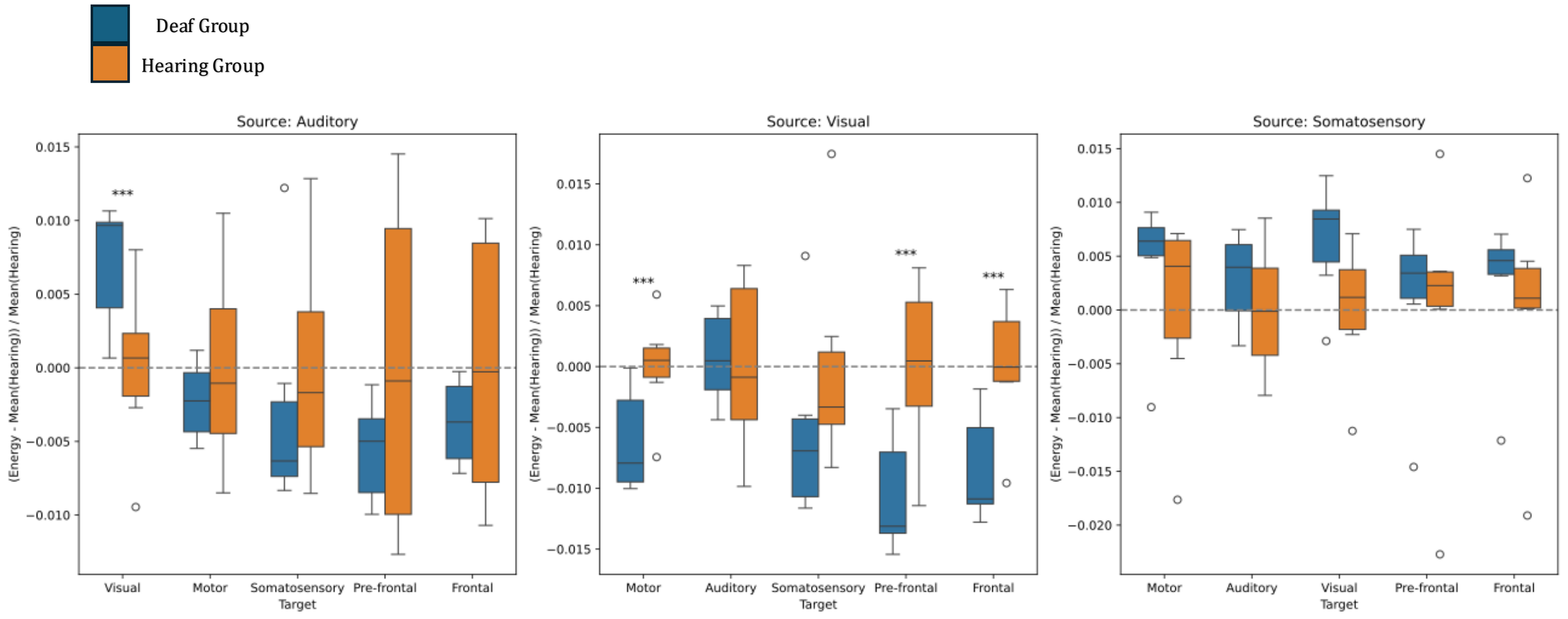

Fig5. Relative Energy Consumption in State Transitions: Although large-scale structural differences were minimal, network control theory simulations revealed subtle reconfiguration of functional dynamics in the deaf brain. Transitions from visual to prefrontal (−1.23%, p = 0.024) and visual to frontal regions (−0.78%, p = 0.026) required less energy in deaf cats, suggesting more efficient access to higher-order cognitive areas. Visual-to-motor transitions also showed reduced energy demand (−0.38%, p = 0.112), whereas visual-to-auditory transitions required more energy (+0.73%, p = 0.150). Boxplots compare relative energy consumption between groups; significant differences ($p < 0.05$) are marked with ***.