**Laterality patterns for Gestalts of language**

Recent behavioural data point to distinct cognitive patterns for conjunctions (e.g., “gorilla and castor”, “fork and razor”) and for disjunctions (e.g., “gorilla or castor”, “fork or razor”), which are processed holistically as a single Gestalt and analytically as two Gestalts respectively (Dumitru & Joergensen 2016). We hypothesised that fMRI activation patterns should be lateralised accordingly to the right and to the left hemisphere. For the main task, participants listened to conjunctions and disjunctions linking animal or tool names. For the first control task, participants listened to animal or tool names separated by a pause (e.g., “gorilla - castor”, “fork – razor”). For the second control task, participants listened to conjunctions and disjunctions words (e.g., “and”, “or”). The volunteers were 22 right-handed adults scanned on a 3T Siemens Magnetom Prisma. We ran whole-brain univariate analyses using SPM12 (http://www.fil.ion.ucl.ac.uk/spm) after smoothing the warped functional images with a 4-mm Gaussian kernel. Brain responses were estimated at each voxel using GLM with event-related regressors: “and” and “or” for the main and second control tasks, and “animals” or “tools” for the main and first control tasks. Distractors in each task were modelled as separate regressors. We explored two key contrasts: “and>or” and “or>and” after exploring the average values of structure-function relationships for probabilistic cytoarchitectonic maps in MNI space using version 1.5 of the *SPM Anatomy Toolbox* (Eickhoff et al. 2005). The Laterality Index LI (*Left-Right/Left+Right*) for the “and>or” contrast was strongly negative in the main and second control tasks (-0.353 and -0.493). The LI for the “or>and” contrast was strongly positive in the same tasks (0.154 and 0.362). The LIs for “animals” and “tools” (-0.005 and -0.047) were very weak in the first control task, thus confirming our hypothesis. Results are discussed in terms of connectivity and structural complexity.