

Supplementary material

Video S1. (a) Illustrates the dynamic GPs, where dipoles appear to shift along the vertical axis, creating an illusion of directional motion despite the absence of coherent motion (i.e., no dipole-to-dipole correspondence between successive patterns) (see <https://osf.io/p68tf>). (b) Shows the mRDKs, depicting randomly distributed dots drifting along the vertical axis. In both videos, two temporal intervals are presented: the first interval always contains the coherent pattern (100% coherence), while the second interval always contains a random/noise pattern (GPs and mRDKs) (see <https://osf.io/m2f36>). However, in the actual experiment, the temporal intervals with the coherent non-directional motion and the noise pattern were presented in random order.