

we should say if the experiment on which  $a$  is defined is brought out again and again in the long run  $a$  will occur 95% of the time. In the long run 95% of our computed confidence intervals will contain  $\mu$ , so in the long run 5% of the intervals will fail to contain  $\mu$ . So we can't say an event  $a$  has a probability of 0.95 because the confidence level 95% is not much a statement about any event or particular interval. The confidence intervals is not saying that  $a$  is between that interval, but it says the probability falls in this range is 95%. The figure 7.3 in the book shows that  $\bar{x}$  [unknown] cut the vertical.