Devaluation Effects in Food-Specific Response Inhibition Training: An Independent Conceptual Replication

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Research background

Research has demonstrated that training individuals to stop their motor responses towards specific foods in a **go/no-go paradigm** has potential as an intervention for dietary behaviour change.

Studies have found that training is often associated with reduced food evaluations, altered food choices, decreased food intake and even greater weight loss (Veling et al. 2017; Jones et al. 2018).

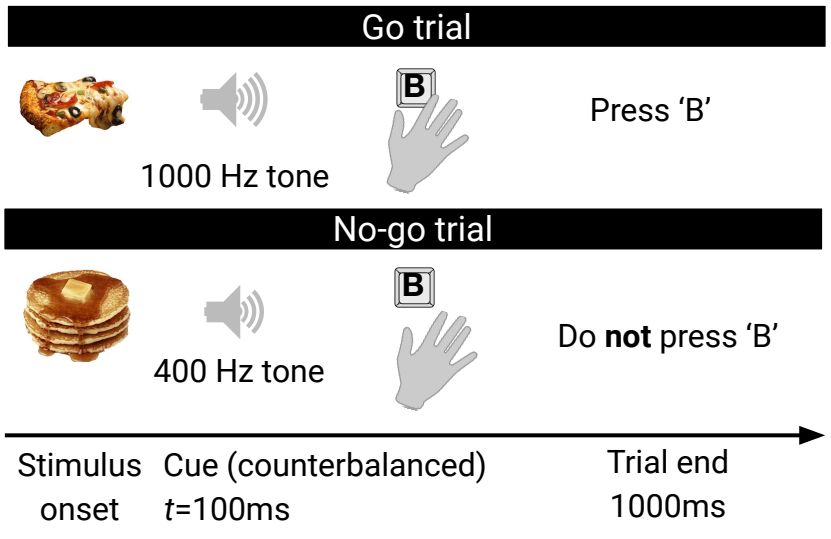
Studies using go/no-go training (cf. Chen et al. 2016) have found that **evaluations** of foods that are paired with stopping (**'no-go' foods**) are **reduced after training** relative to the ratings of 'go' foods and foods that are never presented during training ('untrained').

The aim of this study was to replicate this **devaluation effect** in a **high-powered** and **more representative** UK sample in terms of gender and ethnic/racial background. We also **did not limit eligibility** based on dieting status or BMI.

Study protocol

In the **pre-training phase**, eligible participants rated pictures of energy-dense foods in a self-paced evaluation task and stimuli for each training condition were selected (go, no-go, untrained).

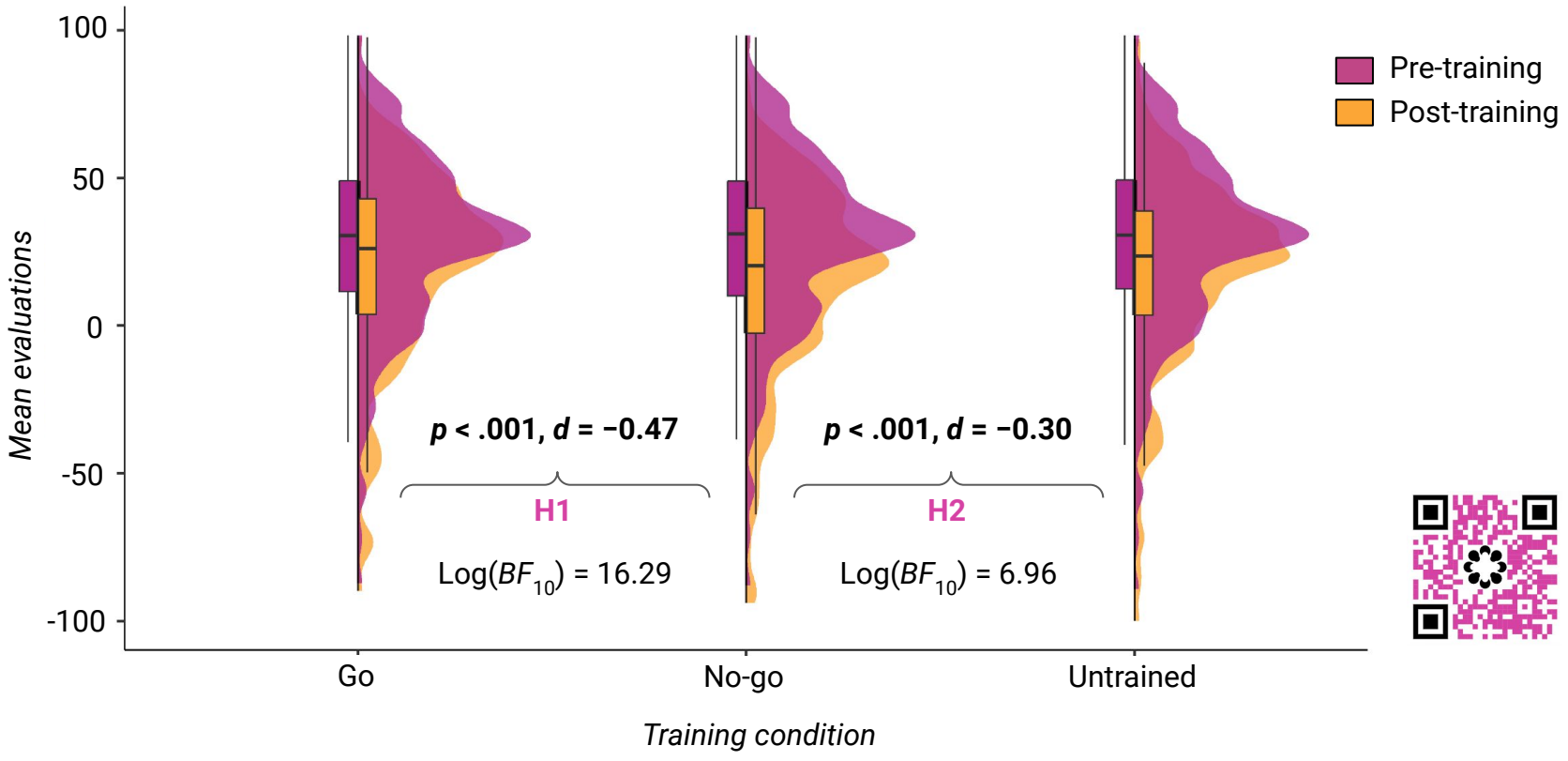
In the **training phase**, participants completed six blocks of go/no-go training and in the **post-training phase** they repeated the evaluation task.



Key findings

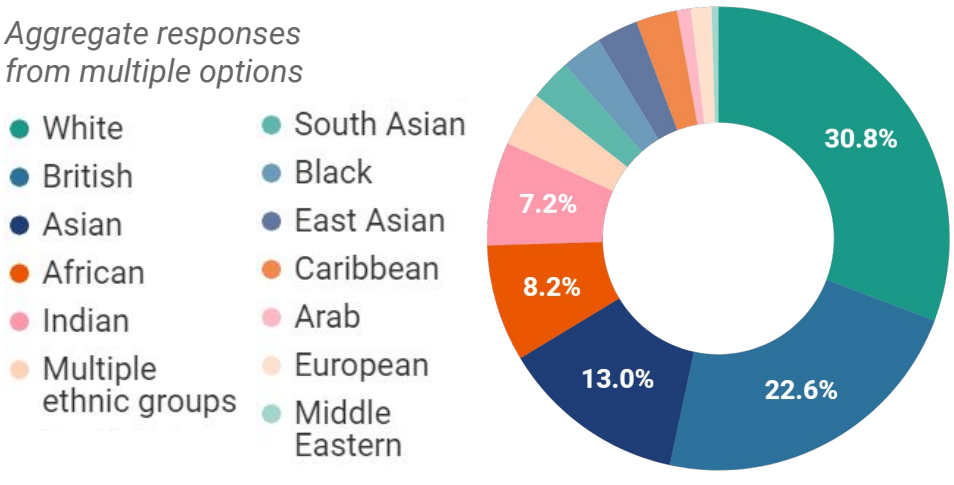
In line with our **preregistered hypotheses**, devaluation effects were observed in our online sample (**N = 173**).

The change in evaluations for no-go foods was **lower** compared to both ***go*** (H1) and ***untrained*** foods (H2).



Participants' average BMI was 24.09 kg/m^2 (*SD* = 5.31) and only 15.03% reported that they were following a diet. Most participants identified as female (75.15%), while 23.70% identified as male and 1.16% as non-binary. Demographic data further suggest that online recruitment may have **increased the diversity of our sample** compared to student-only studies in terms of both **ethnicity** and **age** (*M* = 28.43, *SD* = 13.07).

However, future research should also account for potential **socioeconomic** and **cultural** differences in training effects and examine how these relate to dietary behaviour change in real-world settings.



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References

Chen et al. (2016) *J. Exp. Psychol. 145*(12)

Jones et al. (2018) *Appetite 124*

Veling et al. (2017) *Curr. Addict. Rep. 4*(1)