TTI VANGUARD
ADVANCED TECHNOLOGY RESEARCH MEMBERSHIP

Welcome to

Resilience

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Your Neighbors for the Next Two Days

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Who are we
and
what goes on here?

We are a membership organization for senior technologists.

We explore the art of the possible - new ideas, emerging technologies, and innovations.

We are on a journey of discovery and surprises.

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Vast Collective Wisdom in this Room

Greg Characklis

Peter Cochr

Chris Gilbert

Peter Guinto

Tian Li

Ike Nassi

Lew Knox

Executive Director

Kelly Baughman

Brooke Lowenhar

Nancy Kleinrock

Tony Shaw

Moderator

ALL MEMBERS

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Internet

Brent Critchfield

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Speak up and employ Netiquette

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The Big Pic[illegible] Bigger

It's a goldmine of useful and enchanting information!

which [illegible] every other Friday!

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An Amazing Adaptive Resilient Intelligent Agent

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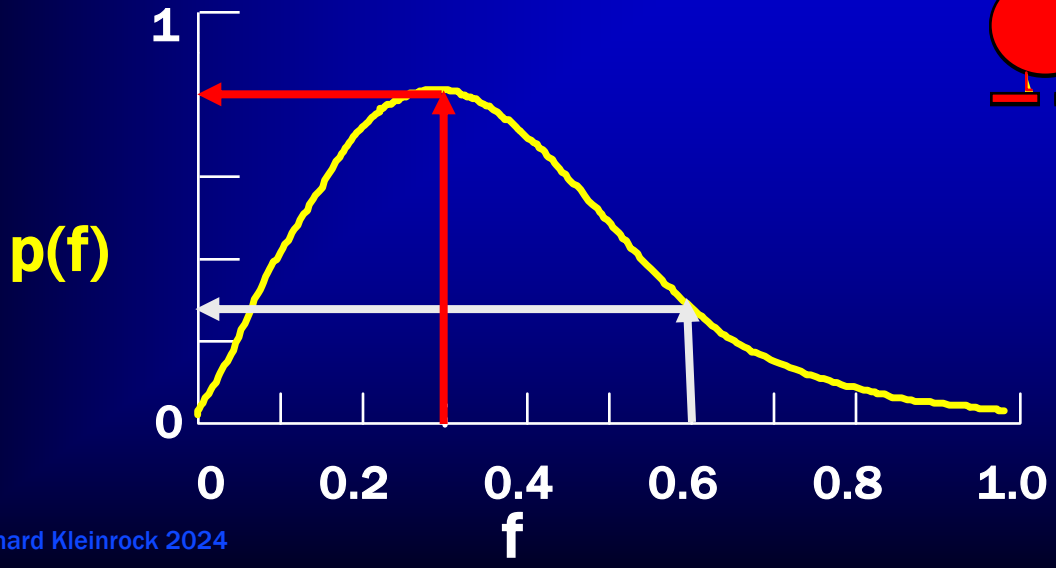
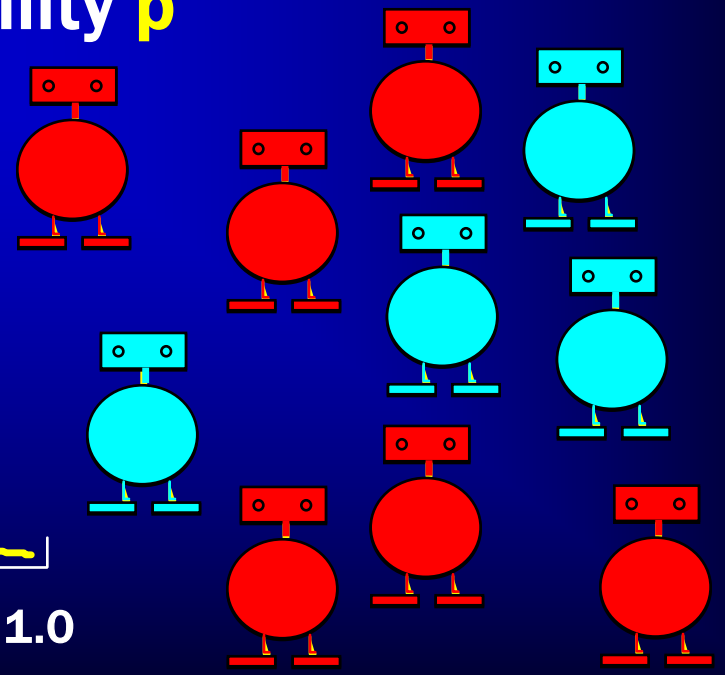
Consider a Collection of Adaptive Agents

1. A referee asks each agent to vote Yes or No
2. Each Agent independently votes Yes or No
3. A fraction f votes Yes
4. Using a function p(f) which is unknown to them, the referee gives (takes) $1 from each independently with probability p
5. Go to step 1 and repeat!





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Hmm…

No agent knows the fraction that vote Yes.
No agent knows the payoff function p(f).
The agents do not communicate with each other.

Can You Construct The Players to Seek the Optimum Behavior?

Yes !

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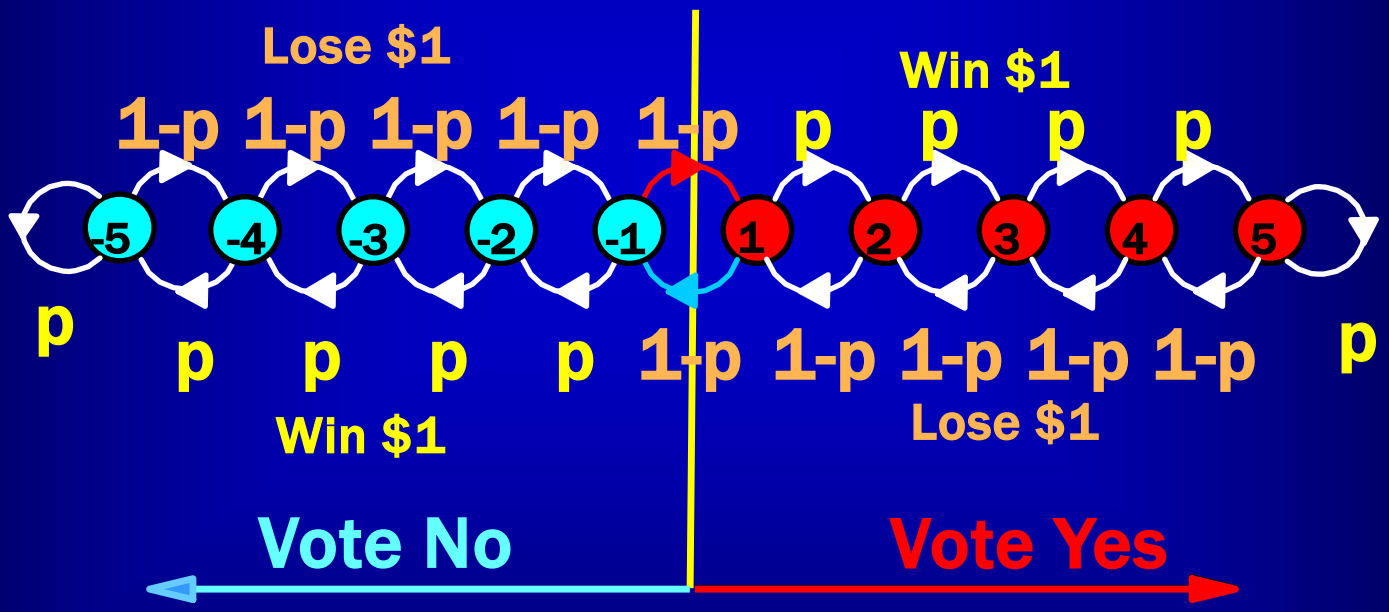
How Is It Done?

Design each player as a finite-state discrete-time automaton with 2N states



Reward => Edge seeking behavior
Punishment => Center seeking behavior

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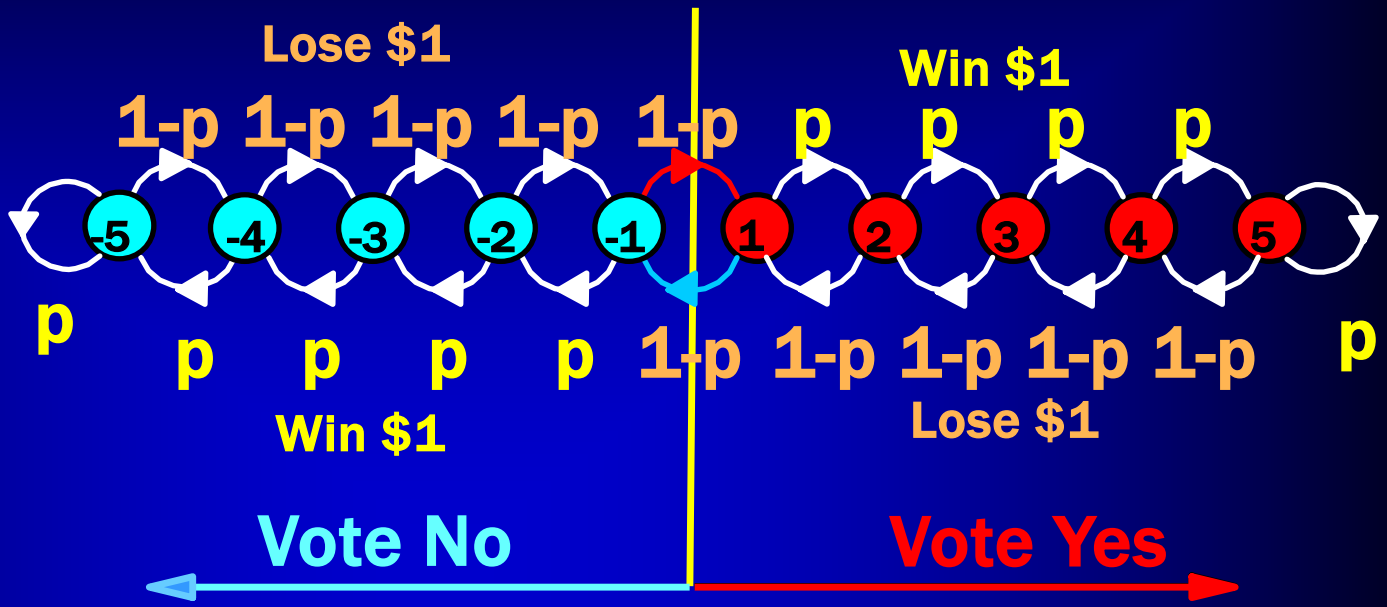

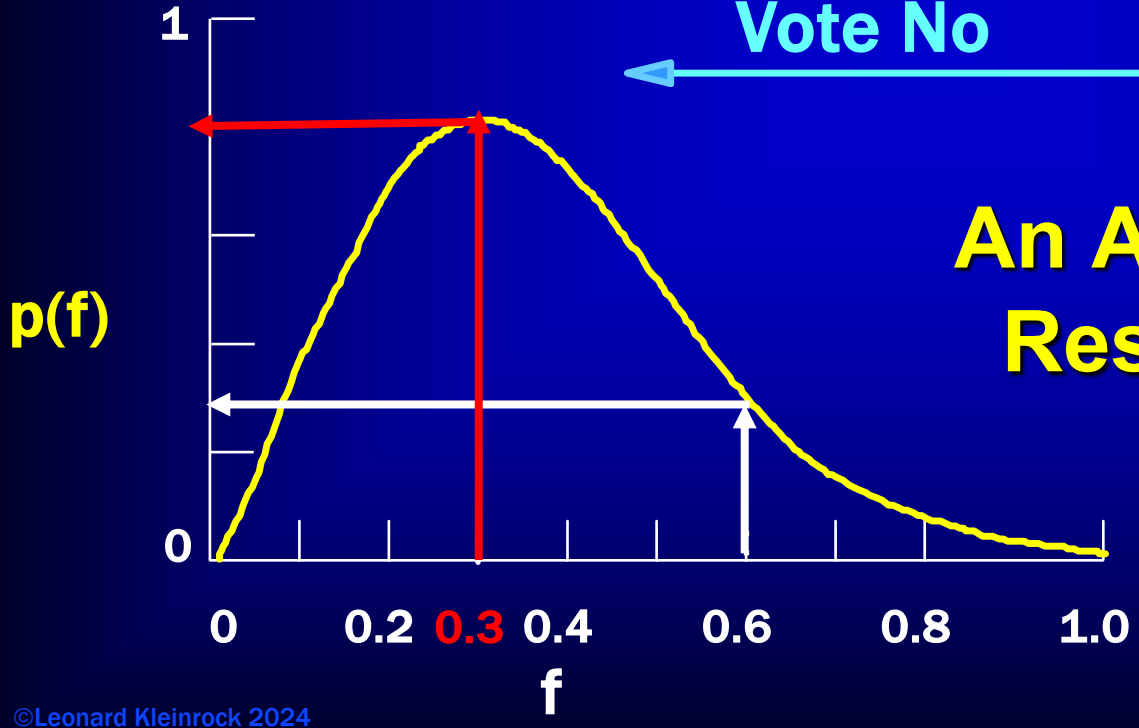

An Amazing Adaptive Resilient Intelligent Agent

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Let the Games Begin!

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