

## Exploring the Role Non-epistemic Values Play in Generating and Applying Minimal Models

### Abstract:

Minimal models are often characterized as “abstract and unrealistic” as they often “lead to no clearly testable hypotheses” (Sugden, 2). Along these lines, highly idealized models do not tell us something is the case, but instead, provide a plausibility argument why something *may* be the case, given a certain set of assumptions (O’Connor, 2017; Morrison and Morgan, 2010; Nersessian, 2002; Sugden, 2000). A famous example of a highly idealized model is Schelling’s ‘checkerboard’ model of racial segregation—a simple, agent-based model to show how a set of minimal assumptions can generate social patterns consistent with widespread racial segregation. As we know, proper explanations for racial segregation turn on many factors, including systematic discrimination and bias against racial minorities. However, this doesn’t mean that Schelling’s model doesn’t have an important epistemic function. For instance, O’Connor (2017) argues that highly idealized models like Schelling’s track the minimal causal conditions necessary for a phenomenon to occur. In this case, Schelling’s model illuminates the minimal commonplace factors that are enough to generate inequity. Similar to the Schelling model, the Hong and Page ‘diversity-trumps-ability’ model is highly idealized. Accordingly, Hong and Page have an epistemic responsibility to make clear the nuanced conclusions the model serves to support akin to the way both O’Connor and Schelling discuss what lessons we can glean from such a highly idealized model. As will be discussed, the fact that Hong and Page aren’t careful in their discussion of the diversity-trumps-ability model’s results shows a deviation from the commonplace epistemic standards in the modeling community. As I argue, this deviation in epistemic standards is guided by the social-good the model’s results supports, namely that diversity trumps ability. I then discuss whether this deviation in epistemic standards is a good thing or not by drawing upon Heather Douglas’s (2009) work on inductive risk.

### References

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