Interactive comment on “The role of catchment classification in rainfall-runoff modeling” by Y. He et al.

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This is a contribution from an author not usually associated with the regionalisation discussion in contemporary hydrology. It is good to know interest in the topic of regionalisation, in general, is growing. Coming from a relatively young female scientist, it is in the humble opinion of this reviewer, ought to be encouraged and supported.

The paper presents a comprehensive review of regionalisation techniques in a rather unorthodox style. This makes reading of the manuscript laborious and sometimes boring. Having said this, the work definitely contains many important and interesting points that are clearly contributions beyond the state-of-the-art. The exploration of regionalisation in other fields is particularly interesting and dare I say this part of the document could have been even more useful had the authors made additional efforts to make links between the outcome of their investigative exploration and the theory and application of hydrological modelling. The segregation of classification into, for example, Linnaean and numerical types is especially interesting. This reviewer found the attempt noteworthy and deserving of further investigation (for example in the development of systematic nomenclatures for ‘similar catchments’ in hydrology).

In terms of recommendations I would suggest or rather propose the following: 1. Restructuring of the content to make the document more coherent; 2. The length of the manuscript could shorten and the entire document made more efficient. Not only would this improve readability it would help get the import of the article across to a wider audience, improving impact tremendously; 3. The manuscript is in urgent need of an illustration or diagram to present some of the points made in writing. The latter would also help get rid of superfluous text.

This paper should definitely be accepted albeit with important revisions. Implementing the points enumerated in points 1 to 3 above would convert a brave attempt into a significant achievement that will serve current scientists and engineers and be a useful resource for posterity.

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