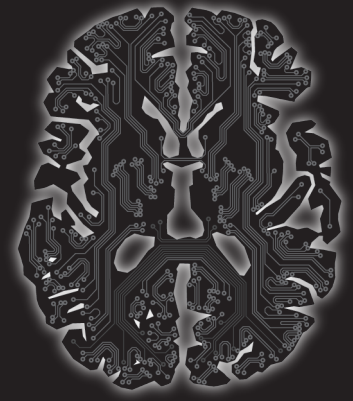


Propositions accompanying the PhD thesis

SHORT CIRCUIT

How brain connectivity and disconnectivity
relate to brain function

Carolyn D. Langen April 18, 2018



1. The results and interpretation of a connectivity study are only as good as the segmentation and visualization methods which are used. (this thesis)
2. The development of functional connectivity involves either entire grey matter regions or focal areas of change, depending upon which regions are involved. (this thesis)
3. Disconnection due to white matter lesions has a genetic link, potentially preferentially affecting specific types of connections. (this thesis)
4. White matter lesions relate to brain function on both a global and a location-specific level. (this thesis)
5. The disconnectome is more informative than the connectome when studying brain dysfunction (this thesis).
6. Evolution is a live-action example of an optimization problem, albeit a very slow one.
7. We can invent as many theories as we like, and any one of them can be made to fit the facts. But that theory is always preferred which makes the fewest number of assumptions. (Albert Einstein)
8. Encouraging academic creativity with monetary incentives is like warming ertwensoep: Without enough heat, the soup may never become sufficiently warm, but a quick burst of heat often results in its projection everywhere except into your bowl.
9. Ultimately, leadership is not about glorious crowning acts. [...] It is about laying the groundwork for others' success, and then standing back and letting them shine. (Chris Hadfield)
10. In primary school we should teach children to critically evaluate news and social media content. During a PhD, researchers should learn how to effectively communicate with the general public.
11. "Curiosity killed the cat, but satisfaction brought it back": the driving factor that keeps inquisitive minds in research- or innovation-driven careers.