

[@wasserman\_all\_2003]

Probability is a mathematical language for quantifying uncertainty 3

The **sample space**  $\Omega$  is the set of possible outcomes of an experiment. ...  
Subsets of  $\Omega$  are called **Events** 3

We will assign a real number  $Pr(A)$  to every event  $A$ , called the **probability** of  $A$ . 5

There are many interpretations of  $P(A)$ . The common interpretations are frequencies and degrees of belief. 6

The difference in interpretation will not matter much until we deal with statistical inference. There the differing interpretations lead to two schools of inference: the frequentists and Bayesian schools. 6