

How well are two process models standing up to the Bayesian Challenge?

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A popular view in cognitive science challenges the dual process perspective both on normative and descriptive grounds. Normatively, if behavior can be assimilated to a single rational model, there's no need to posit different systems to explain fallacious versus normatively-appropriate reasoning. Descriptively, if all reasoning pursues the same computational goal of maximizing the likelihood of some hypothesis given the data, then reasoning should be explainable with a single computational system. I don't believe these arguments present a fatal challenge to the dual system view, but they do force dual-process theorists to clarify their theories. For instance, how dual system theories apply to causal reasoning is opaque.