



Subjective Probability

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Subjective Interpretation of Probability

- Frequentist Interpretation of Probability
 - Long-term frequency of occurrence of an event
 - Requires repeatable experiments
- What about the Following Events?
 - Core meltdown of a nuclear reactor
 - You being alive at the age of 80
 - Oregon beating Stanford in their 1970 football game (unsure about the outcome although the event has happened)

Subjective interpretation of probability: **an individual's degree of belief** in the occurrence of an event

Subjective Interpretation of Probability (Cont.)

■ Why Subjective Interpretation

- Frequentist interpretation is not always appropriate
 - Some events cannot be repeated many times
 - e.g. Core meltdown of a nuclear power, your 80th birthday
 - The actual event has taken place, but you are uncertain about the result unless you have known the answer
 - e.g. The football game between Oregon and Stanford in 1970
- Subjective interpretation allows us to model and structure individualistic uncertainty through probability
 - Degree of belief that a particular event will occur can vary among different people and depend on the contexts