



# Colloquium lecture of Dr. Birgit Stürmer

## On cognitive regulation of food perception: An ERP study

In a series of three experiments we investigated cognitive regulations strategies concerning the appetite value of food items.

To this end we presented healthy food stimuli – like fruits and vegetables – under two instructions:

(1) Under the reappraisal instruction we ask participants to imagine each item as very appetizing with very good smell and taste.

(2) Under the attention instruction participants were asked to watch each item with concentration. The instruction conditions were compared to passive viewing of items as control condition.

In experiment 1 healthy food items were presented in the instruction and control conditions. Here, food items watched under the reappraisal instruction did not differ from those watched under the attention instruction; neither in appetite ratings nor in ERPs.

In experiment 2 healthy food items in the instruction conditions were compared to faces in the control condition. Reappraised foods items were rated higher than attentively watched foods on scales of craving and palatability. In ERPs, the P300 component was enhanced in both instruction conditions compared to passive viewing control. The subsequent LPP amplitude, however, differed significantly only under reappraise instruction.

In experiment 3 healthy food items were investigated under both instructions in the context of junk food items as control condition. Here, appetite rating did not differ between instruction conditions whereas ERPs differed between both instruction conditions and as well between the respective control conditions. To sum up present results, we observed specific effects of the reappraisal instruction only in experiment 2 where non-food items were stimuli of the control condition. We, therefore, conclude that reappraisal of specific food items seems to be possible in the context of non-food items but not among other food items. Benefits and limits of cognitive reappraisal for behavioral changes in nutrition will be discuss.

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This lecture takes place at Liebiggasse 5, 1010 Wien, Lecture Hall G 2<sup>nd</sup> floor and will be streamed Thursday, June 9, 2022; 3 pm