Most of us tend to believe we are agnostic as to our philosophical convictions when we are in the classroom. For much of what we teach, there is some truth to this belief: although choices have been made, they are so far in the background that we tend not to think much about them. However, the story is not as simple when we teach statistics. There we are confronted with at least three competing philosophical approaches from which to choose: the frequentist realist view of R. A. Fisher, the frequentist behaviorist perspective of Jerzy Neyman and Egon Pearson, or the subjective view of a Bayes/Laplace development. No philosophy of statistics has a claim to be the standard approach; indeed, some textbooks will present all three of these. Moreover, unlike, for example, an analysis course where the choice between a standard and a nonstandard development influences only the presentation, the philosophical choices we make in statistics influence our conclusions as well. In this talk, I will discuss these three schools of thought, with particular emphasis on the differences between the two frequentist approaches. (Received July 23, 2015)