Editorial Review: Mathis

Thanks for your submission; both reviewers and the editor were enthusiastic about your submission which presents some intriguing original results. Before proceeding with publication, please address comments by the two reviewers, as well as the editorial feedback below.

* The terminology in the manuscript is unclear. W, X, Y, Z, ‘E1, ‘E2’ etc. and ‘UG’ … etc. all are referred to interchangeably without defining a relationship between them. In particular, what are the genotypes in Fig. 4 – can you label them as the cooperative/selfish. The first figure does not have a number and could be used to better motivate the connections between your different labels. A table might also be useful.
* Missing Table 1.
* Please address reviewer1’s concern regarding an explanation of the results of Fig. 1 and why they differ from that presented in Ref 1.
* It is stated that the information measures could not distinguish the selfish from cooperative replicators – is this true generally or of this setup? Would the information measures distinguish between the two scenarios if selfish and cooperative were treated in isolated systems?
* There is not discussion on why the scaling in Fig. 3 differs from that found in Ref 3. It could be attributed to differences between chemistry and biology, as the author suggests, or other factors – I am not yet convinced of the former. In particular, the issue of coarse-graining is discussed throughout the manuscript. Is the scaling relation in Fig. 3 an artifact of the specific manner in which the states of the network were binned? Would others produce other results? Even if outside the scope of the current results, this important issue should be discussed in more detail.
* It is difficult to interpret Fig. 4 without knowing what the genotypes on the x and y axis refer to – please address per the comment above, and perhaps color the labels as with the dashed lines in Fig.2. Is there anything significant about the high TE pairs with reference to selfishness v. cooperativity?
* I cannot make sense of Fig. 5 and what the author aims to show. The y-axis label is ambiguous and the discussion in the text about the aim of the figure is also ambiguous. If there are not clear results to discuss related to the figure, it is perhaps not worth including.