



Figure 4. Localizing the sites of processing bottlenecks in human cerebral cortex. Activation foci in fMRI studies of the PRP, MOT, VSTM, and AB on lateral views of an inflated brain. Also included are the approximated extents of a lesion and an MEG study of the AB (light- and dark-green shaded regions, respectively). Several foci from AB and PRP studies cluster in lateral frontal cortex (black ellipse). By contrast, the postero-lateral parietal cortex is primarily dotted with perceptual activations (AB, MOT, VSTM), whereas a dorsal premotor cortex area (white ellipse) includes PRP and load studies, but no AB. Red-, white-, and gold-colored circles refer to PRP, VSTM/MOT, and AB fMRI studies respectively, with each study source and fMRI contrast of interest listed in the key below. Localization of the activated foci was primarily based on Talairach coordinates. The VSTM studies only include those that examined capacity limits of VSTM storage for non-linguistic visual material. Scattered activation foci in lateral temporal and anterior cingulate cortex are not shown. As a comparison, we also show the activation focus (blue circle, 16) for subitizing, the capacity-limited process of object enumeration thought to be 'pre-attentive' [90].