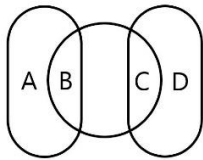


Ambidexterity

Let's say A & B represent one hemisphere, while C & D represent the other.

Let's say B & C represent corticocortical neurons, while A & D are local.

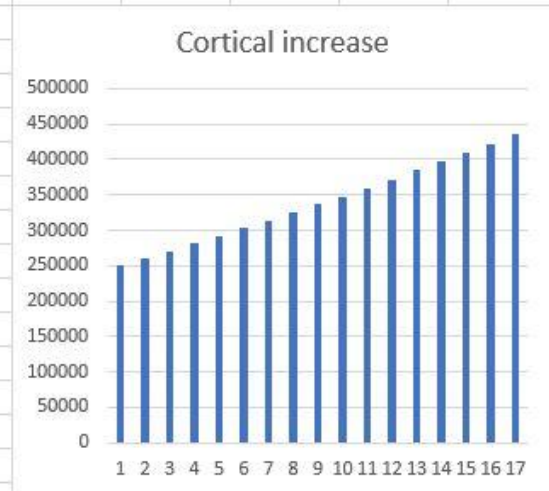
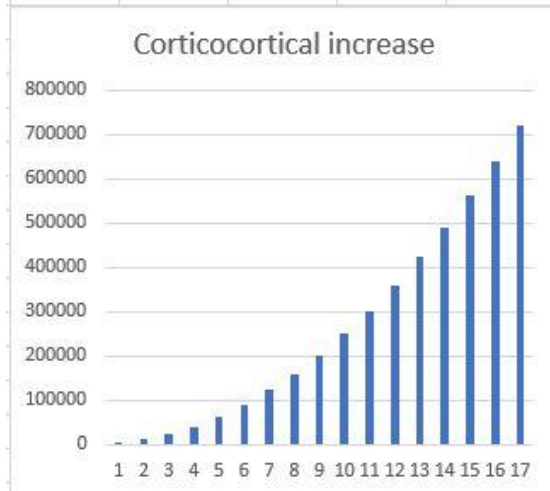


The center section between B & C represents the Corpus Callosum, consisting of 200–300 million *axonal projections*¹, compared to the 100 billion² *neurons*, interconnected via the number of synapses they share between hemisphere. That is to say, that the number of cells which make axonal projections across hemispheres is relatively small compared to the number which those cells themselves communicate with, and generally serve higher functions.

The relative higher importance of corticocortical neurons can be gestured towards by calculating the global maximum connection count for a set given those relationships, which is all the neurons of A, times all the neurons of B, times all the neurons of C, times all the neurons of D. Learning to use both hands equally can increase the CC by as much as 10%³, effectively raising throughput across a bottleneck. This is why putting the effort in to learn to engage fine motor skills and linguistics with both hands is valuable for time spent doing so.

Granted, these proportions and relationships are rudimentary and need to be completely refitted and scaled, but the general idea is that although a 10% increase from B1 and C1 (10 to 11) represents the same global increase as a 10% increase in A2 and D2 (50 to 55), the proportional growth is less in terms of neurons by count it took to make the increase, which means higher return for cost of growth, theoretically.

A1	B1	C1	D1	T1		A2	B2	C2	D2	T2
50	1	1	50	2500		50	10	10	50	250000
50	2	2	50	10000		51	10	10	51	260100
50	3	3	50	22500		52	10	10	52	270400
50	4	4	50	40000		53	10	10	53	280900
50	5	5	50	62500		54	10	10	54	291600
50	6	6	50	90000		55	10	10	55	302500
50	7	7	50	122500		56	10	10	56	313600
50	8	8	50	160000		57	10	10	57	324900
50	9	9	50	202500		58	10	10	58	336400
50	10	10	50	250000		59	10	10	59	348100
50	11	11	50	302500		60	10	10	60	360000
50	12	12	50	360000		61	10	10	61	372100
50	13	13	50	422500		62	10	10	62	384400
50	14	14	50	490000		63	10	10	63	396900
50	15	15	50	562500		64	10	10	64	409600
50	16	16	50	640000		65	10	10	65	422500
50	17	17	50	722500		66	10	10	66	435600



1. https://en.wikipedia.org/wiki/Corpus_callosum
2. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2776484/>
3. <https://pubmed.ncbi.nlm.nih.gov/4023705/>