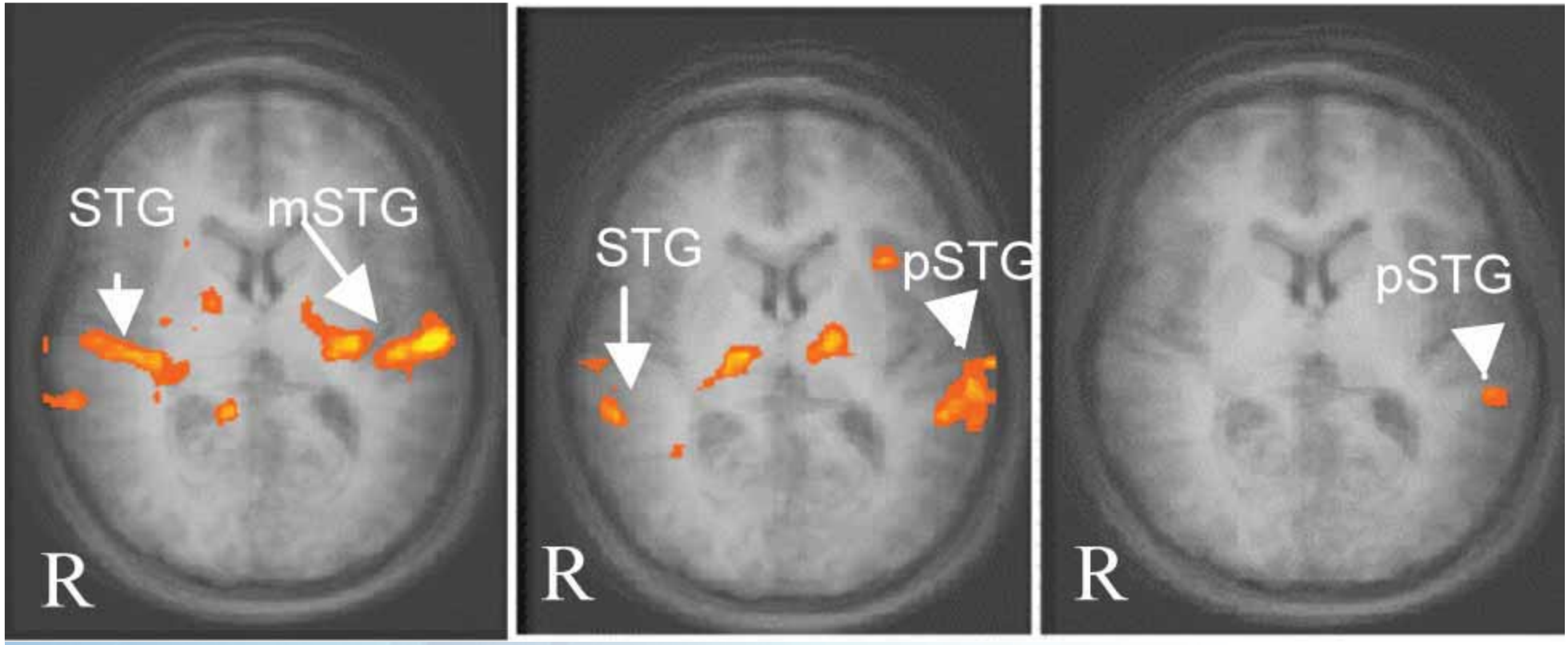

Figure 1. An fMRI study contrasts different listening conditions to highlight the importance of the brain's activation of the superior temporal gyrus (STG) as the level of noise increases. Left panel: The signal-to-noise (SNR) +20 vs. quiet condition showed greater activation of the bilateral STG/auditory cortex compared to the middle panel. Middle panel: The SNR -5 vs. quiet condition shows increased left lateralization and left posterior STG (pSTG) activation. Right panel: Provides a direct comparison of the two noise conditions, SNR -5 vs. +20 dB, and shows greater left pSTG activation with louder noise (SNR -5).

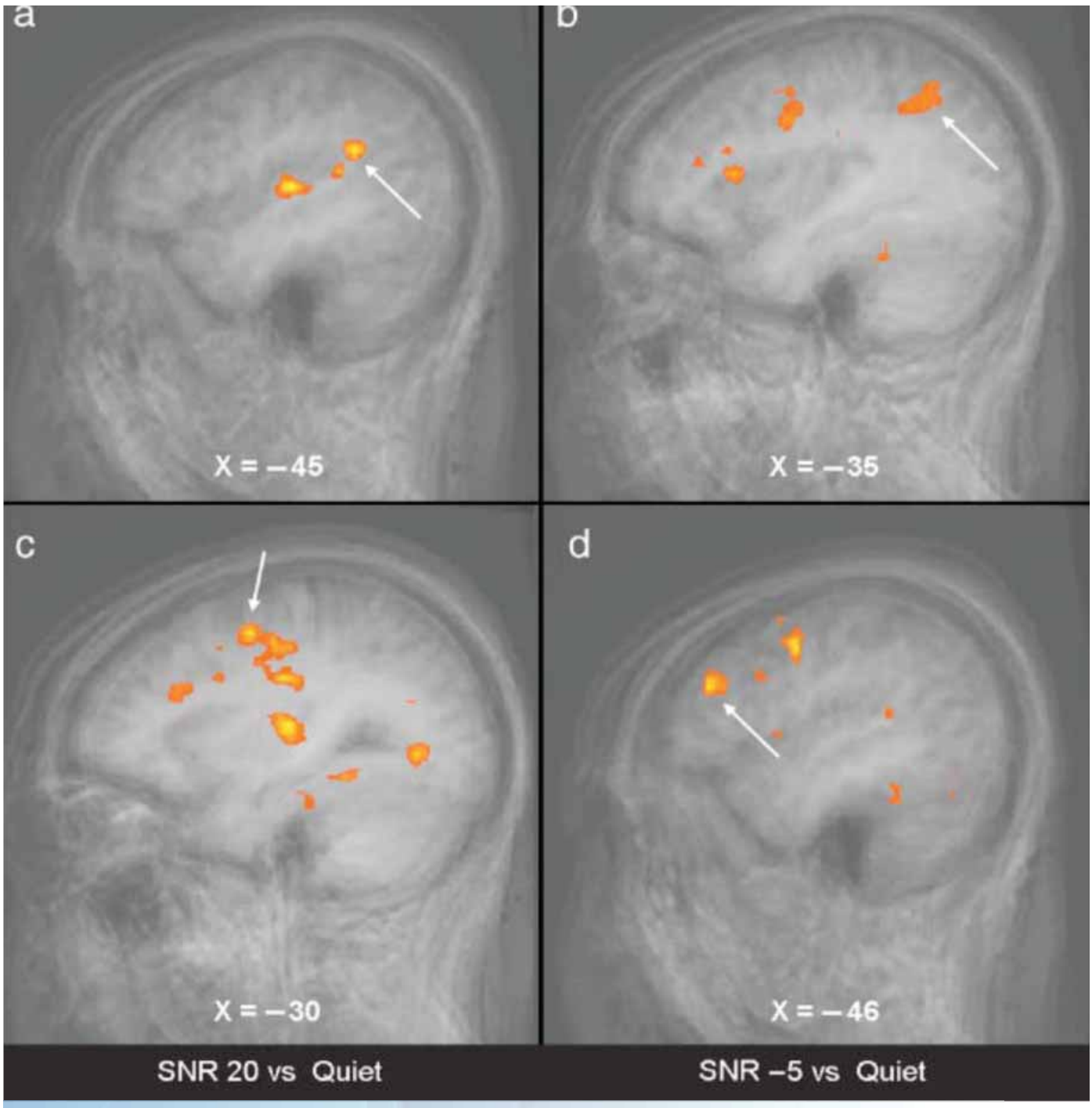

Figure 2. Listening to speech in noise requires possible auditory-motor integration and the phonological working memory network. Arrows indicate activation of interest: (a) During the SNR 20 vs. quiet contrast, the inferior parietal lobule (IPL)/superior temporal gyrus (STG) is activated; (b) During the SNR -5 vs. quiet contrast, the IPL is activated; (c) During the SNR 20 vs. quiet contrast, the middle frontal gyrus (MFG) is activated; and (d) During the SNR -5 vs. quiet contrast, the MFG is activated.