

The Many Smiles Collaboration

A Multi-Lab Adversarial Test of the Facial Feedback Hypothesis

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SUMMARY

- The facial feedback hypothesis suggests that our facial expressions influence our emotional experience.
- A large replication effort consistently failed to replicate a seminal demonstration of this hypothesis (Wagenmakers et al., 2016), but meta-analysis suggests the effect is real (Coles et al., 2019).
- Consequently, a large adversarial team of researchers—some advocates of the facial feedback hypothesis, some critics, and some without strong belief—collaborated to specify the best ways to test this hypothesis.
- Pilot testing (n = 206) suggested that smiling could both magnify ongoing feelings of happiness and initiate feelings of happiness in otherwise neutral scenarios.
- Next, 22 labs from 20 countries will perform more extensive tests to examine whether there is a replicable facial feedback effect. (Registered Report at NHB)

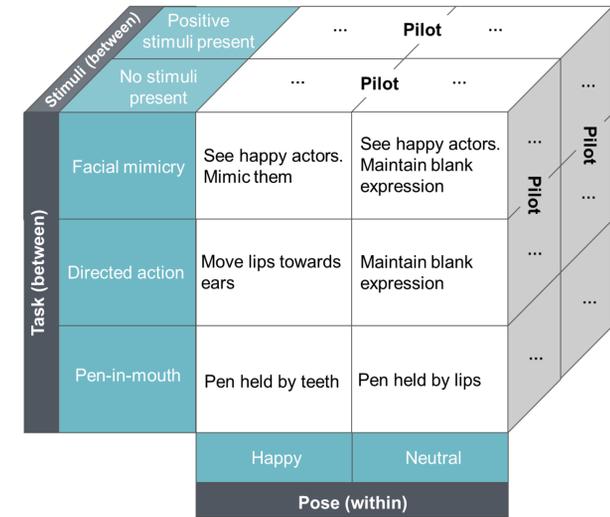
METHODOLOGY

PILOT

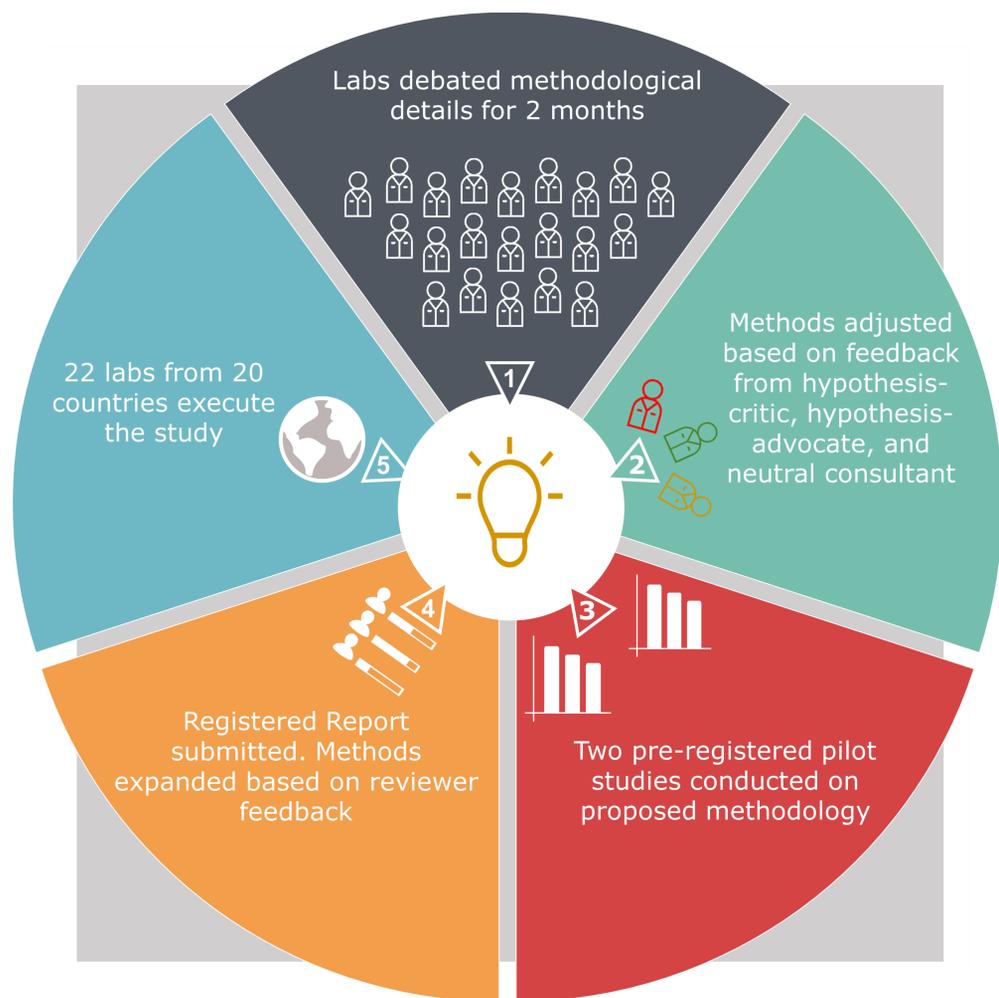
- n = 206
- 2 (pose) x 2 (task) x 2 (stimuli present) mixed design
- Linear mixed-effects modeling and Wilcoxon tests

MAIN STUDY

- Projected n > 1584
- 2 (pose) x 3 (task) x 2 (stimuli present) mixed design
- Linear mixed effects modeling, Wilcoxon tests, and Bayesian linear mixed-effects modeling

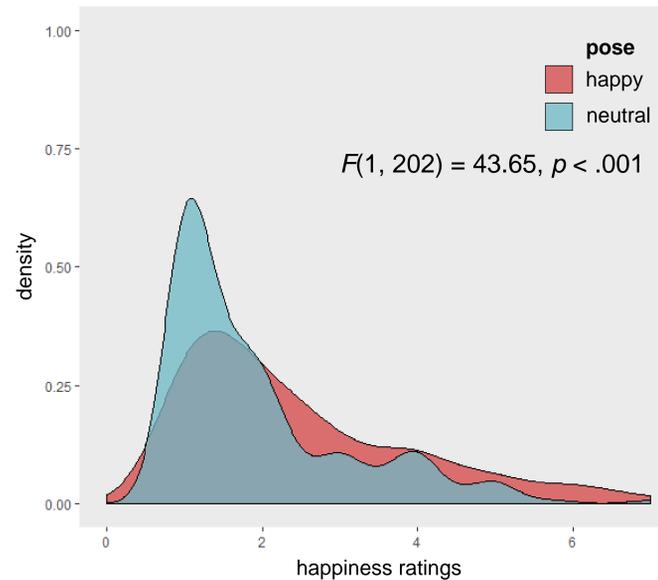


COLLABORATIVE MODEL

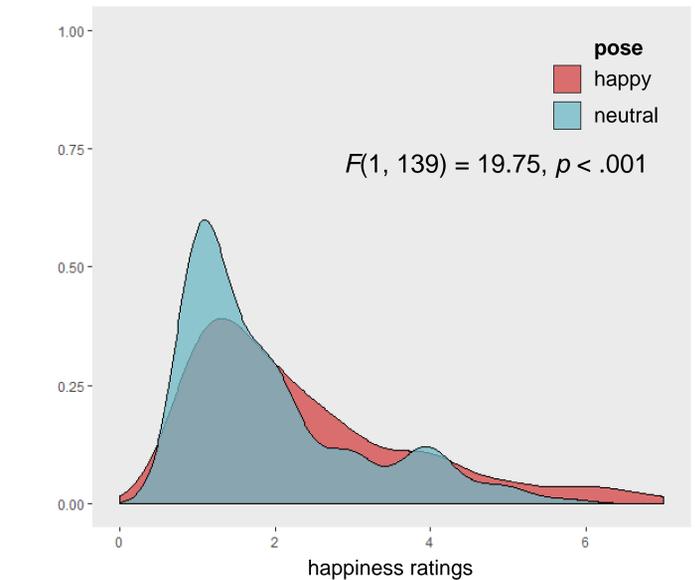


PILOT RESULTS (n = 206)

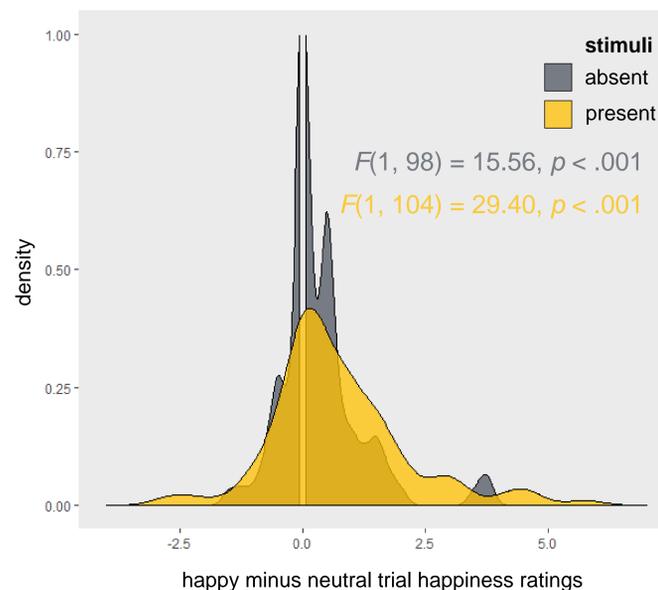
1 Participants reported more happiness after posing happy vs. neutral expressions



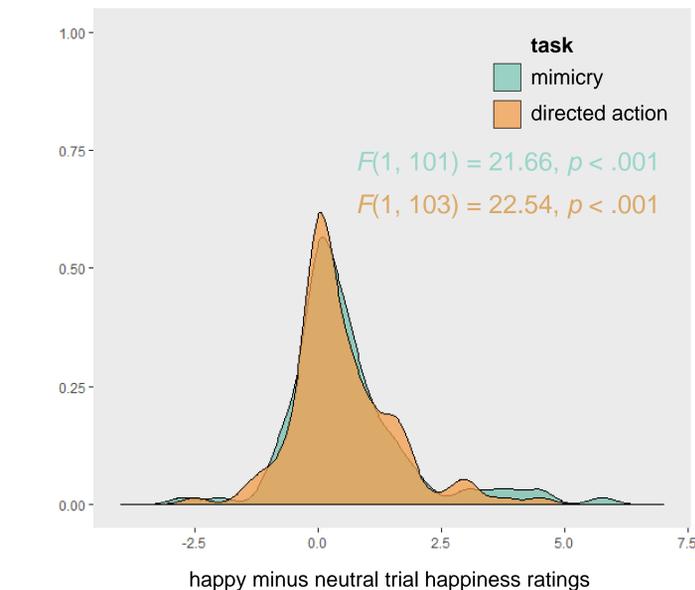
2 Effect robust when analyses limited to participants who were completely unaware of the hypothesis



3 Facial poses both initiated happiness in neutral scenarios and modulated ongoing happiness.



4 Effects detected in task that led to less (directed action) and more (mimicry) natural expressions



OUTSTANDING DISAGREEMENTS IDENTIFIED

- 1 Does posing happy vs. neutral expressions cause people to feel happier?
- 2 Are facial feedback effects eliminated when controlling for awareness of the experimental hypothesis?
- 3 Can facial poses initiate emotional feelings in neutral scenarios or can they only modulate ongoing emotional feelings?
- 4 Do happy facial poses only influence feelings of happiness if they resemble a natural expression?