\*[While studies utilising animal models provided vast evidence that anatomical hemispheric asymmetries and FCAs are related (for reviews see Corballis & Häberling, 2017; Ocklenburg & Güntürkün, 2012), there is much less research on the direct relation of structural anatomical WM asymmetries and functional lateralization in humans. Schulte et al. (2010) conducted one of the few studies that directly studied this relationship: They used a combination of DTI and fMRI measurements and established that WM degradation in the corpus callosum due to alcoholism attenuates the normal pattern of FCAs, which impairs visuomotor integration. Besides this experimental study, meta-analyses such as by Hausmann (2016) and Hirnstein et al. (2019) have revealed that the results of studies investigating FCAs (e.g., Bless et al., 2015; Hirnstein et al., 2013) largely align with the results of studies demonstrating anatomical hemispheric asymmetries in language lateralisation (e.g., Guadelupe et al., 2015; Li et al., 2014).]

**SSPLs:**

The previously described analysis allows assessing the immediate impact a focal lesion has on direct connections between two given brain regions. However, it fails to account for indirect connections that are achieved via a number of direct connections between intermediary regions. For that reason, we also investigated the increase in ROI-to-ROI shortest structural path lengths (SSPLs). The SSPL score of a parcel pair expresses how many direct connections must be traversed to establish a structural pathway between them, with parcel pairs that share a direct connection having a score of 1. Focal lesions may therefore not only cause direct disconnections, but also indirect disconnections and an associated increase in SSPLs if now a “detour” via other intermediary parcels must be used to maintain the connection ([Griffis et al., 2020](#griffis2020) & [2021](#griffis2021LQT)). (is this even needed?)