Exercise 3.2.3

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1 Question

Exercise 3.2.3 In what context might different possible summaries of the posterior distribution of δ (i.e., point estimates, or credible intervals) be reasonable, and when might it be important to show the full posterior distribution?

2 Comments/Solution

For certain scenarios where the prior of the underlying parameter that controls the posterior may not be a flat/uniform distribution. For these cases the point estimates or credible intervals may not describe the full story and would be important to observe.

In general, point estimates (usually mean, median, or mode) and credible intervals are appropriate when they convey much the same information as would be gained from examining the whole posterior distribution. For example, if the posterior distribution is symmetric and with a small variance, its mean is a good summary of the entire distribution.