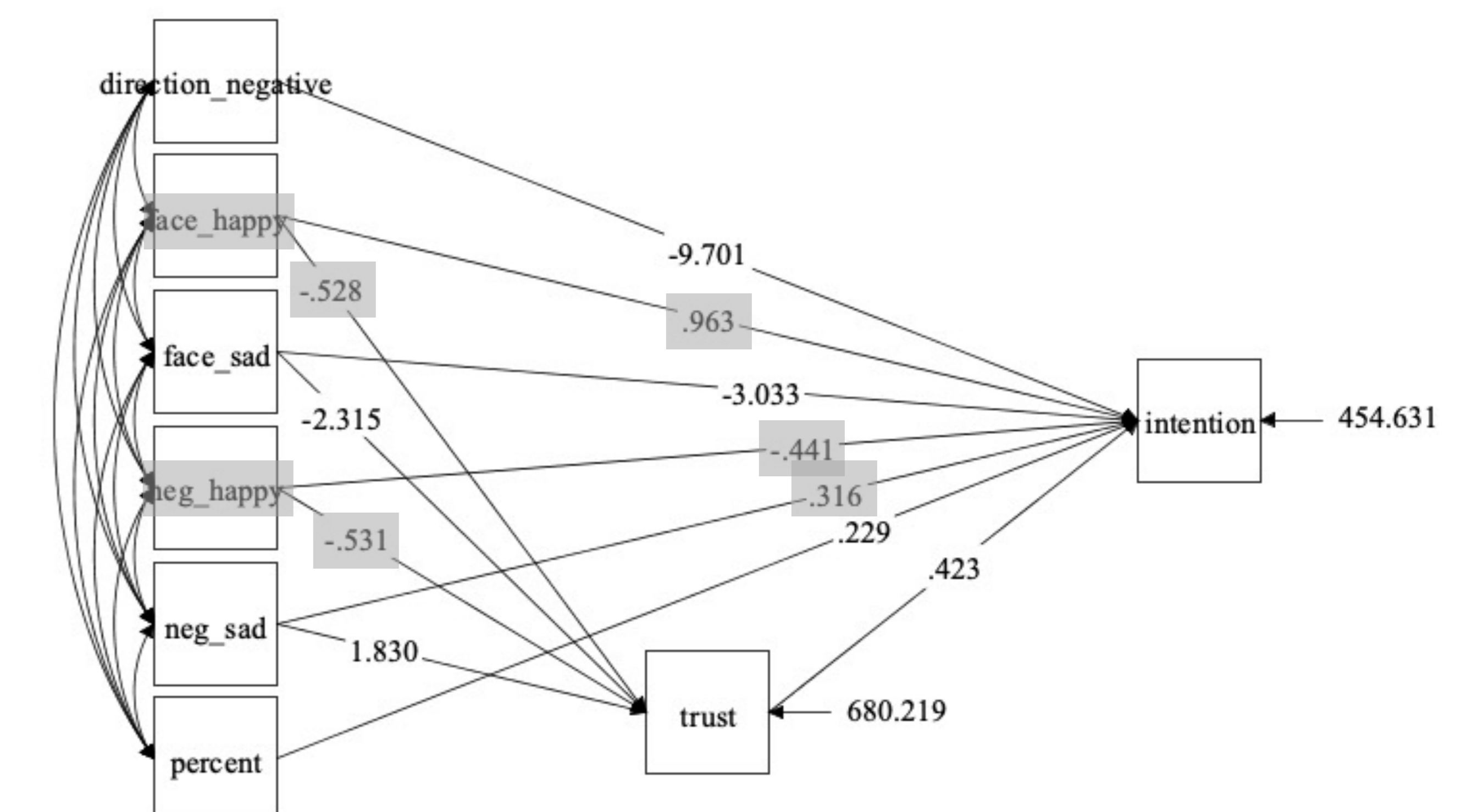
Model comparison with SEM

Valuables	Model 1	Model 2
VPE direction	ID	ID
Face	ID	ID
VPE direction X Face	ID	ID
Trust	MD	ID
Interpreted Percentage without Face	CV	CV
Intention	DV	DV

## Results & Discussion

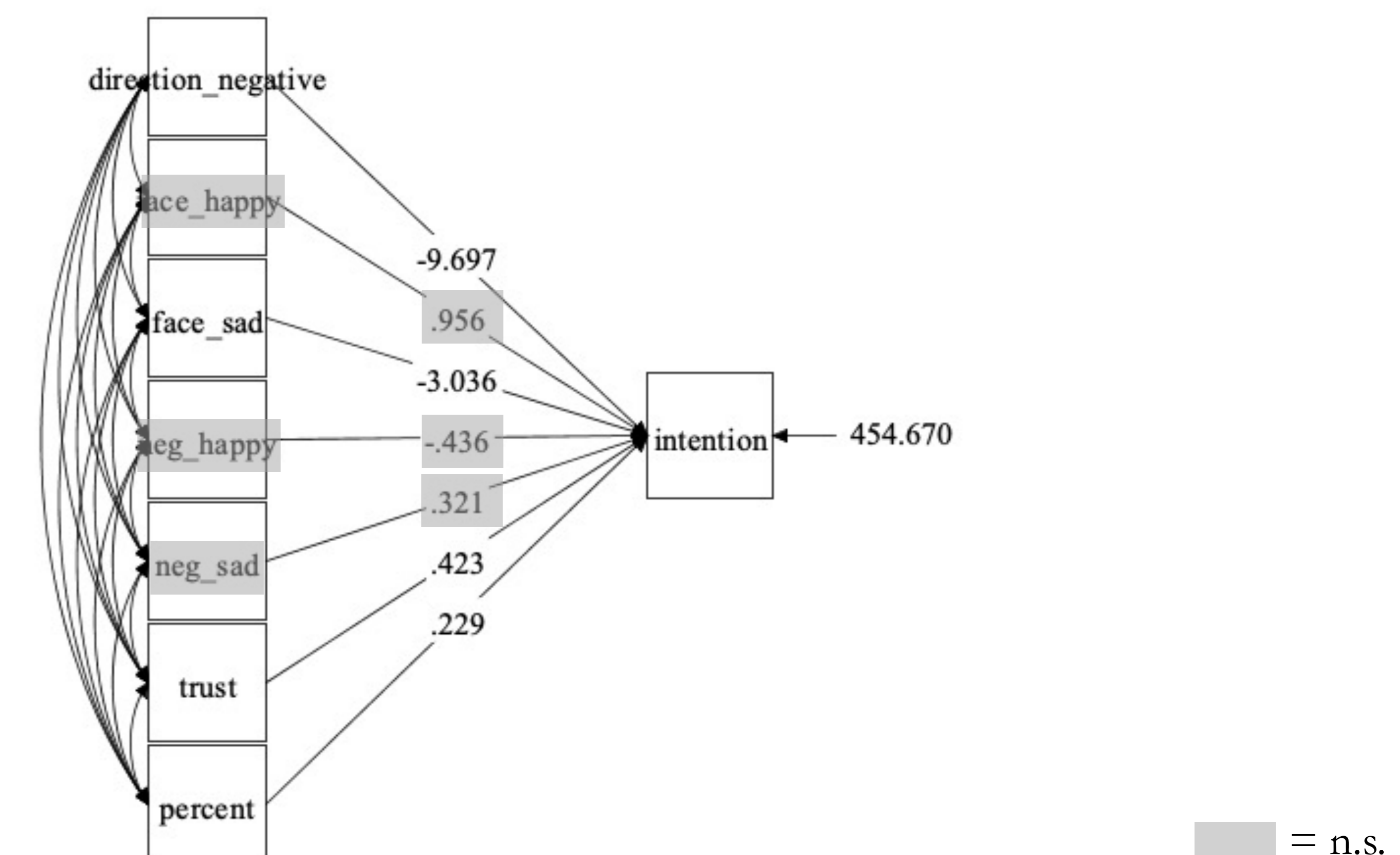
### Model 1

AIC: 33112 / BIC: 33194



### Model 2

AIC: 16195 / BIC: 16244



- Participants recommended the treatment **more** with **positive** (vs **negative**) VPE or **neutral** (vs **sad**) faces.
- Participants with **higher trust** recommended it **more**.
- Model 2** showed a better fit than Model 1.  
→ Effects of VPE’s direction and the speaker’s facial expressions on participants’ intention may NOT be mediated by trust.