

**Appendix 1** to Förster K, Enneking V, Dohm K, et al. Brain structural correlates of alexithymia in patients with major depressive disorder. *J Psychiatry Neurosci* 2019.

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### **Supplementary analysis 1**

Method:

To explore whether the interaction of alexithymia and group on gray matter volume of the FFG was dependent on depression status, we conducted two alexithymia x group ANCOVAs using only remitted MDD patients compared to HC (model 3) and using only acute patients compared to HC (model 4).

Additionally, we investigated patients and controls with a TAS-score below 61, to verify that the distinct relationship of alexithymia and gray matter volume in MDD patients and controls is not solely driven by individuals (foremost MDD patients) that score high in alexithymia (model 5).

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Results:

Model 3: Limiting the investigation to remitted patients ( $N = 47$ ) compared to HC, the interaction remained significant ( $F(3,89) = 15.457; p < .001$ , HC:  $r = .328$ , MDD:  $r = -.433$ ).

Model 4: Limiting the investigation to acute patients compared to HC, the interaction on the mean cluster value showed a trend towards significance ( $F(3,58) = 3.725; p = .058$ , HC:  $r = .328$ , MDD:  $r = -.449$ ).

Model 5: Additionally, investigating patients ( $N = 35$ ) and controls ( $N = 46$ ) with a TAS-20 score below a clinically relevant score of 61, the interaction within the FFG cluster remained significant ( $F(3,77) = 11.983, p = .001$ ; HC:  $r = .328$ , MDD  $r = -.408$ ).

### **Supplementary analysis 2**

The squared alexithymia scores were significantly associated with the extracted cluster value of the FFG ( $r = .277, t(108) = 2.985, p = .004$ ). We conducted a separate ANCOVA integrating the group x alexithymia interaction using a quadratic function of the TAS-score as an additional covariate. The interaction did not remain significant ( $F(2,105) = 0.108, p = .898$ ), while the quadratic function of the TAS was still significantly associated with the cluster value of the FFG ( $F(1,105) = 7.415, p = .008$ ).