



@nileshtrivedi

“What passes for knowledge in ordinary life suffers from three defects: it is **cocksure**, **vague** and **self-contradictory**. The first step towards philosophy consists in becoming aware of these defects, not in order to rest content with a lazy scepticism, but in order to substitute an amended kind of knowledge which shall be **tentative**, **precise** and **self-consistent**.”

– *Bertrand Russell*

# **Prisoners' Dilemma**

**Can cooperation emerge naturally?**



0 5  
1 1



3 3



5 0





## GRUDGER



## TIT FOR TAT



**TIT FOR TAT**

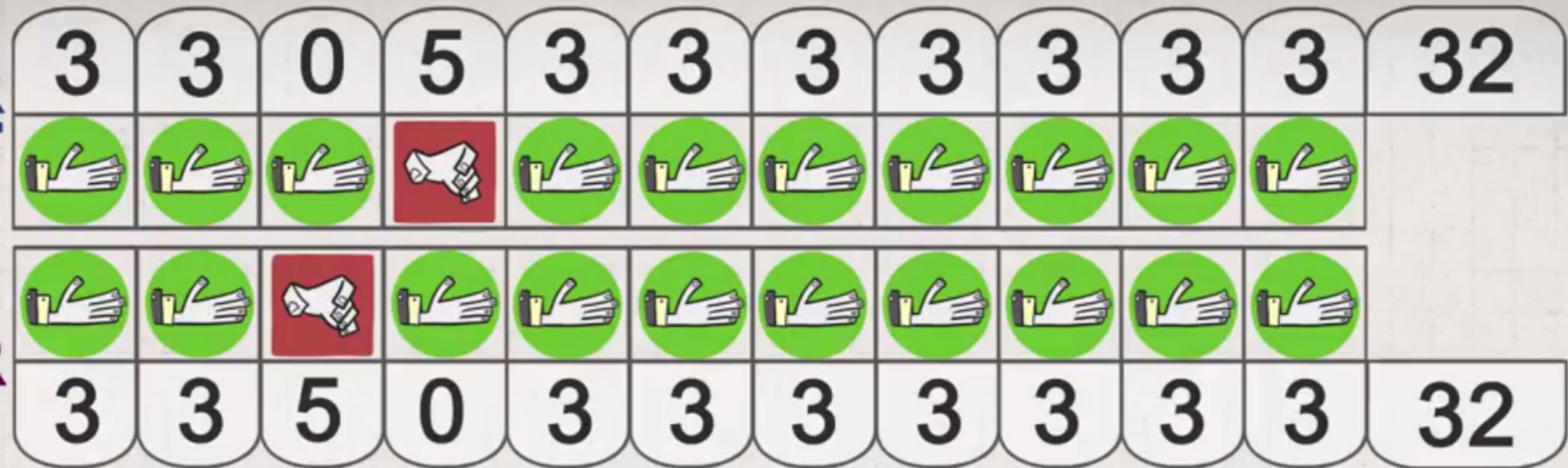


**JOSS**

**FORGIVING TIT FOR TAT**



**TIT FOR TAT**



**TESTER**

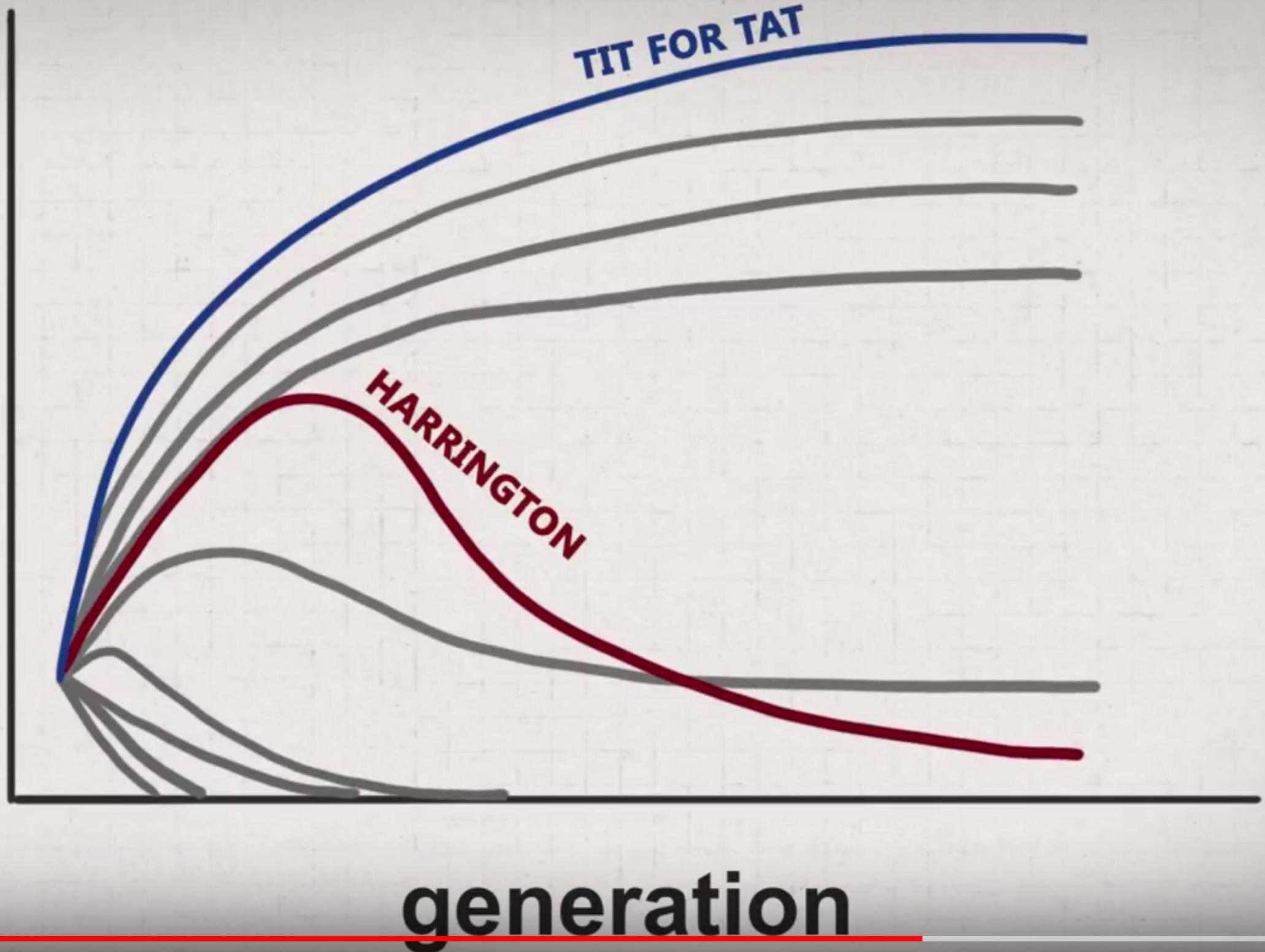
**FORGIVING  
TIT FOR TAT**



**TESTER**

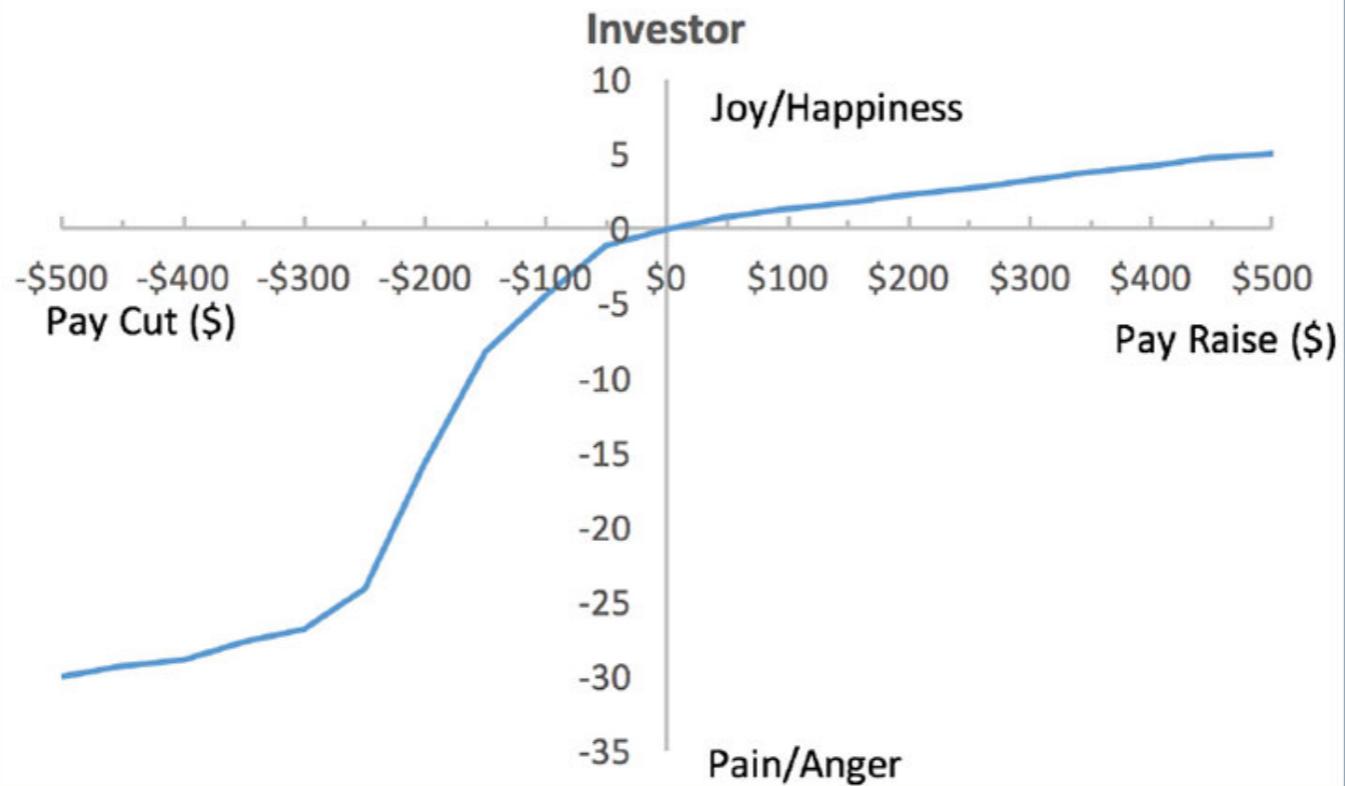


proportion  
of  
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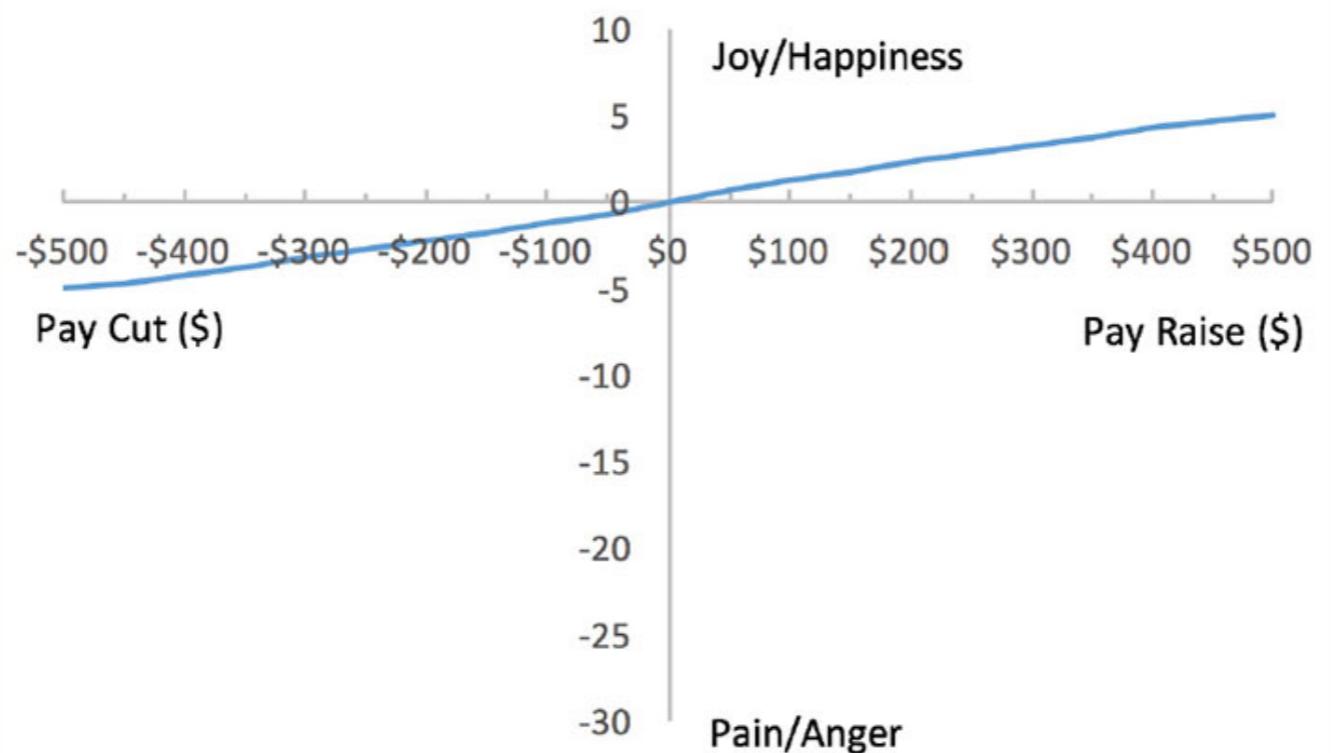


# **Loss Aversion**

**Figure 1: Sample Utility Function - Loss Averse**



**Figure 2: Sample Utility Function - Investor that is NOT Loss Averse**





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Given a fair coin toss (50-50 chances), where heads gives you PROFIT of 100Rs and tails gives you a LOSS of 120 Rs, is it RATIONAL to take this bet?

66% No, Always irrational

9% Yes, Always rational

25% It depends (on what?)

64 votes • Final results

11:05 PM - 28 Nov 2017



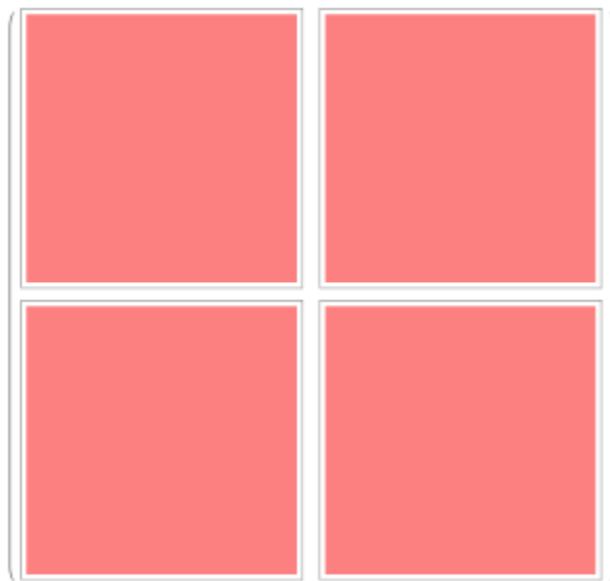
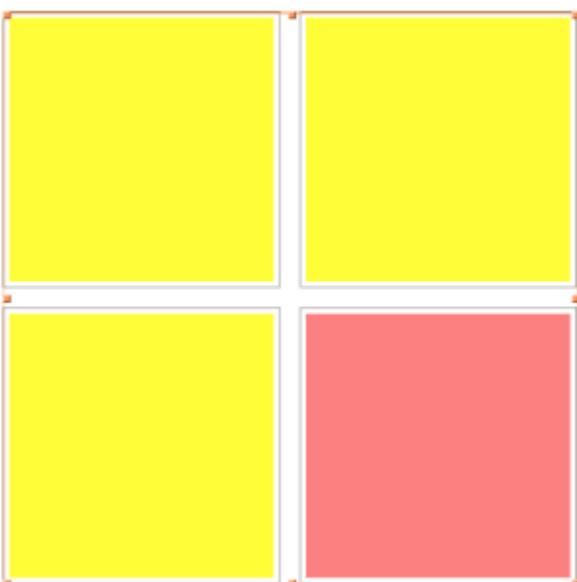
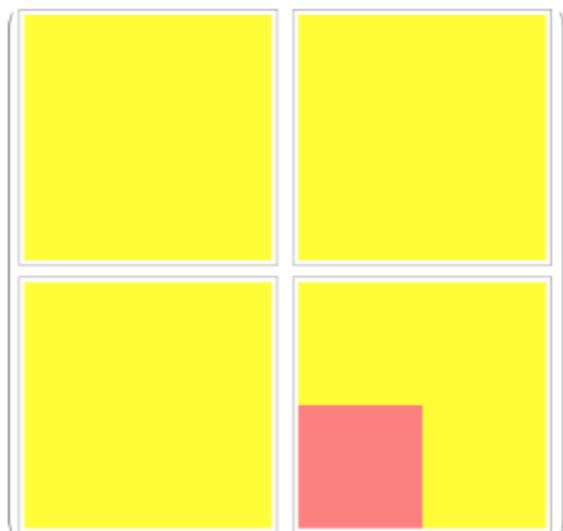
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- Your entire savings are \$1000
- I offer you a bet with 20% of chance of winning \$10,000
- The bet price is \$1000
- Expected value is \$1200
- Will you take this bet?

- If you are in a war and have very limited ammunition left, what's the best way to use it?
- Should we apply the same model to career, business & life?

# **Minority Rule**



# Optimal Stopping

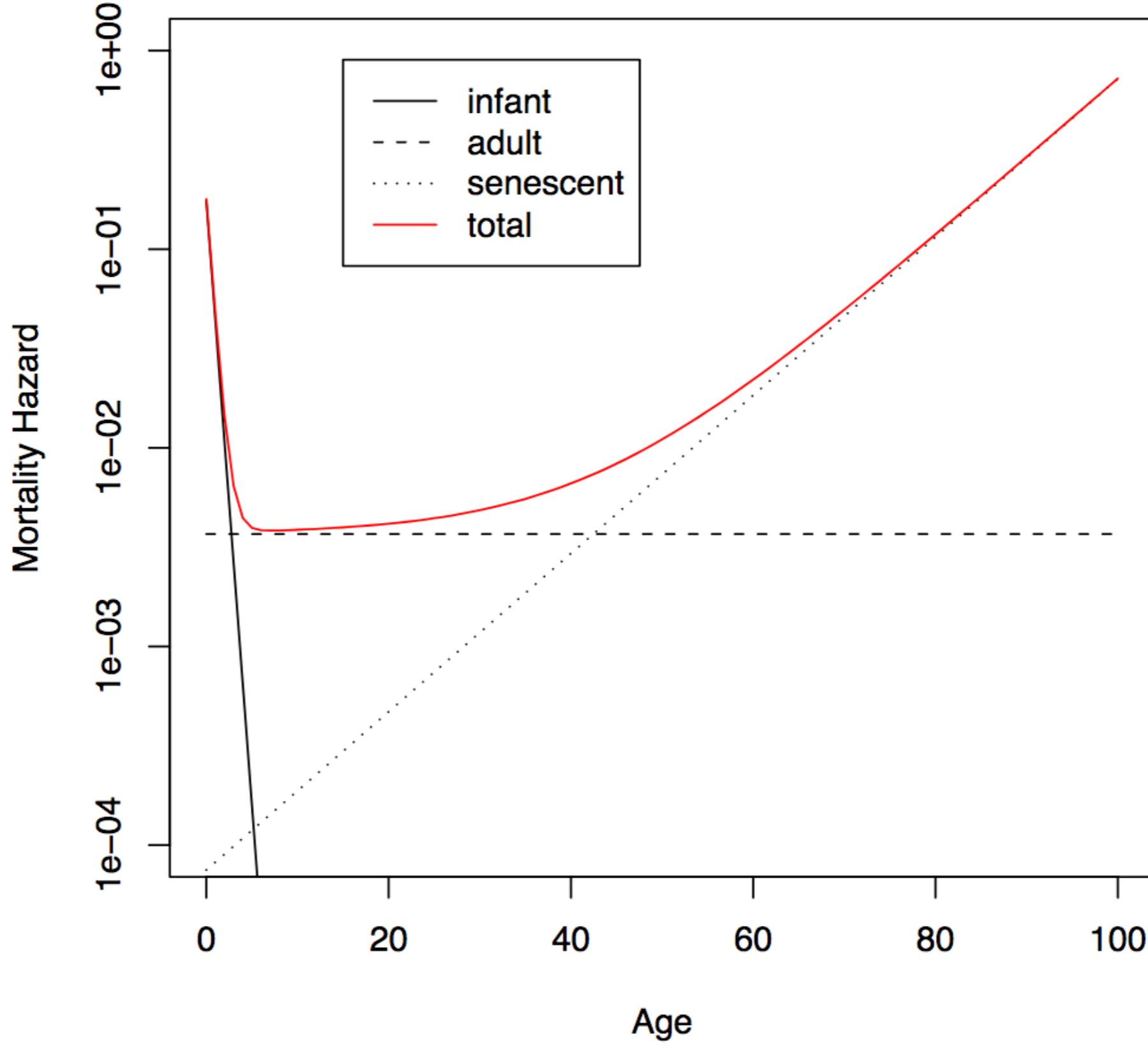
- You are looking for a house to rent.
- You can check one house in a day.
- You have time to check 30 houses.
- What's the ideal point when you should stop checking out and pick the next best one?

# Optimal Stopping

- Check out the first 37% and then pick the next one that's better than all you've seen

# **Survival Analysis**

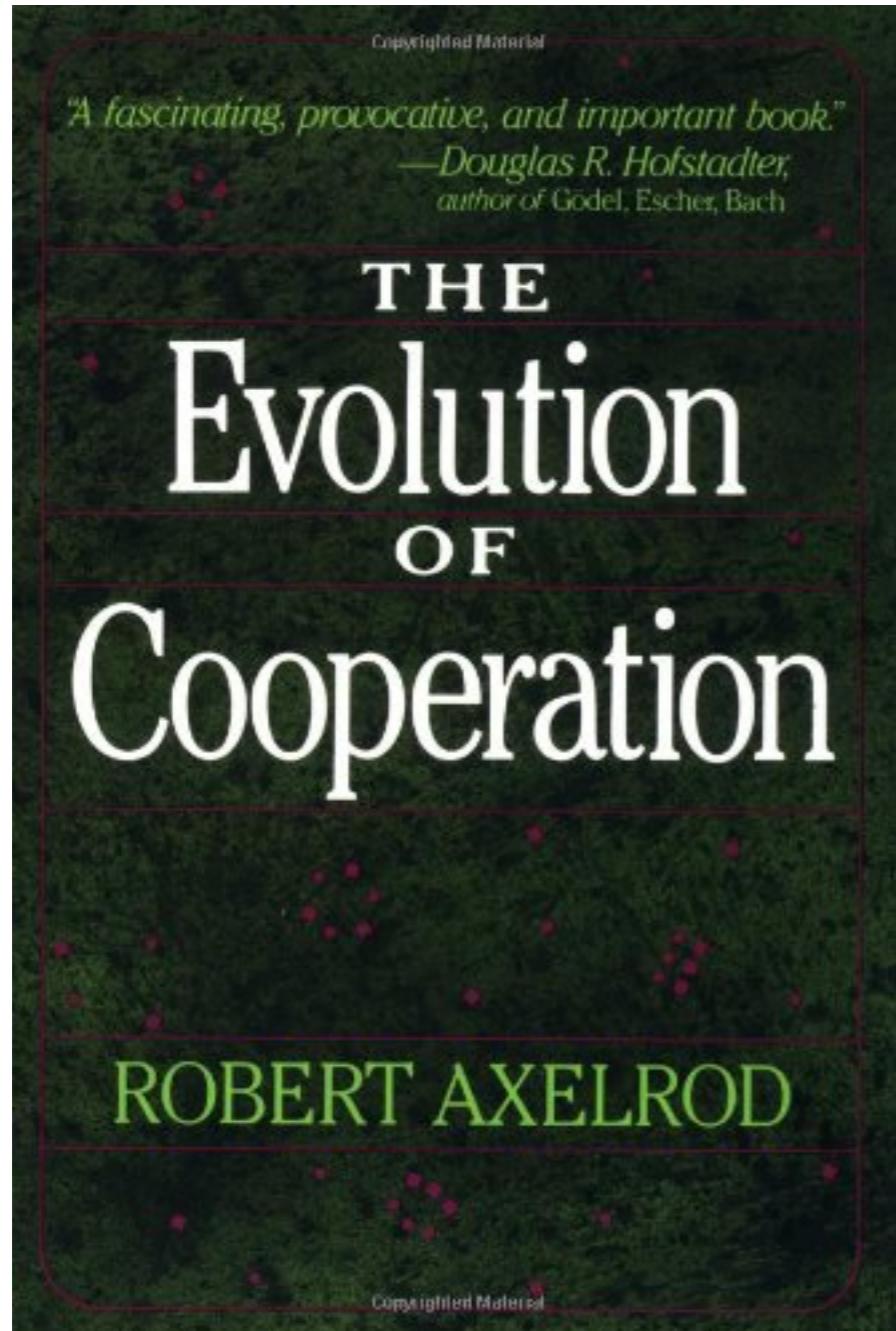
**Time To Failure**



$$h(x) = ae^{-bx} + c + de^{fx}$$

# How to live a good life?

- Given this mortality curve, what should be the ideal approach to “live a good life”?
- Live as if there is no tomorrow? Or plan?
- Acquire power v/s Exercise power?
- “There is time to learn, and then there is time to earn.”
- But most importantly, there should be time to play.



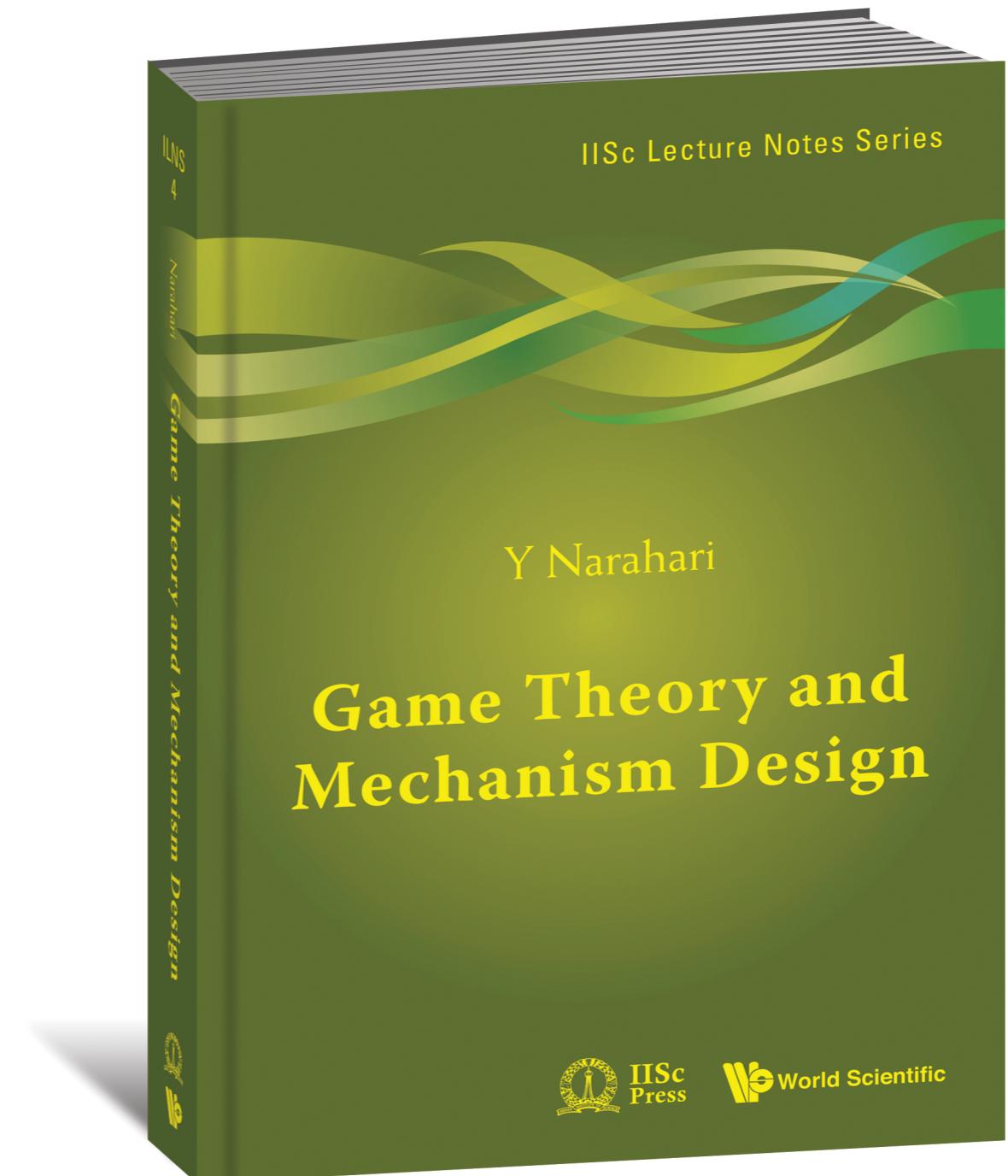
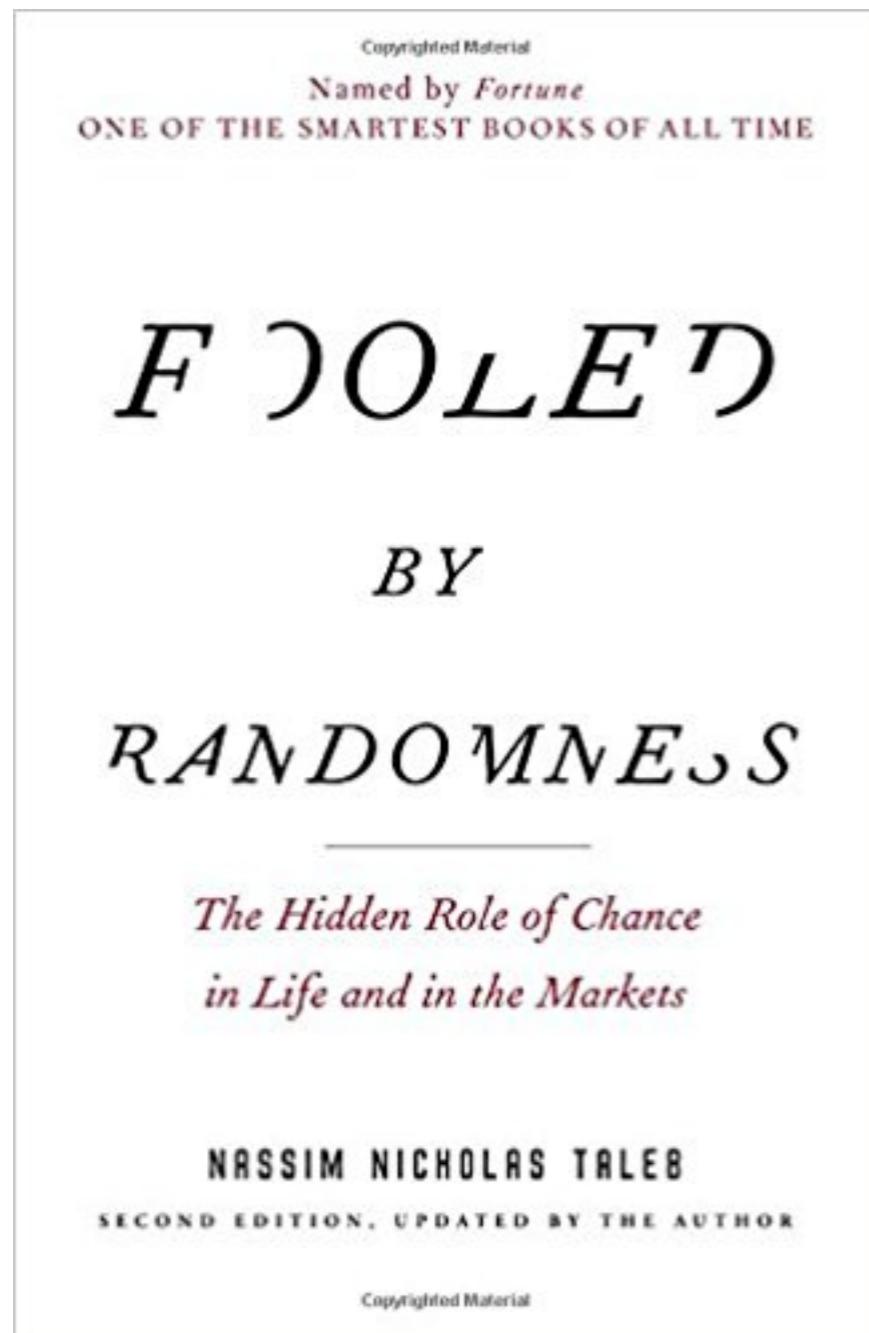
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# SIMPLE HEURISTICS THAT MAKE US SMART

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AND THE ABC RESEARCH GROUP

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