

Q 9

In my opinion, the Rashomon set is realistic and can be used to meaningfully capture explainable models.

First of all, back to the most basic reason that we use machine learning to model is to help people figure out the association between reasons and phenomenon. On the basis of the association, we want to go further to predict events and what's more, to help us make decisions that look better. Therefore, the most important is the causal relationship between causes and effects. Logically, a set of causes (c), maybe we even can't identify all of them, lead to a series of effects (e), there must be a interpretable model among them, otherwise, how can e be caused by c?

There is some evidence that the assumption(that that we must always sacrifice some interpretability to get the most accurate model) is wrong.^[1]This shows that there is no conflict between accuracy and interpretability. In view of that the data allow for the existence of a large set of fairly accurate predictive models, it is reasonable to contain at least one model that is interpretable.

[1] Rudin, C., & Radin, J. (2019). Why Are We Using Black Box Models in AI When We Don't Need To? A Lesson From An Explainable AI Competition. *Harvard Data Science Review*, 1(2). <https://doi.org/10.1162/99608f92.5a8a3a3d>