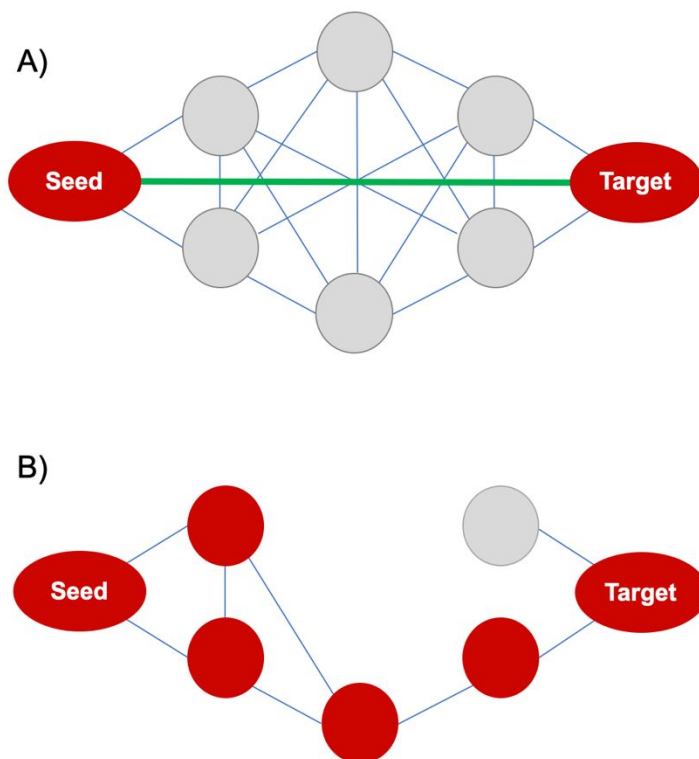


## Supplemental material

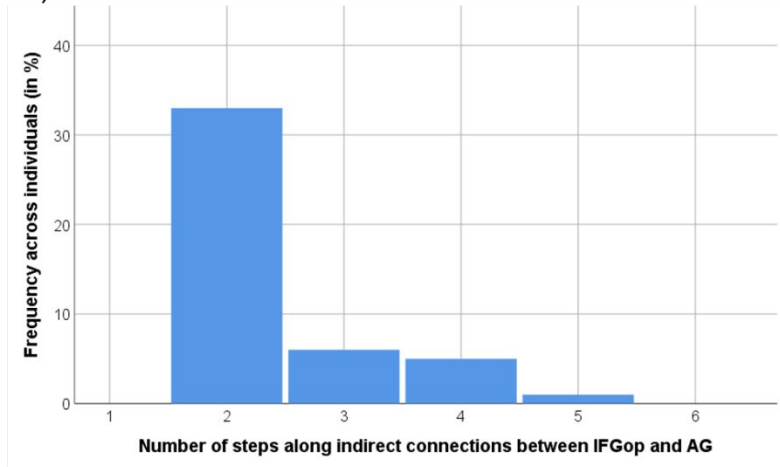
Supplemental Fig. 1: Signal propagation within the brain network.



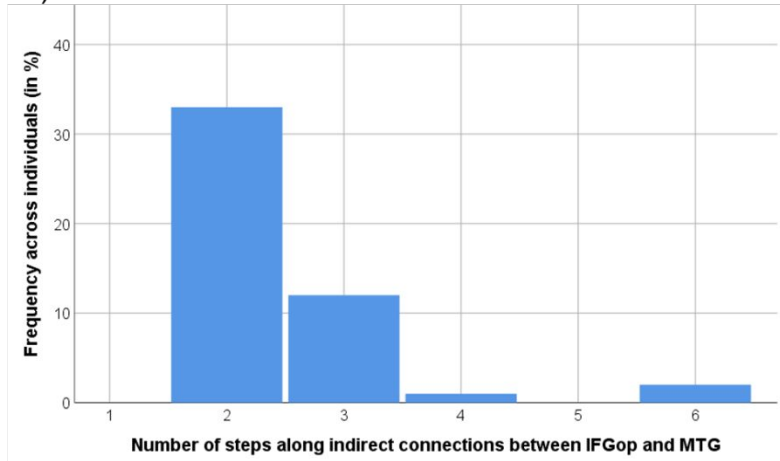
The number of steps between two grey matter regions (labeled as Seed and Target) was used as a proxy for the propagation of a signal between these regions. Each circle represents a grey matter region (node). Red-colored nodes are nodes that are part of the shortest path between the seed and target region (and vice versa). Grey colored nodes are not part of the shortest path. Fig. 1A) The seed region and target region are connected through a direct connection (green line). The number of propagation steps is 1. Fig. 1B) The direct connection between the seed target and the target region is lost. The shortest path between the two regions is an indirect connection with a number of propagation steps of 4.

Supplemental Fig. 2: Distribution of the number of steps for indirect connections for each region pair.

A)



B)



C)

