

# Moral in the Face of Disgust

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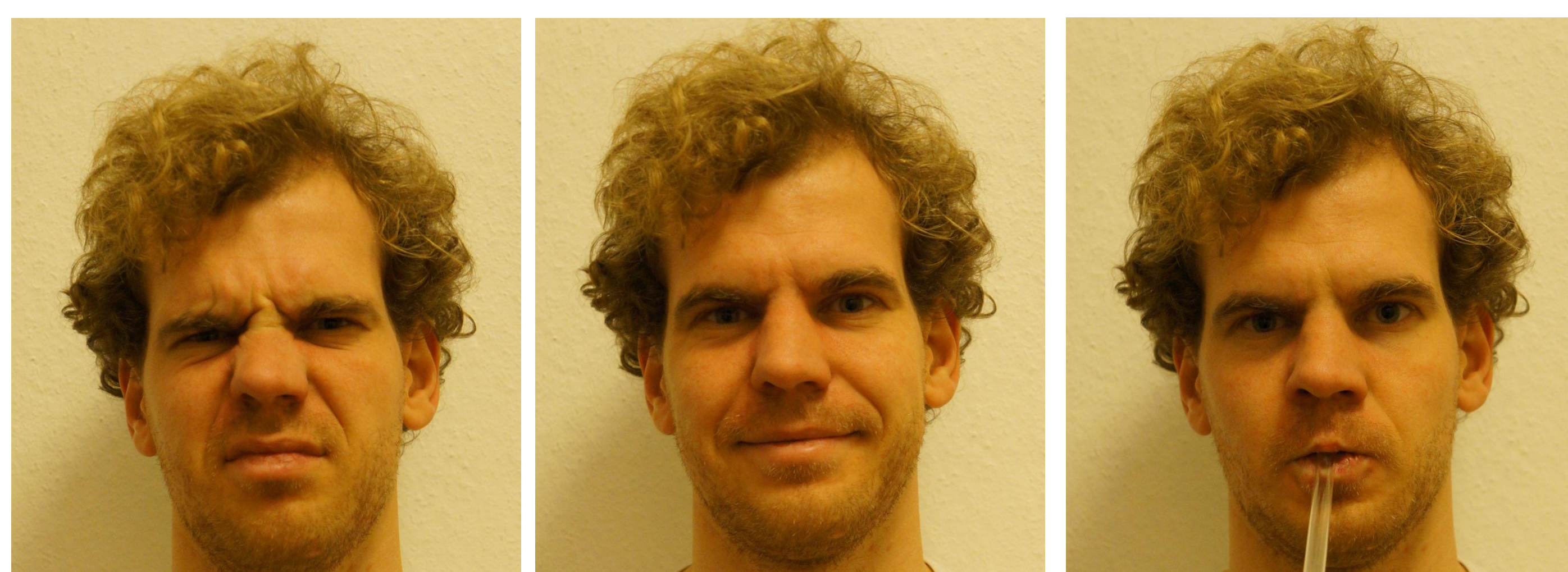
## Introduction

Many affective or emotional processes are embodied, i.e. they depend on and can be modulated by bodily activity such as facial expressions and posture (cf. facial feedback hypothesis e.g. [1]). Facial expressions can also influence cognitive processes, e.g. memory and categorization.

Moral judgment – classically considered a higher-order cognitive process – has long been linked to emotions, in particular disgust ([2],[3],[4]). Since emotional processes can be modulated via the voluntary manipulation of one's facial muscles, by extension, manipulation of facial expressions should also have an impact on moral judgments. To test this hypothesis, we investigated the influence of emotional facial expressions on moral and truth judgment. Moreover, the relation between different ethical stances and moral judgments as well as the adherence of the embodiment effect to these stances were examined.

## Methods

36 Osnabrück University undergraduates participated in the experiment for course credit. Participants completed a moral- and truth-judgment task in which they had to rate 30 moral dilemmas and 30 truth statements (presented in 15 blocks of 4 trials) while making one of three different facial expressions (disgusted, happy, or holding a straw between the lips [5], fig.1). The expressions were trained before the experiment but not specified by name. Participants were told that they would be filmed in order to investigate the interference between facial muscle control and a distracting cognitive task, cf. [4]. After finishing the task participants completed the German Ethics Position Questionnaire [6].



make 1 out of 3 different facial expressions

1 out of 30  
moral dilemmas

read

1 out of 30 true or  
false statements

judge

"Was meinen Sie?  
Das Verhalten der Person ist ..."

"Was meinen Sie?  
Die Aussage ist ..."

"falsch"  
(wrong)



"richtig"  
(right)

Figure 1: Experimental design.

The above schema shows one experimental trial. Participants were instructed to make a certain facial expression for the duration of an entire block. Each participant had to judge every dilemma/statement once. The assignment of dilemmas/statements to expressions was balanced across participants.

## Preliminary Results

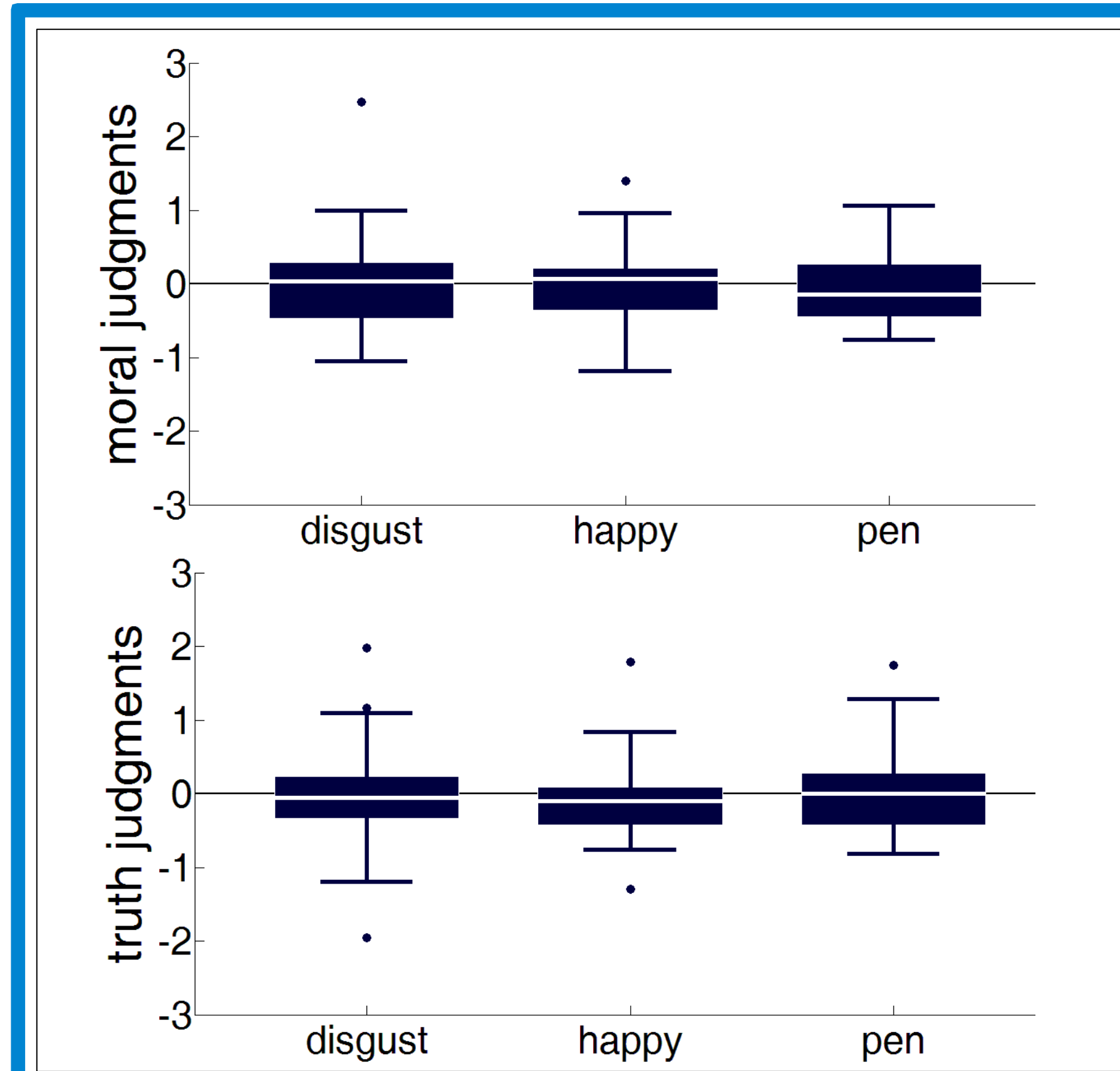


Figure 2: Mean moral and truth judgments.

The box plots show the mean values for moral and truth judgments in the different conditions. To eliminate the variance introduced by the difference between the dilemmas/statements, an average across subjects was calculated for each judgment. This average value was then subtracted from participants' individual ratings.

11 participants were excluded as they guessed the aim of the experimental manipulation. Thus the data of 25 participants (16 female, age:  $M=19.8$ ,  $SD=0.9$ ) were taken into account for analysis.

To determine the effects of the facial expression manipulation, we conducted repeated-measures ANOVAs on moral (1) and truth (2) judgments with sex as a between-subjects factor (1 and 2) and idealism and relativism scores as covariates (1).

Neither ANOVA showed a significant effect of expression on moral or truth judgment or any interactions between expression and idealism, relativism, or sex.

Correlation analyses showed a positive correlation between relativism and moral judgment,  $r(23) = .59$ ,  $p < .05$ , and a negative correlation between idealism and moral judgment,  $r(23) = -.43$ ,  $p < .05$ .

## Discussion

**A significant influence of facial expression on moral or truth judgment was not found. Possible explanations:**

- Embodiment of disgust and happiness via facial expression has no causal or modulatory role in moral or truth judgment.
- The effect might be too subtle to detect with the small sample size, i.e. additional participants are needed.
- The effect might differ in strength with respect to different moral dilemma types; this possibility must be examined further.

**There is a correlation between ethical position (as measured by the Ethics Position Questionnaire) and moral judgment.**

→ Effects of bodily expression of emotion on moral judgment should be investigated in relation to ethical positions.

## References

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