Some comments:

Assumption No.1: Volatility is 10% annual, which is a static number. But in reality, this number is also dynamic. One could argue that implied volatility could be utilized to address this.

Assumption No.2: Initial states’ Sharpe ratio distribution in the static case is discrete. They are reflective of the view of the manager on the strategy, but one could argue that more intervals applied to the Sharpe ratios may generate better approximate.

Assumption No.3: In the dynamic case, the distribution among the four types of strategies could be hard to determine. And quantifying that is even harder. For each type, there're even more things need to be considered. For example: rates of decay need to be pre-determined, and for the decay abruptly to 0, the point in time also needs to be pre-determined.

Assumption No.4: The paper is calculating the Bayes using 1-year data. But what if shorter or longer period of time offers better result.

Assumption No.5: Like many other studies, the daily returns R are normally distributed and independent across time. Some may argue that regime study could be utilized to help address the dependency issue in reality.

Regarding the obstacle mentioned in the conclusion section, "updated beliefs are sensitive to prior beliefs", again, the prior beliefs could vary depends on different interpretation and different time periods.

In general, if one has a clear view on the Sharpe ratios of the strategies across the time period, this methodology should generate results with valuable insights.