**Results**

**P1: Pattern set provided with PDPTOOL**

Lesioning connections has a similar affect on animals and artefacts (actually it results in a slight advantage for animals), but weight noise results in a substantial disadvantage for animal naming. This is the effect claimed by Lambon Ralph et al and used to support the SD/HSVE difference.

**P1-fruit: Pattern set provided with PDPTOOL, sans fruit**

This results in much the same pattern of performance as when fruit is included. Thus, the presence of fruits does not appear to distort the attractor space.

**P2-Andrea: Pattern set generated in 2015 according to the template of Rogers et al (probably)**

Connection lesioning results in a selective deficit in artefact naming (at odds with Lambon Ralph), while weight noise results in a marginal deficit in animal naming (which is sort of what is wanted).

**P3: Pattern set generated according to the template of Rogers et al., but with the symbols in the template (+/-/0) interpreted in a more logical way (i.e., “+” means 80% change, “-” means 20% chance, “0” means zero chance).**

Results are indistinguishable from the P2-Andrea case.

**P4a to P4t: A second pattern set generated according to the template of Rogers et al. (definitely) – this is to confirm that the results seen with P2 replicate**

Results are indistinguishable from the P2 and P3 cases. P4 was subsequently renamed “P2” for publication purposes and the original P2 was renamed p2-Andrea.

**P4-fruit: The same as P4, but without the fruit, in order to see if the presence of fruit distorts the attractor space.**

Results are qualitatively equivalent to the P4 case, but the difference in effect with lesioning is slightly smaller while the difference in effect with weight noise is slightly larger

**P5: Animals have more features than artefacts, but the patterns within and between domains are not correlated (i.e., they are orthogonal).**

Connection lesioning and weight noise both affect artefact naming more than animal naming (i.e., they both produce a category specific deficit), but the effects of the two forms of damage are indistinguishable (as per the studies of Tyler et al.)

**P6: ???**

**P7: First attempted replication of P1.** The patterns were obtained by strengthening the correlations within and between animal categories. As a side effect this made animal vectors even longer, which resulted in them being more robust than artefacts to damage, despite their feature correlations.

**P8: Good replication of P1** (but based mainly on the Rogers et al template). The patterns were obtained by strengthening the correlations within and between animal categories while maintaining similar length.

March 8th 2017: P2 has been renamed P2-Andrea, P4b has been renamed P2 and P4 has been renamed P4b.

**P9:** Original pattern template with last 3 perceptual units of bird and mammals adjusted to increase the length of bird / mammal vectors. Does this reproduce the desired effect? If so, the problem lies in the missing template features, which turn out to be critical. [Note: Also corrected the features associated with fruits – one bit was incorrectly specified in p1 to p8!] No – it does not reproduce P1 – this is still closer to P2/P4, so the problem is not just those three unspecified bits.

**P0:** This should be a replication of P2 / P4. I think this is the original template (with the fruit bit noted in P9 corrected). Connection severing yields an animal advantage / selective deficit for artefacts. Weight perturbation yields a selective deficit for animals. The weight perturbation effect seems stronger with p0 than with p2, but similar to (e.g.,) that with p4a, so I assume this is an artefact of the specific patterns and conclude that P0 does replicate P2/P4 (as it should).