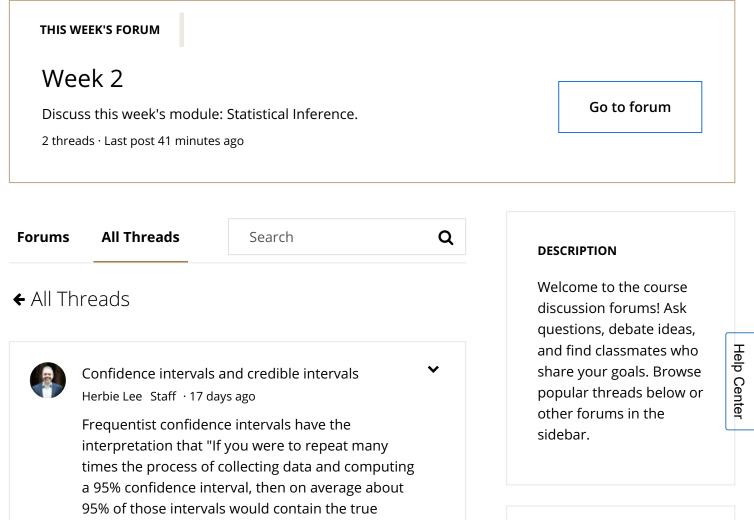
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parameter value; however, once you observe data and compute an interval the true value is either in the interval or it is not, but you can't tell which." Bayesian credible intervals have the interpretation that "Your posterior probability that the parameter is in a 95% credible interval is 95%." Under what circumstances would you prefer a frequentist confidence interval, and when would you prefer a Bayesian credible interval?

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Claude Chaunier · 7 days ago · Edited



To me frequentist confidence intervals look like Bayesian credible interval that have not been fully worked out. For example, if you want to compute confidence intervals for the obvious parameter of a Bernouilli process, you have to establish a procedure (before getting some data) that should tell you how to compute the confidence intervals once you'll get the data. To get it right, you have to consider the whole range of possible values. You may have some prior knowledge that the range is smaller than [0, 1]. You also have to distribute some weight on the possible values according to some prior belief, and most often frequentists ignore that and use a uniform distribution without seeing it for what it is.

O Upvote · Reply

JW

Jianhong Wang · 7 days ago

I prefer a Bayesian credible interval for all the circumstances.

₺ 0 Upvote · Reply



상언 박 · 6 days ago

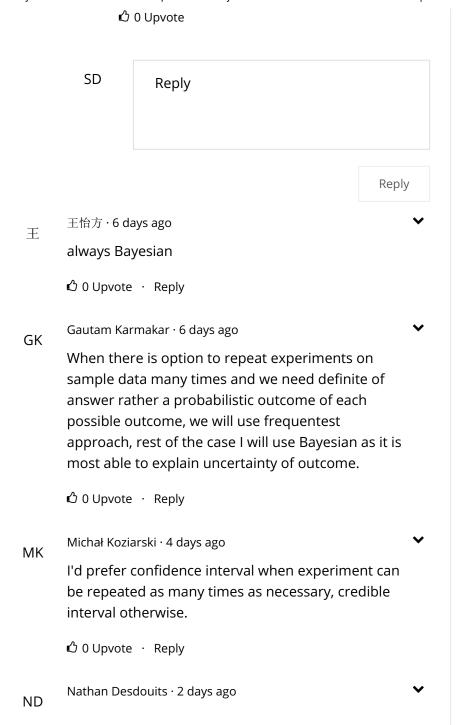
Before experiments and I want to test my accuracy with not happen, I will try to use a Bayesian credible interval. But after having many experience on the assignment or I want to prove my happened assignment, I prefer a frequentist confidence intervals.

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상언 박 · 6 days ago

Oh my god, I didn't understood and had a perfectly different ideas of those. Sorry. When I use a Bayesian credible interval is to want to prove my data. Suppose I want to know the prob of A who will be next president. At that time, I use a Bayesian credible interval to know the prob of A over 50%. In the other hand, when I use a confidence intervals is to measure how much my system will have a lose. Suppose a probability of my factory's success of building a car .99. and company want to how much money I lose during 1 years. At that time, we use a confidence intervals to calculate the lose.



I would prefer a frequentist confidence interval if I know the value of the parameter beforehand and I want to know the probability the data is sampled from that particular distribution.

I would prefer a Bayesian credible interval if I observe data and want to have a range estimate of the parameter given this data.

⊘ 0 Upvote · Hide 1 Reply

ND

Nathan Desdouits · 2 days ago

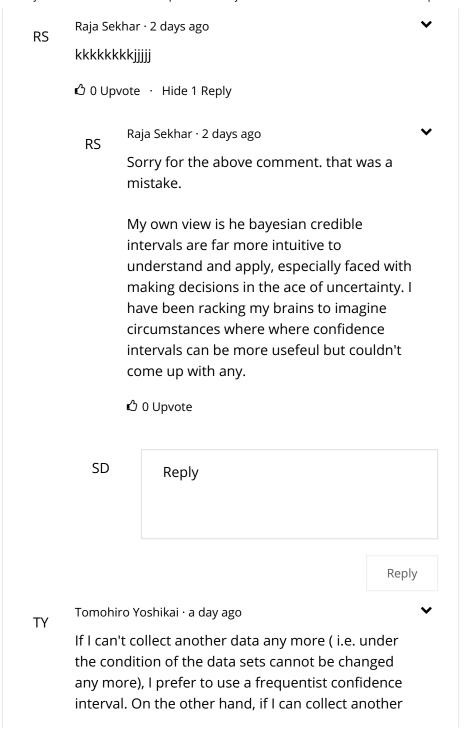
As an example of when frequentist confidence interval is prefered, say I have a factory that I know produce lightbulbs that break after 100 days of (correct) utilisation on average, with a standard deviation of 10 days. A client comes and says he bought 10 lightbulbs and they all went down after only 50 days of usage. I would use frequentist confidence interval to show with N% confidence that his lightbulbs couldn't come from my factory - he either misused them or bought them from a scam.

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SD

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Bayesian Statistics: From Concept to Data Analysis - Priors and Models for Discrete Data | Coursera data in the future, I prefer to use a Bayesian credible interval, because I can modify the credible interval by using another data sets. 🖒 0 Upvote · Reply Vimos Tan · a day ago V Confidence intervals works when you need high precision, credible intervals works when you need high recall. 🖒 0 Upvote · Reply Stephen Kelley · 20 hours ago frequentist confidences level would be preferred when it is practical to repeat the process many times and a Bayesian when it is not 🖒 0 Upvote · Reply Fernando Pay Vázquez · 41 minutes ago FV 🖒 0 Upvote · Reply 1 > SD Reply

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