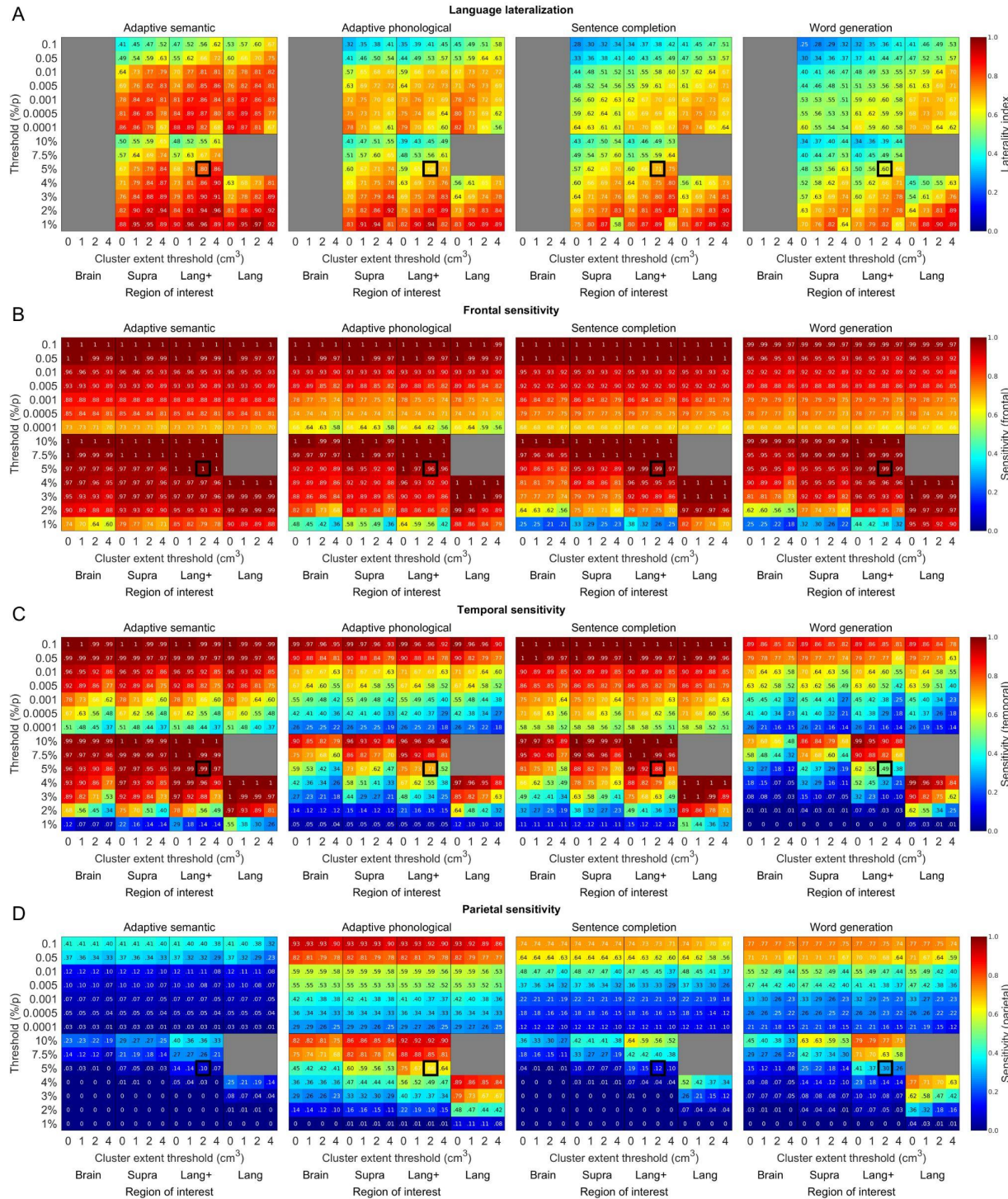


# Online supplemental data



**Supplemental Figure 1.** Impact of parameter sets. The parameters used in the main analyses were chosen *a priori* based on previous studies,<sup>13,15</sup> and are indicated with black rectangles. Note that there are tradeoffs between capacity to reveal lateralization, and sensitivity.

(A) Language lateralization as a function of paradigm, region of interest (whole brain; supratentorial; extensive bilateral ROI described in text; language ROIs described in text and homotopic counterparts), voxelwise threshold (several absolute and relative thresholds are shown), and minimum cluster extent. LI measures were flipped for right-lateralized patients. (B) Sensitivity for detecting an inferior frontal activation of at least  $4 \text{ cm}^3$  in the dominant hemisphere, as a function of the same variables. (C) Sensitivity for detecting a posterior temporal activation of at least  $4 \text{ cm}^3$  in the dominant hemisphere. (D) Sensitivity for detecting an anterior parietal activation of at least  $4 \text{ cm}^3$  in the dominant hemisphere.