**Restrained eating predicts increased autonomic reactivity during food exposure in young women**

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*Background*: Restrained eaters attempt to cognitively control their eating behaviour. Research suggests that heart rate variability (HRV) reflects self-regulatory strength and effort. The present study investigated the impact of dietary restraint on HRV reactivity during an experimental manipulation of self-regulatory effort.

*Methods*: Heart rate was monitored continuously in 57 female participants during rest and exposure to either tempting brownies (high self-regulatory effort) or less tempting carrot sticks (low self-regulatory effort). Indices of HRV in the time and frequency domain were computed offline.

*Findings*: Restrained eaters showed higher levels of tonic HRV as compared to unrestrained eaters. Restrained eating interacted with the experimental manipulation to predict changes in HRV. When confronted with tempting brownies, restrained eating was related to increases in vagal-cardiac activation. This relationship was not observed during exposure to less attractive carrots.

*Discussion*: The observed pattern of results suggests that tempting food cues can trigger recruitment of self-regulatory processes in restrained eaters.

**Category**: Self-Regulation, Including Illness Perception

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