* “This contrasts with the Bayesian approach, discussed more fully below, where is a random variable.”
* “a parameter such as p is assumed to have a probability distribution so that it now makes sense to say that the probability of p falling within a given interval is 95%”
* “quantifies knowledge of, and more specifically uncertainty about, p before the data are observed”
* “The prior distribution is multiplied by the likelihood function (and normalized by the marginal distribution of the data) to give a posterior distribution.”
* Advantage: “Bayes intervals are appealing because they have an easier interpretation than the usual frequentist confidence intervals”
* Disadvantage: “However, their main drawback is that it is necessary to provide a prior distribution for p. If good, quantifiable, prior knowledge is available, then Bayes intervals are a sound choice; otherwise, different researchers may come up with different prior distributions. The fact that these different prior distributions may lead to different intervals, as we see below, can be a serious drawback. Prior ignorance is often represented by an uninformative prior, but even here different choices are possible for what is meant by “uninformative,””