EXPERT ELICITATION

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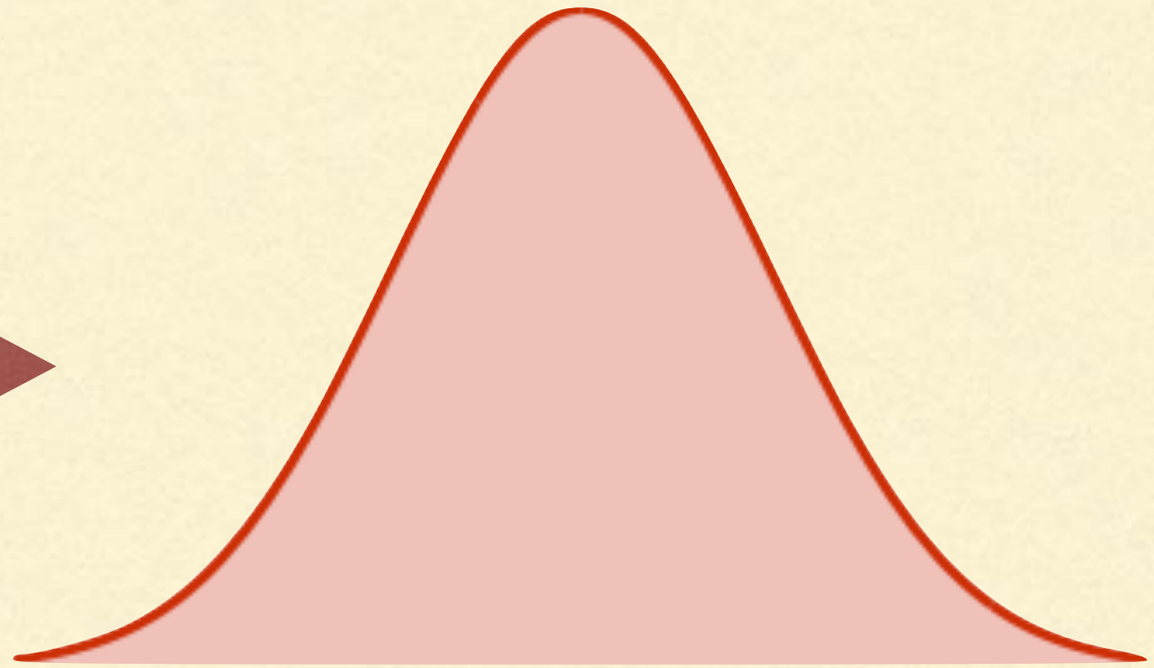
Expert Elicitation



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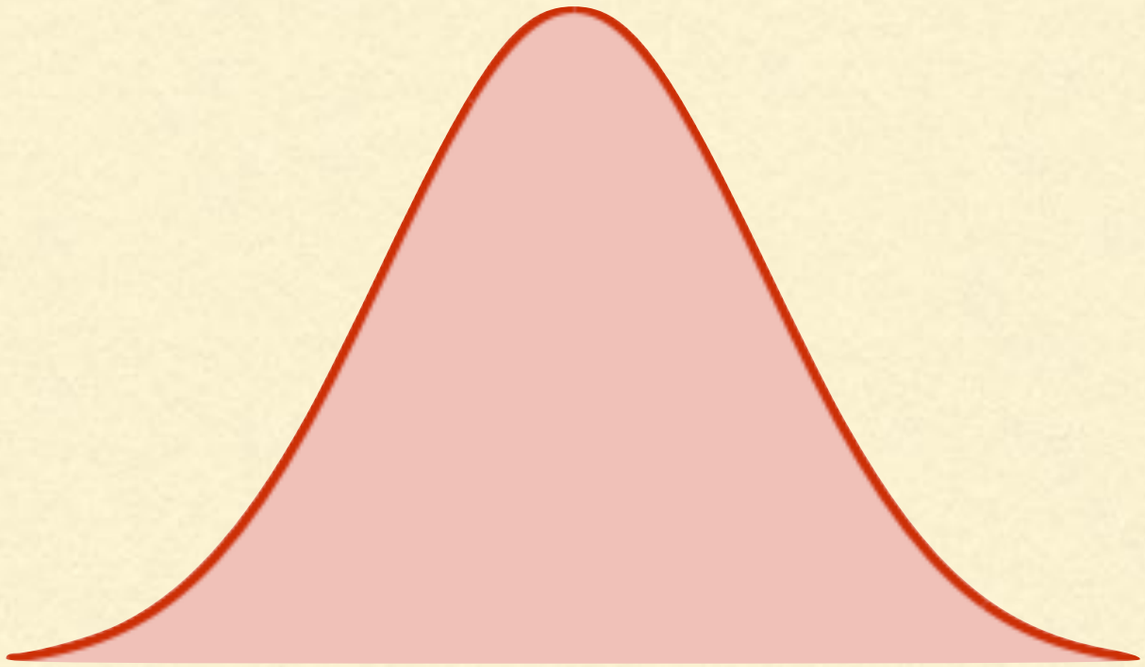

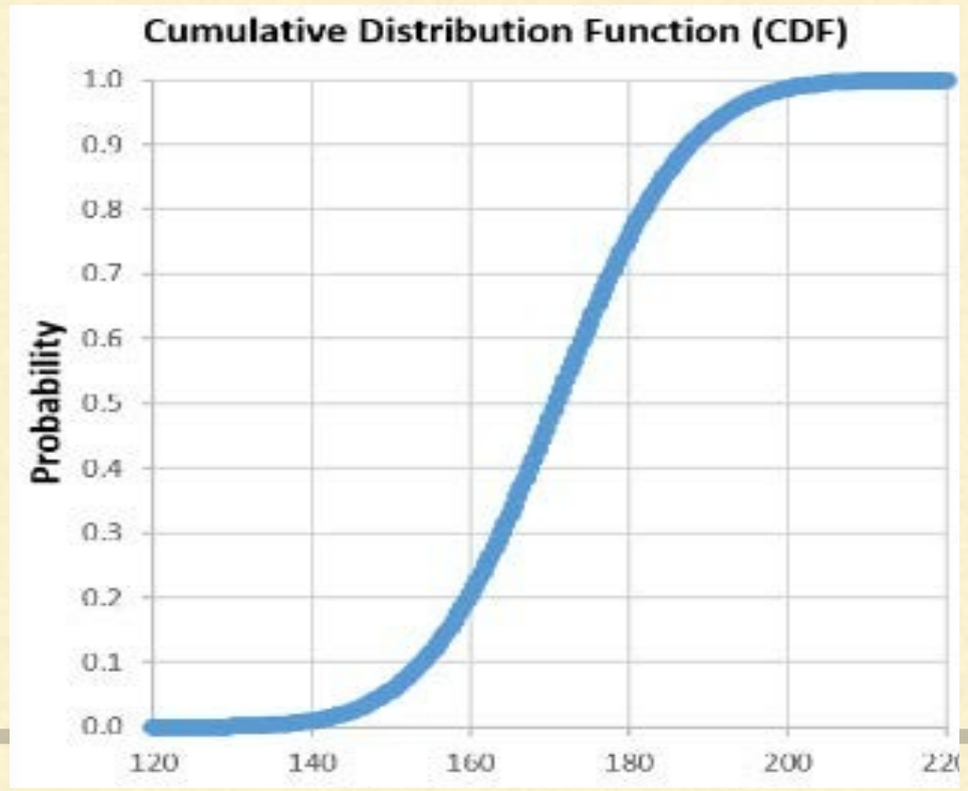

Biases & Heuristics

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- Rely on mental short cuts (heuristics)
- Systematic patterns to error (biases)
- Challenge of elicitation is to ask experts questions in a way that produces unbiased answers

Anchoring

The mind is biased toward the first piece of information

last 2 digits of SSN predicts bid on wine

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…even if it is irrelevant

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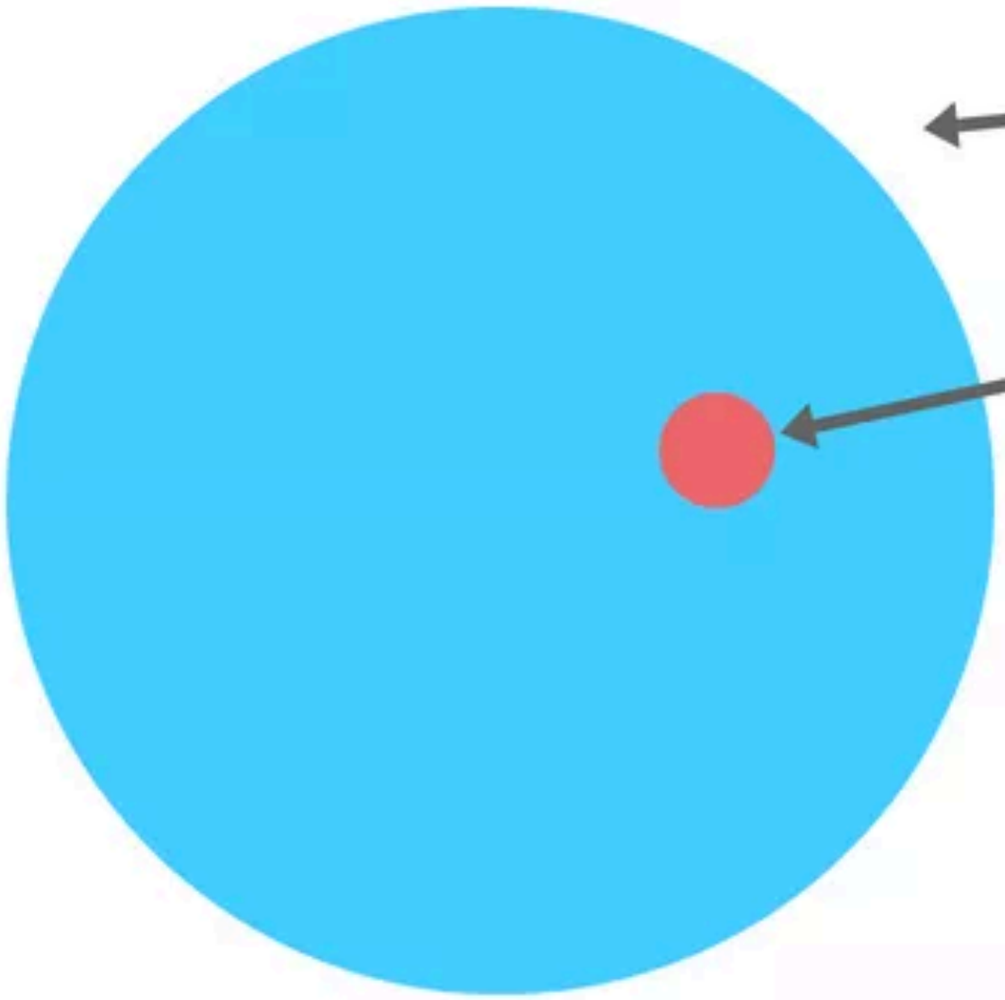
The mind is biased toward the first piece of information

…even if it is irrelevant

Don’t start with the mean / default

last 2 digits of SSN predicts bid on wine

The availability heuristic

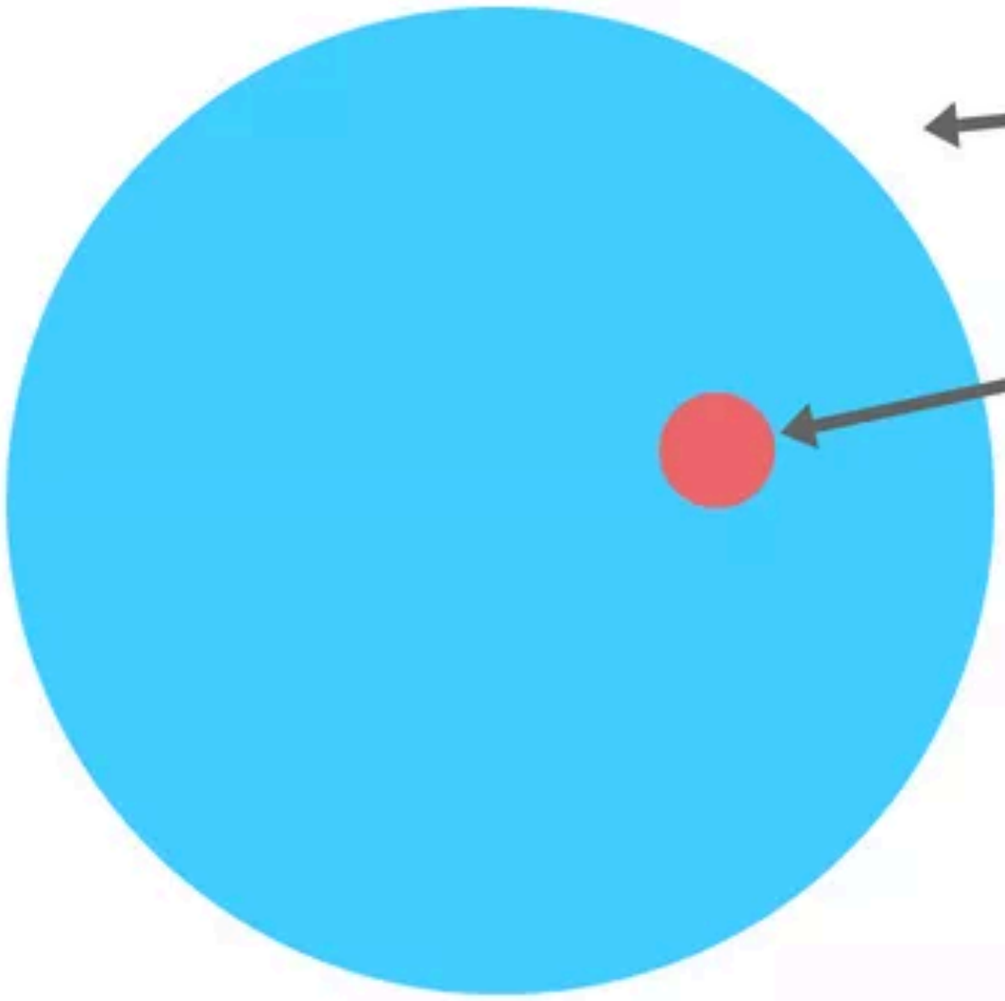


All the information

The information you use to make a decision

- recent
- frequent
- extreme
- vivid
- negative

The availability heuristic



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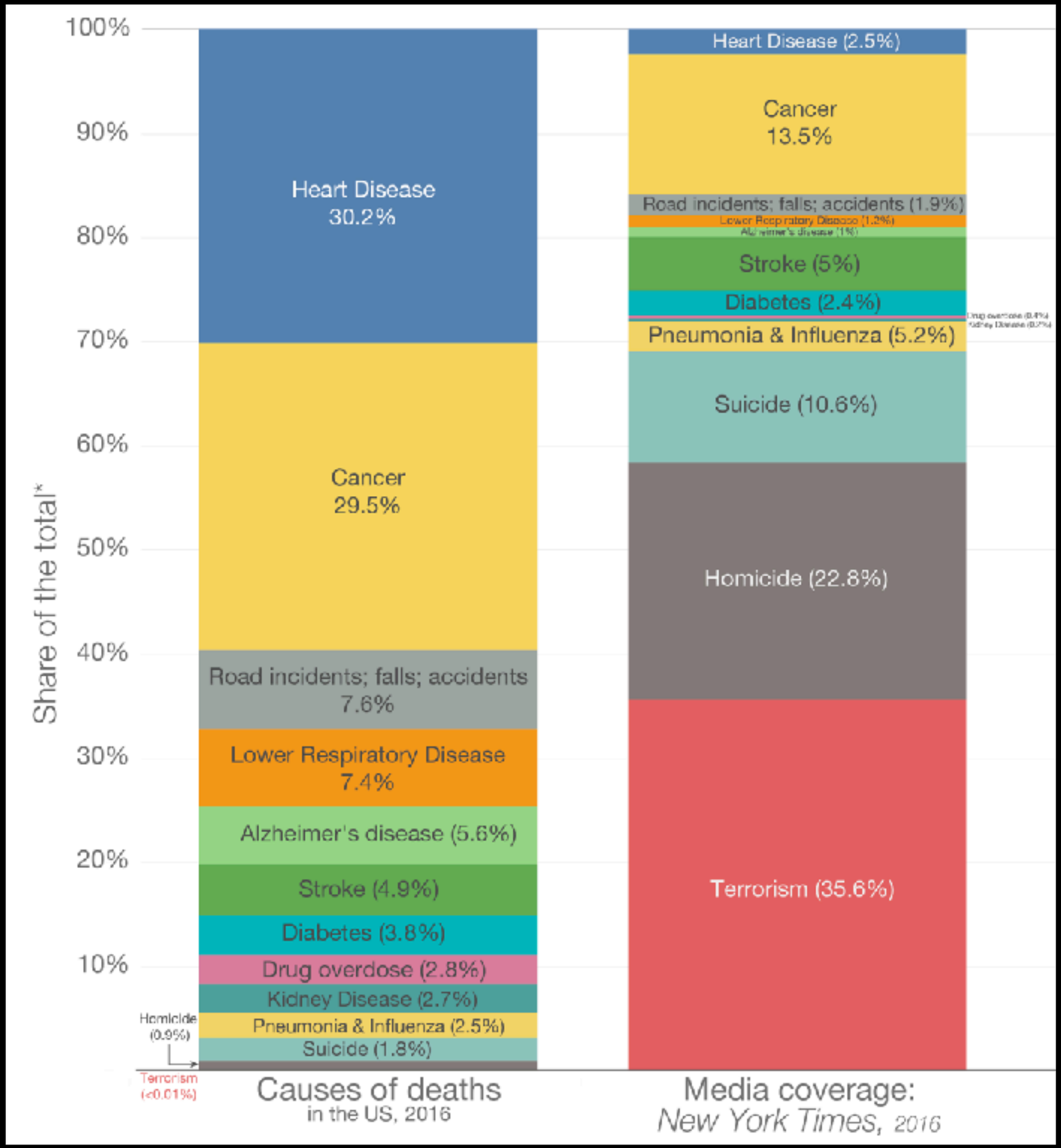
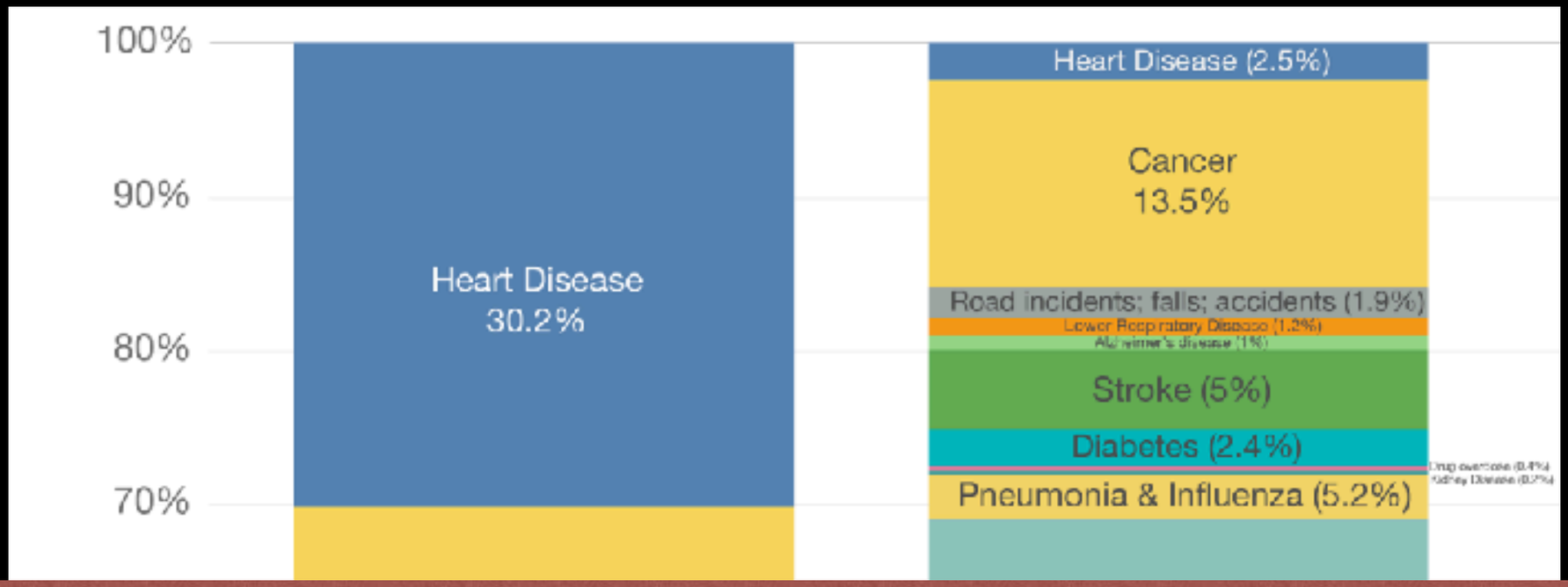
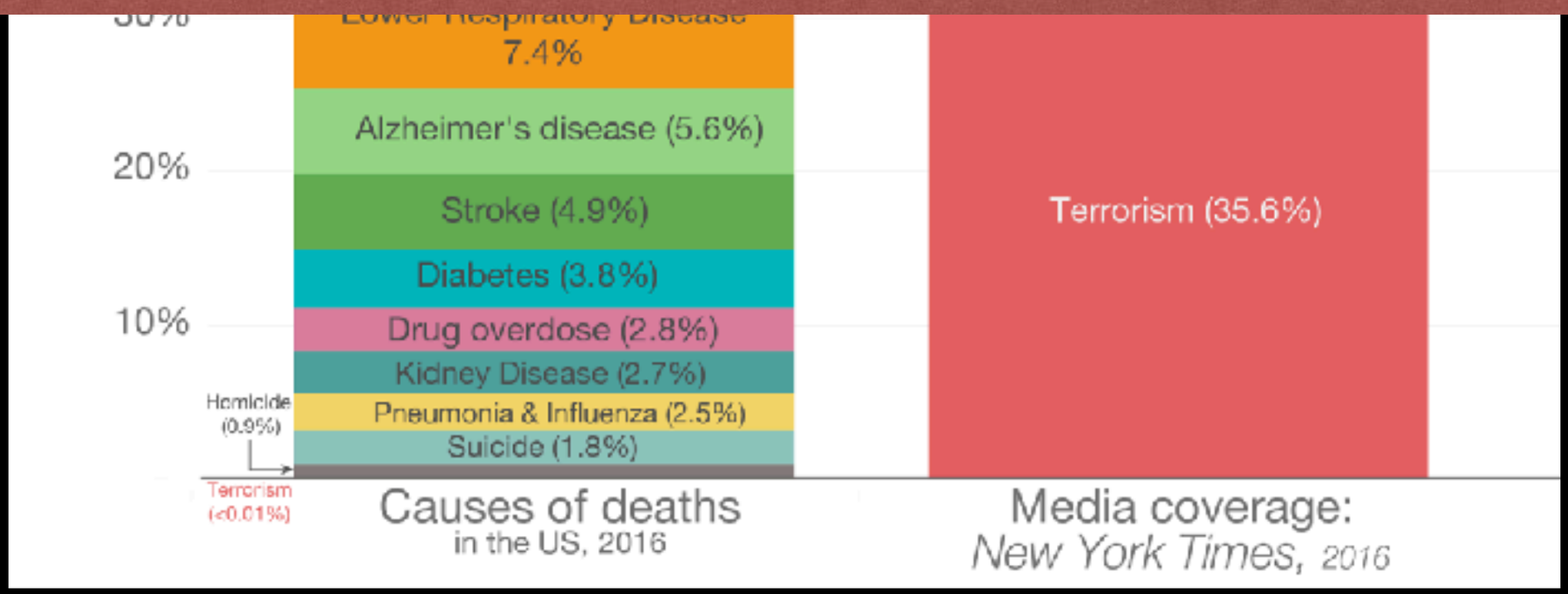
Substitutes ease of recall for frequency

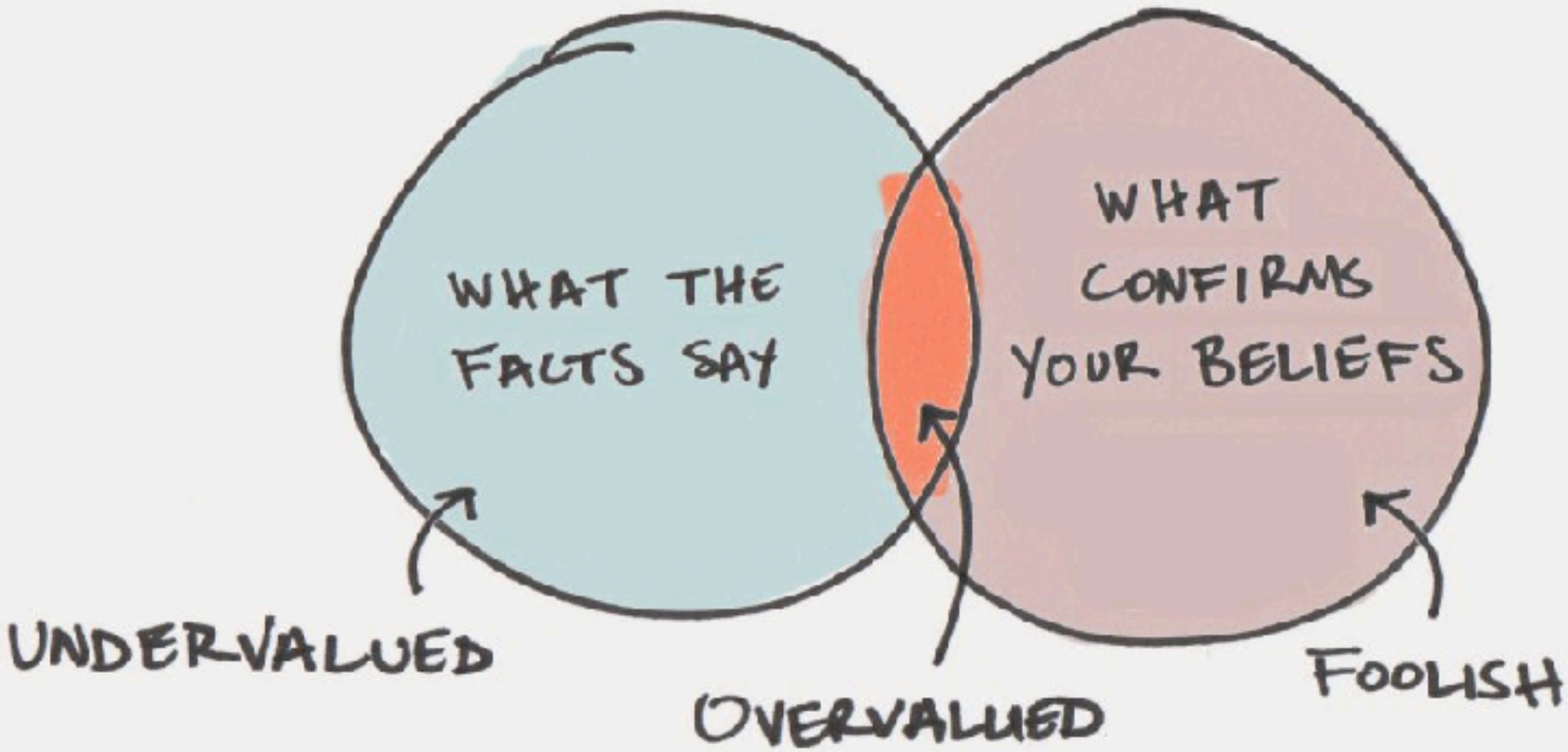

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
Share of the total*
Heart Disease
30.2%
Cancer
29.5%
Road incidents; falls; accidents
7.6%
Lower Respiratory Disease
7.4%
Alzheimer's disease (5.6%)
Stroke (4.9%)
Diabetes (3.8%)
Drug overdose (2.8%)
Kidney Disease (2.7%)
Pneumonia & Influenza (2.5%)
Suicide (1.8%)
Homicide
(0.9%)
Terrorism
(<0.01%)
Causes of deaths
in the US, 2016
Heart Disease (2.5%)
Cancer
13.5%
Road incidents; falls; accidents (1.9%)
Lower Respiratory Disease (1.2%)
Alzheimer's disease (1%)
Stroke (5%)
Diabetes (2.4%)
Pneumonia & Influenza (5.2%)
Suicide (10.6%)
Homicide (22.8%)
Terrorism (35.6%)
Media coverage:
New York Times, 2016



Help expert consider additional evidence



THE CONFIRMATION BIAS

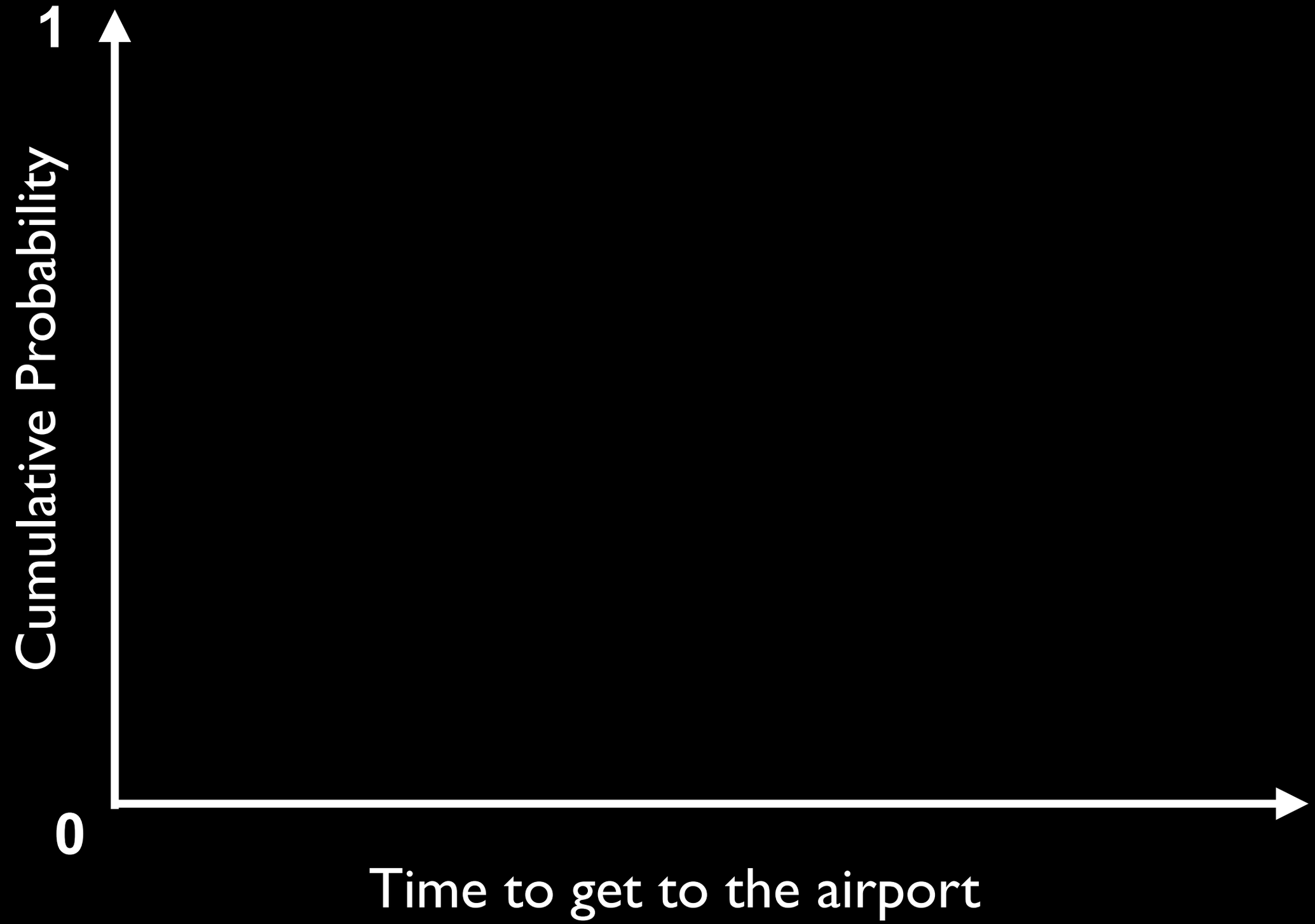


JamesClear.com

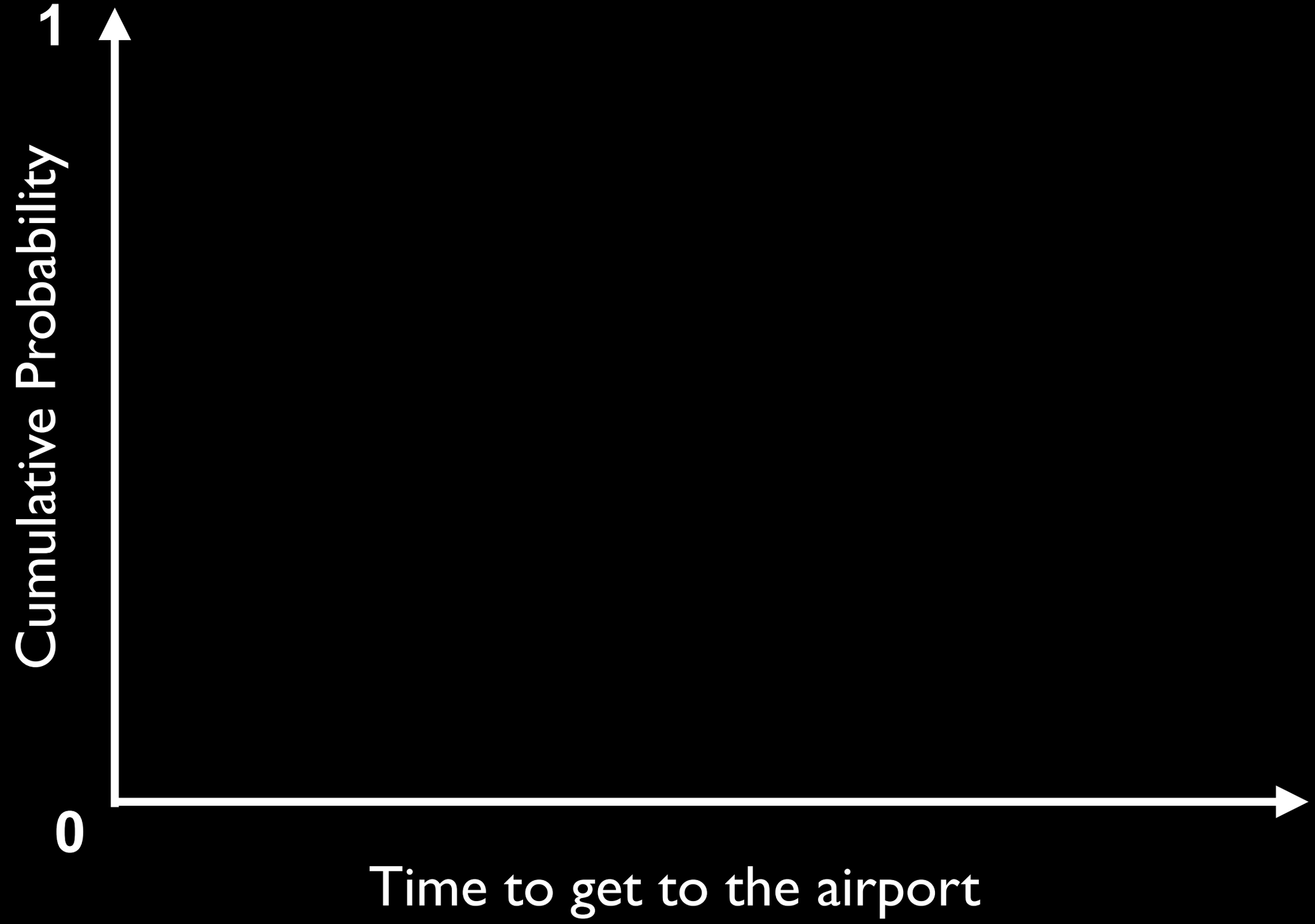
THE CONFIRMATION BIAS

Help expert consider disconfirming evidence

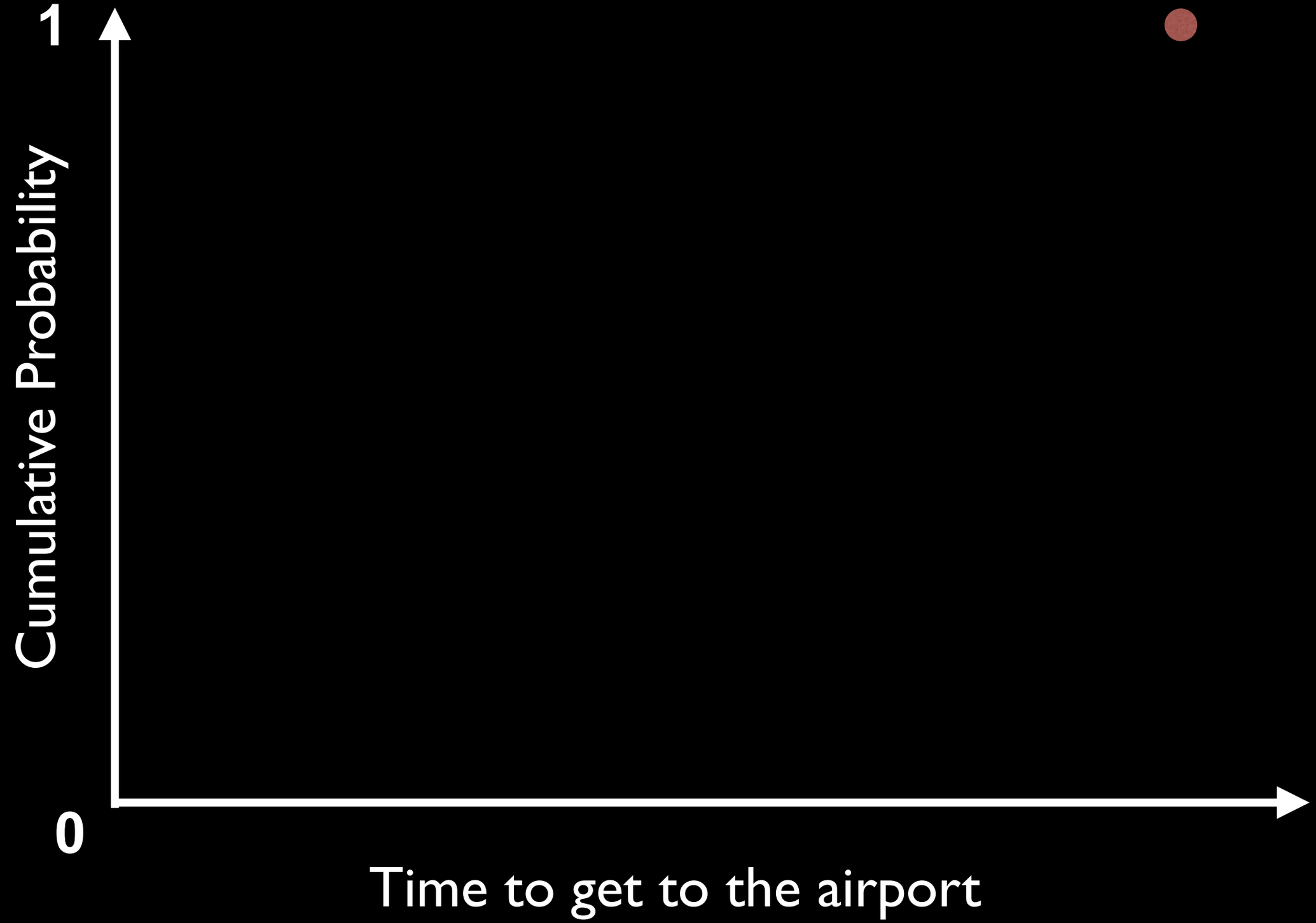
JamesClear.com


1
Cumulative Probability
0
Time to get to the airport

Longest possible time?

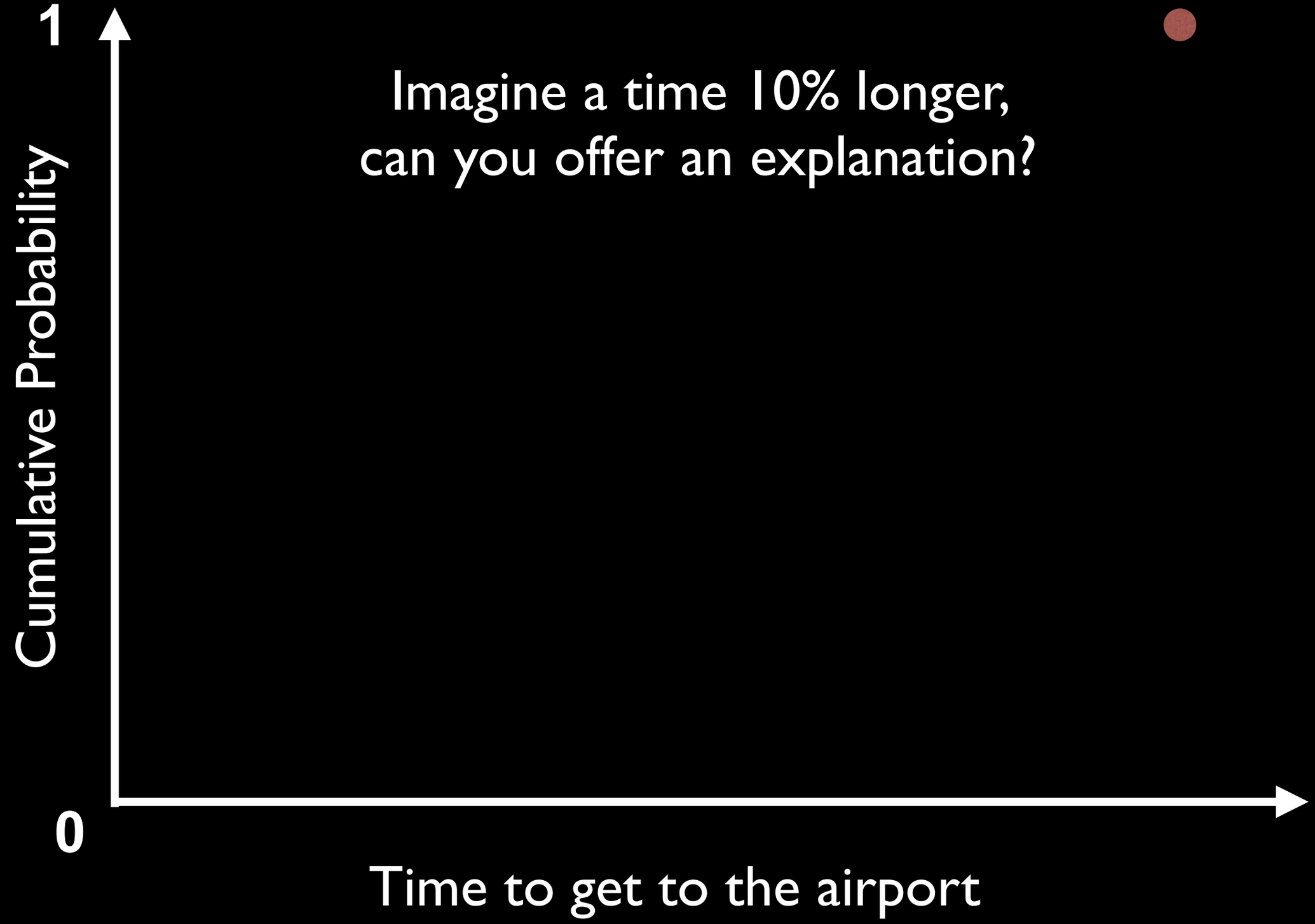


Longest possible time?



Longest possible time?

Imagine a time 10% longer,
can you offer an explanation?



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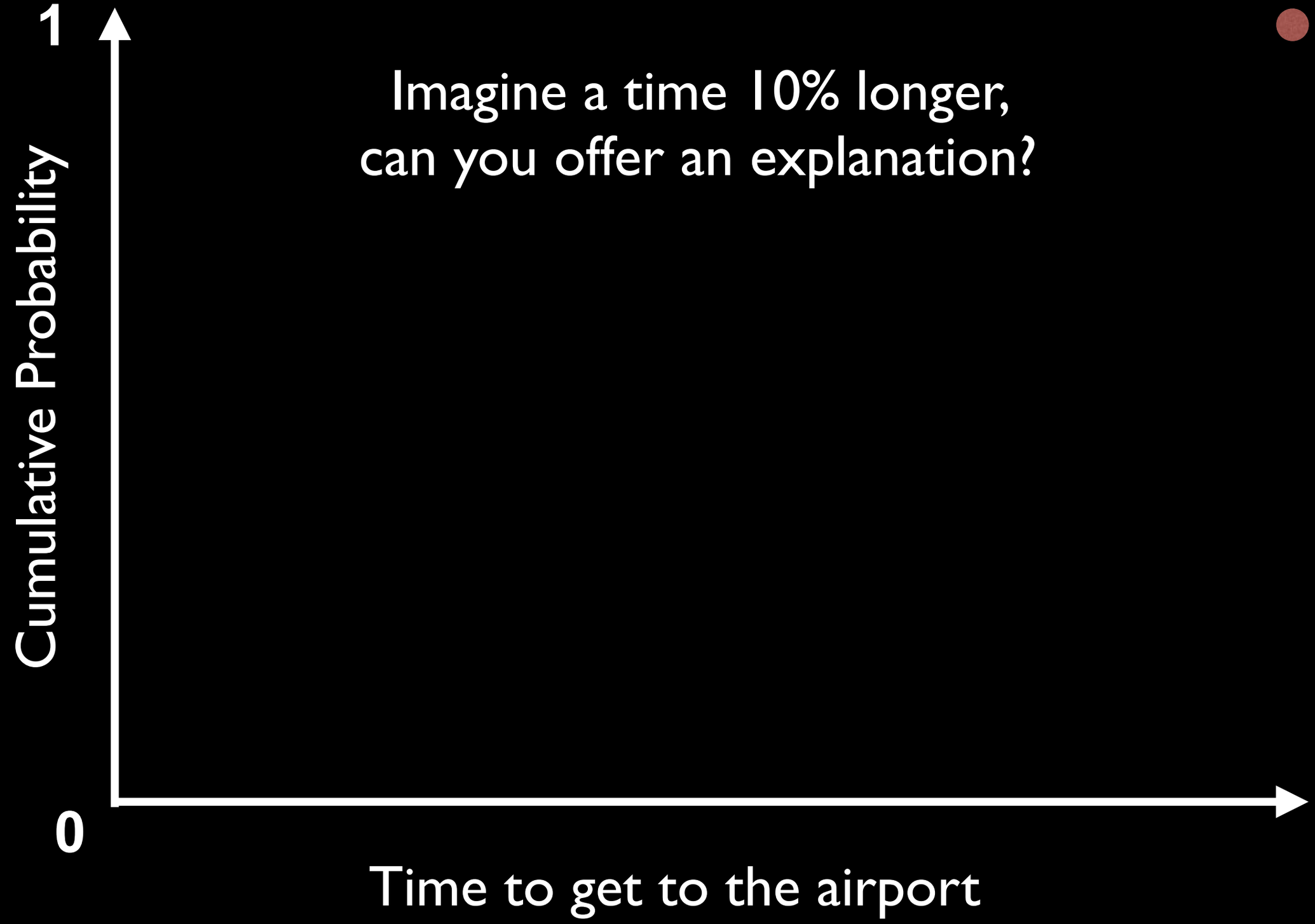
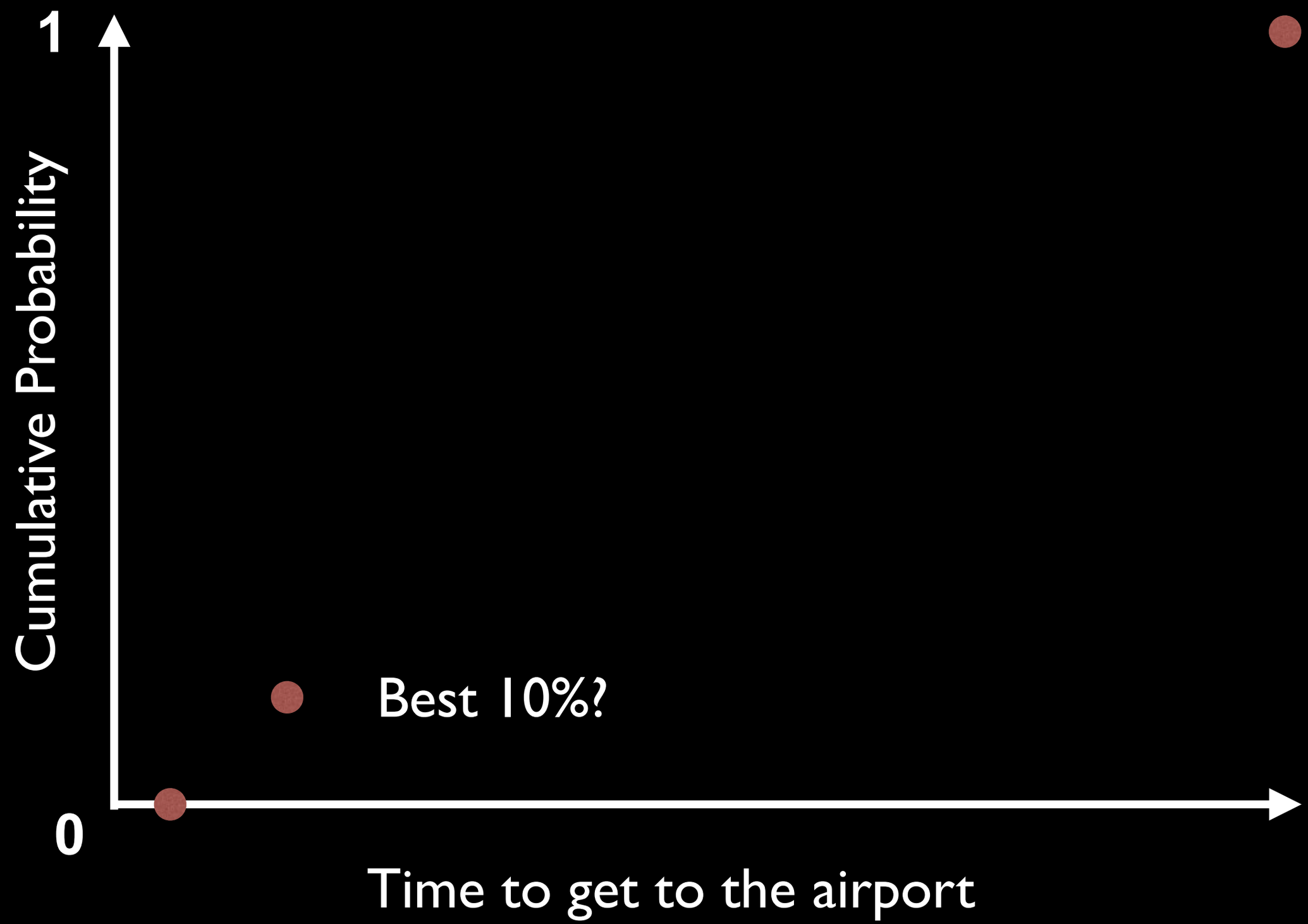


1
Cumulative Probability
0
Shortest possible time?
Time to get to the airport


1
Cumulative Probability
Best 10%?
0
Time to get to the airport

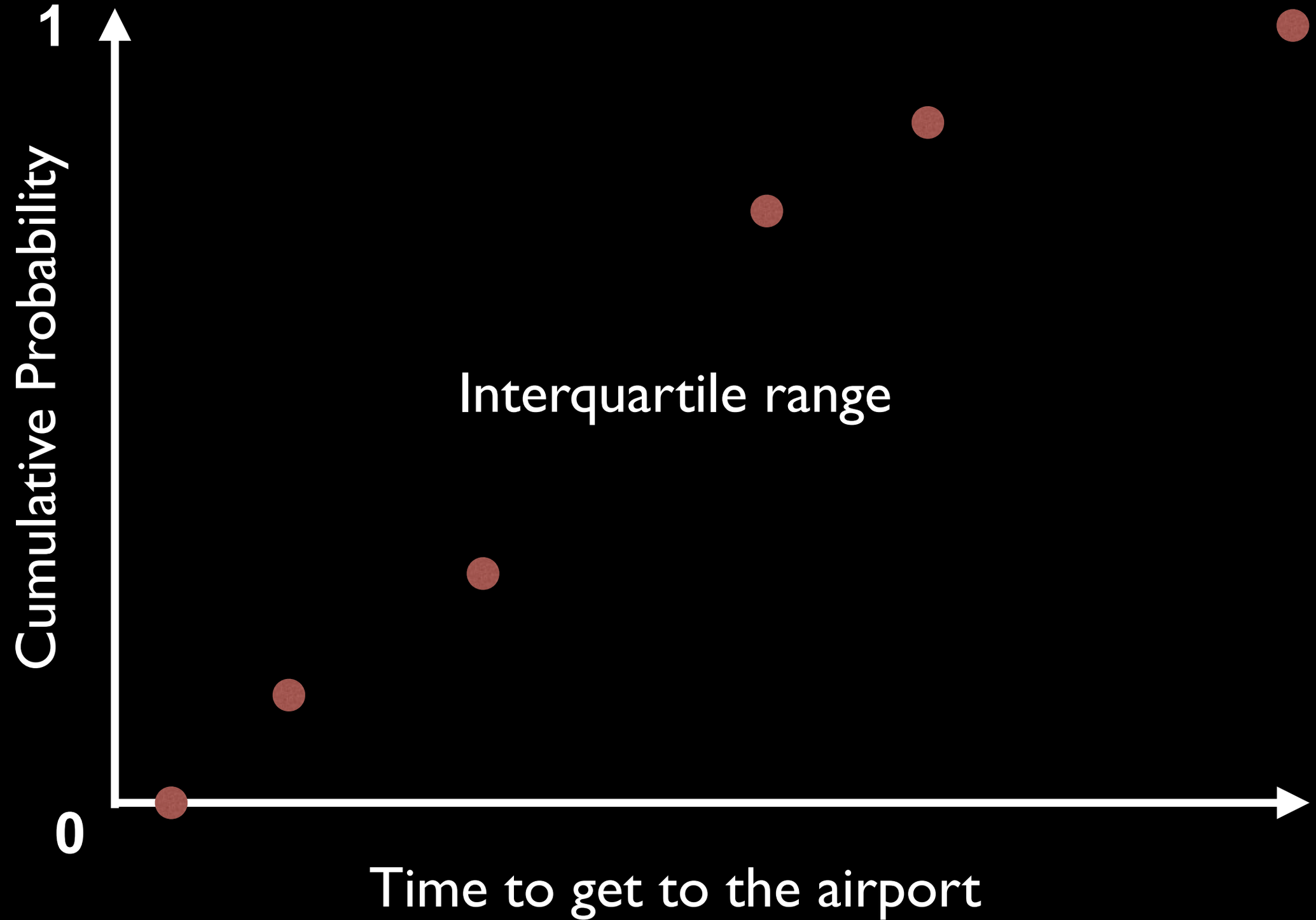
1

Cumulative Probability

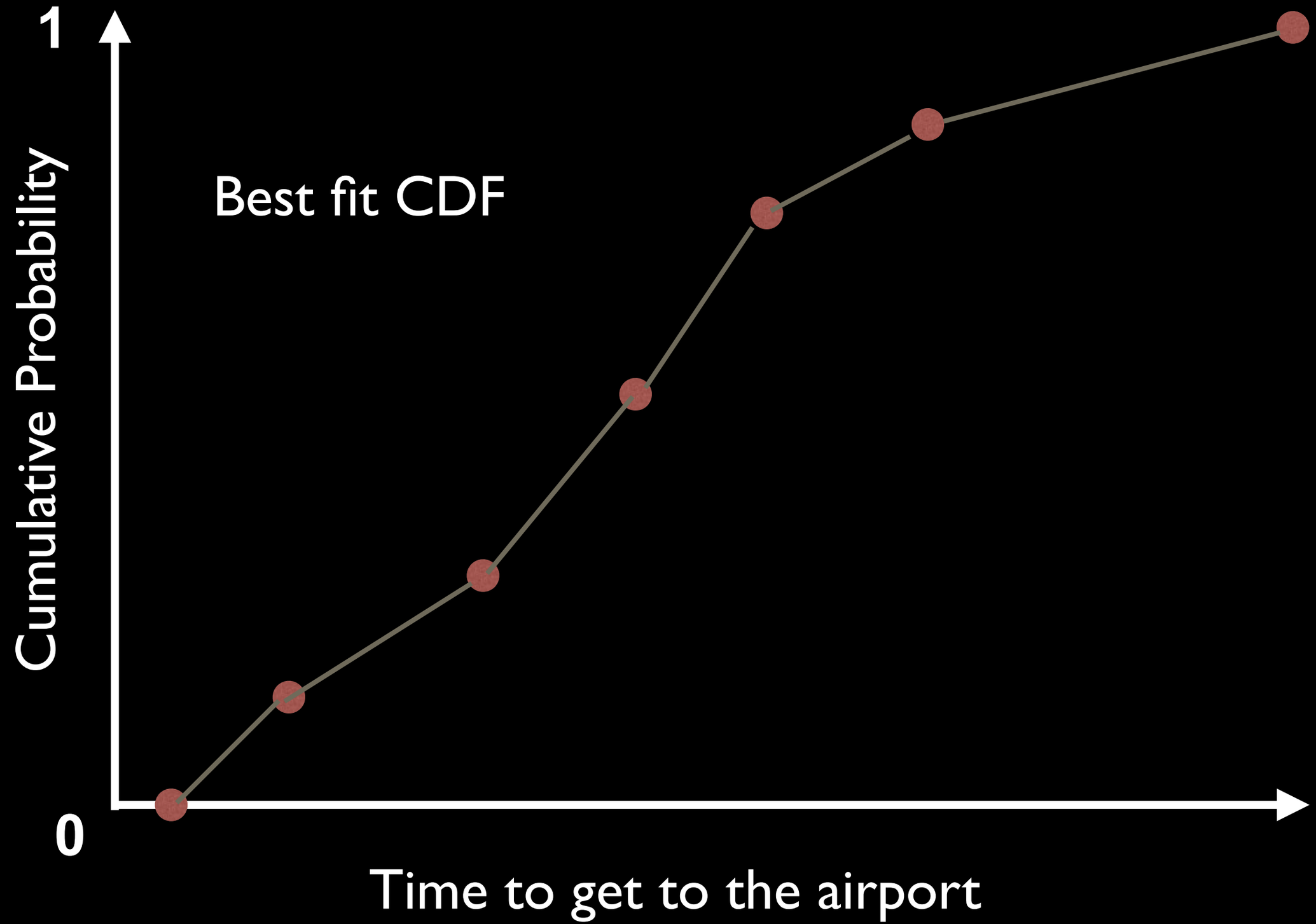
Worst 10%?

0

Time to get to the airport


1
Cumulative Probability
Interquartile range
0
Time to get to the airport

1
Cumulative Probability
0
Median (asked last)
Time to get to the airport


1
Cumulative Probability
Best fit CDF
0
Time to get to the airport