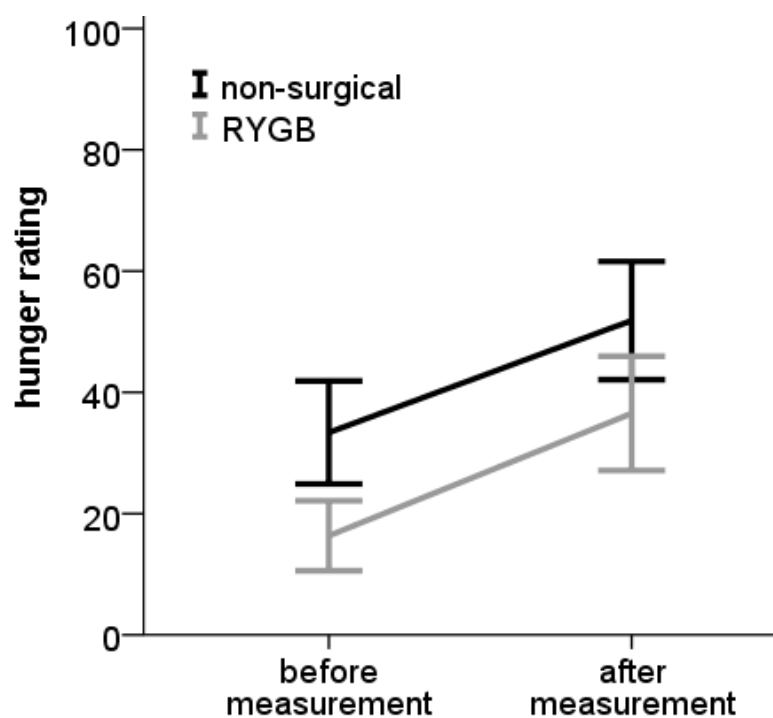


## SUPPLEMENTARY DATA

**Supplementary Figure S1.** Time course of the subjective hunger ratings before and after the fMRI measurement for the non-surgical and the RYGB group. The time effect (increase in hunger) was significant with  $p=0.019$ . The groups were not significantly different ( $p=0.115$ ), nor was the interaction between the factor group and time ( $p=0.92$ ). Error bars represent standard error of mean.



SUPPLEMENTARY DATA

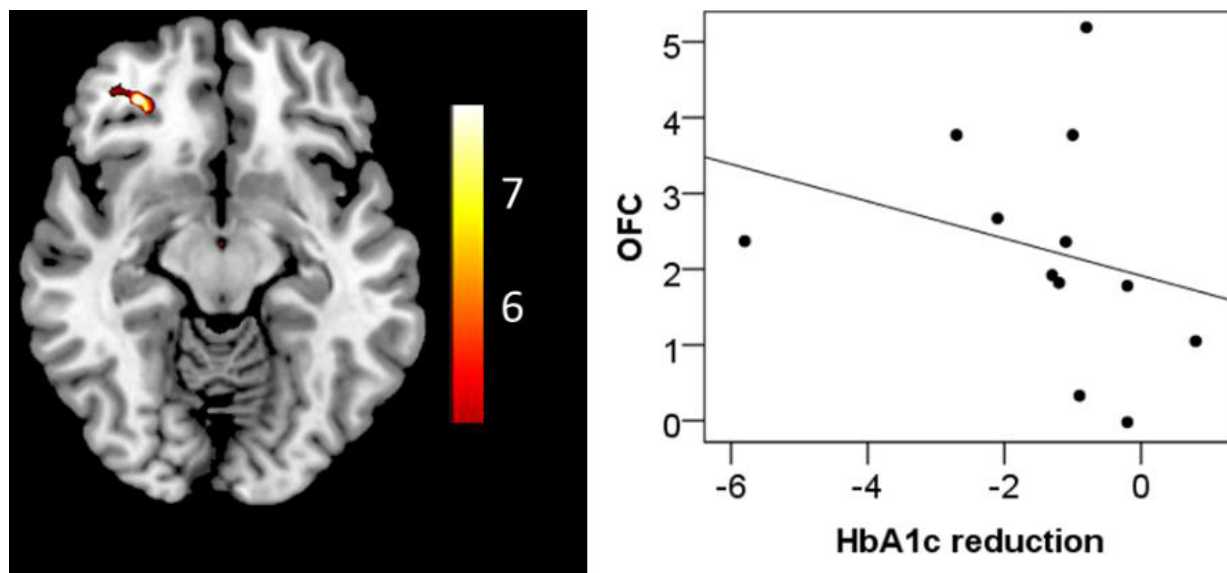
Supplementary Table S1.

	Non-surgical	RYGB	p-value
<b>Three Factor Eating Questionnaire</b>			
cognitive restraint	11.33 ± 0.99	7.83 ± 0.75	0.010*
disinhibition	9.50 ± 0.53	10.17 ± 0.65	0.435
experienced hunger	5.17 ± 0.51	5.33 ± 0.56	0.826
<b>Power of Food Scale</b>			
available food	3.18 ± 0.38	2.43 ± 0.32	0.149
present food	3.18 ± 0.36	2.33 ± 0.29	0.080
tasted food	3.53 ± 0.30	2.57 ± 0.29	0.030*
total PFS score	3.31 ± 0.32	2.45 ± 0.24	0.043*
<b>Beck's depression Inventory</b>			
BDI	11.25 ± 2.67	7.00 ± 2.23	0.235

\* significantly different with  $p < 0.05$

## SUPPLEMENTARY DATA

**Supplementary Figure S2.** Exploratory correlation analyses of the HbA1c change (reduction) with the orbitofrontal cortex (OFC). Thus, the greater the HbA1c reduction (and therefore the better the glycemic control), the higher is the activity in the orbitofrontal cortex, a region comprising the secondary gustatory cortex. The correlation is significant with  $p < 0.05$  small volume family-wise error-corrected (mask: middle OFC) as a function of an uncorrected primary uncorrected threshold level of  $p < 0.01$ .



## SUPPLEMENTARY DATA

**Supplementary Figure S3.** Depicted is higher activation in the somatosensory cortex during the Wanting compared to the Liking task for both groups combined. Results are significant with  $p(\text{FWE}) < 0.05$  family wise error corrected on cluster level after an initial uncorrected threshold of  $p < 0.001$ . The color bar represents T values. Bar plots exhibit parameter estimates and error bars represent standard error of mean.

