RSA CONFERENCE 2014
FEBRUARY 24 – 28 | MOSCONE CENTER | SAN FRANCISCO

Share.
Learn.
Secure.
Capitalizing on
Collective Intelligence

COGNITIVE INJECTION
Reprogramming the Situation-Oriented Human OS

SESSION ID: HUM-T09

Andy Ellis
CSO
Akamai
@csoandy

Why do people make “bad” decisions?

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Flashback: Risk Compensation

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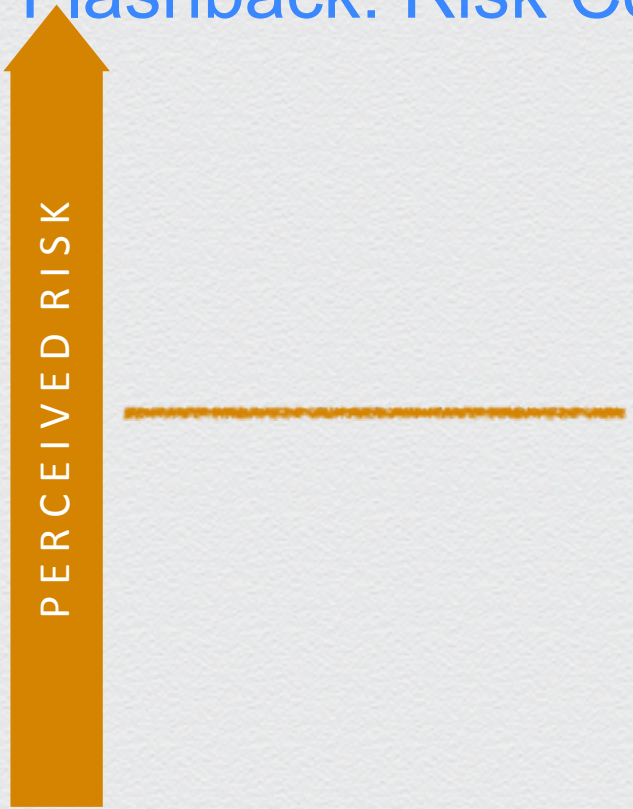
Flashback: Risk Compensation



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Flashback: Risk Compensation

PERCEIVED RISK

RISK REDUCTION

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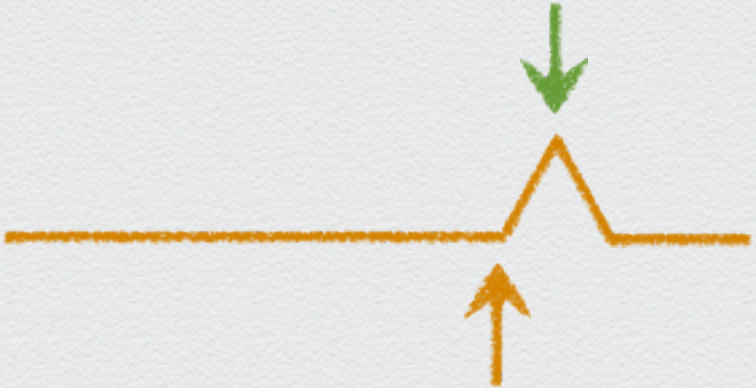
Flashback: Risk Compensation

PERCEIVED RISK



RISK REDUCTION

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Flashback: Risk Compensation

PERCEIVED RISK

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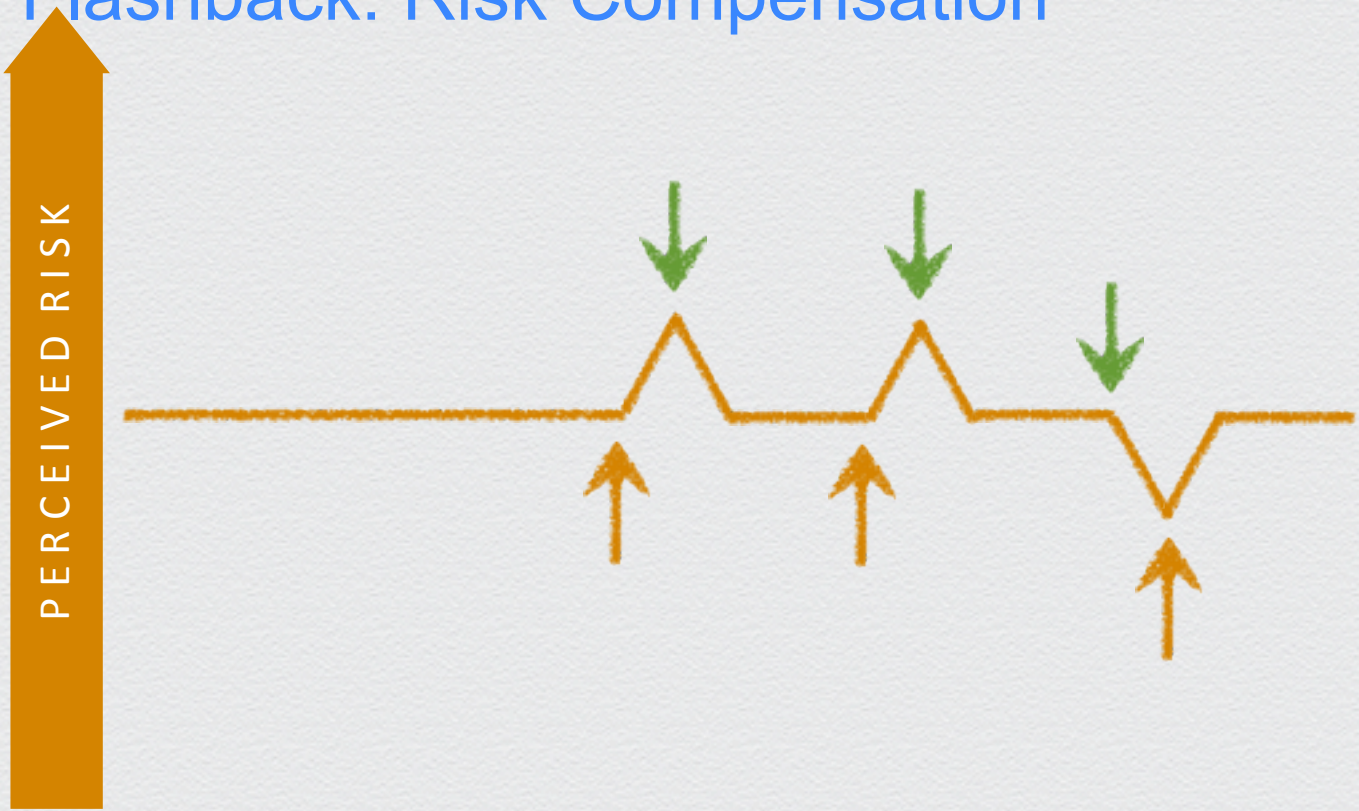

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Historical paranoia

"Monkey on rope ladder" © CC-BY-SA 2010 Rachel Coleman Finch

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Dilemma of the Prisoner's Dilemma

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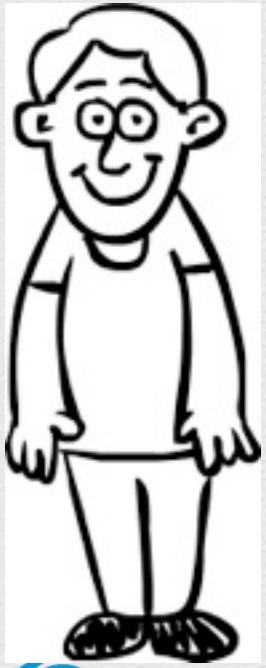

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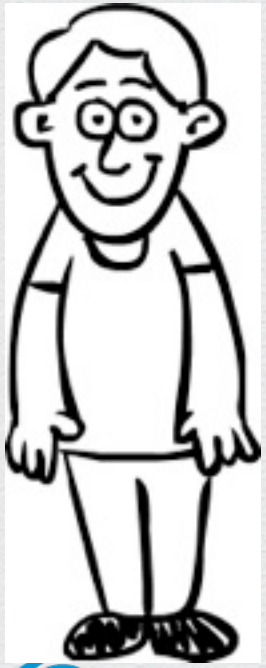

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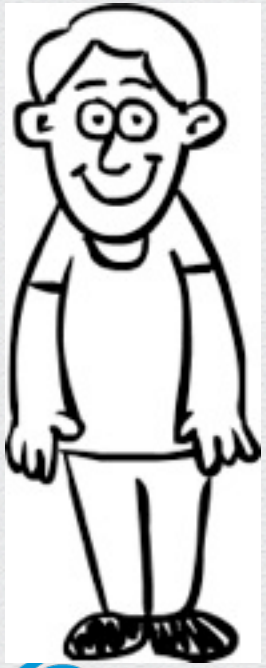

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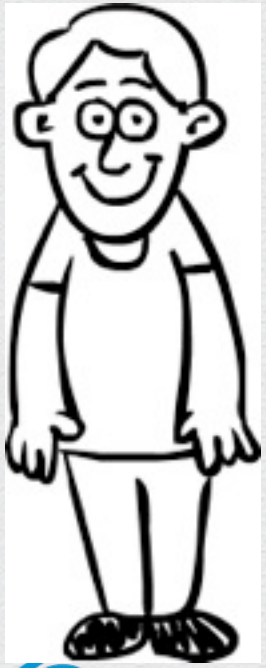

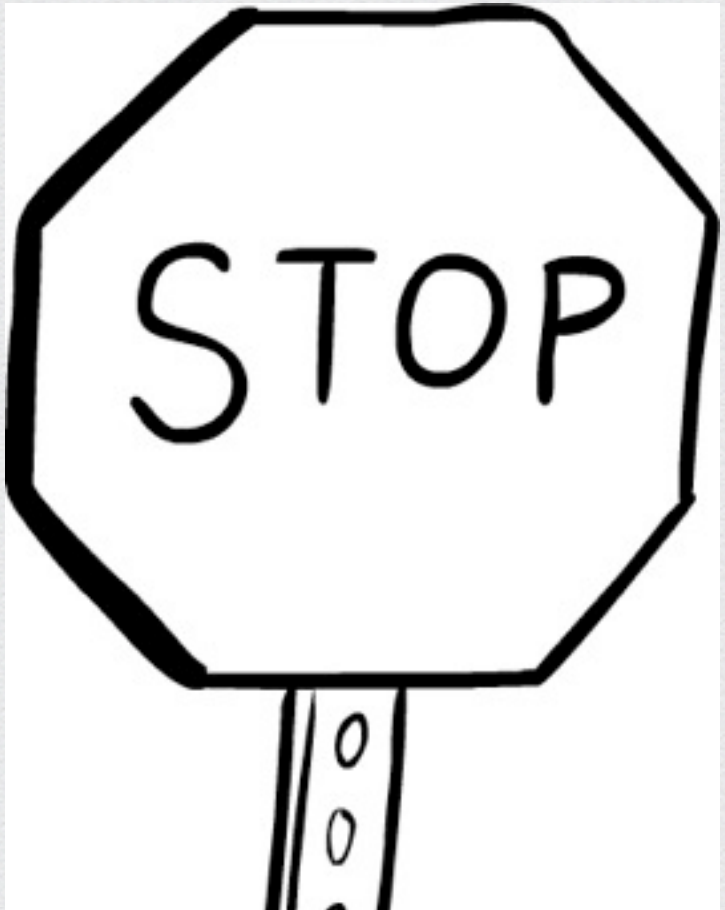

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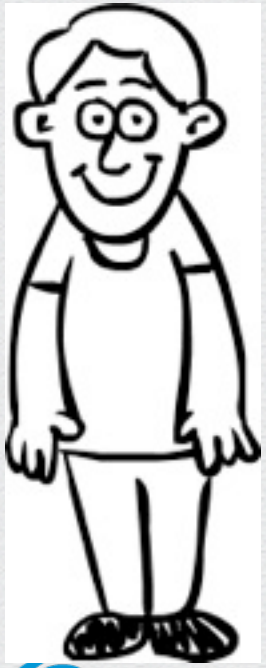

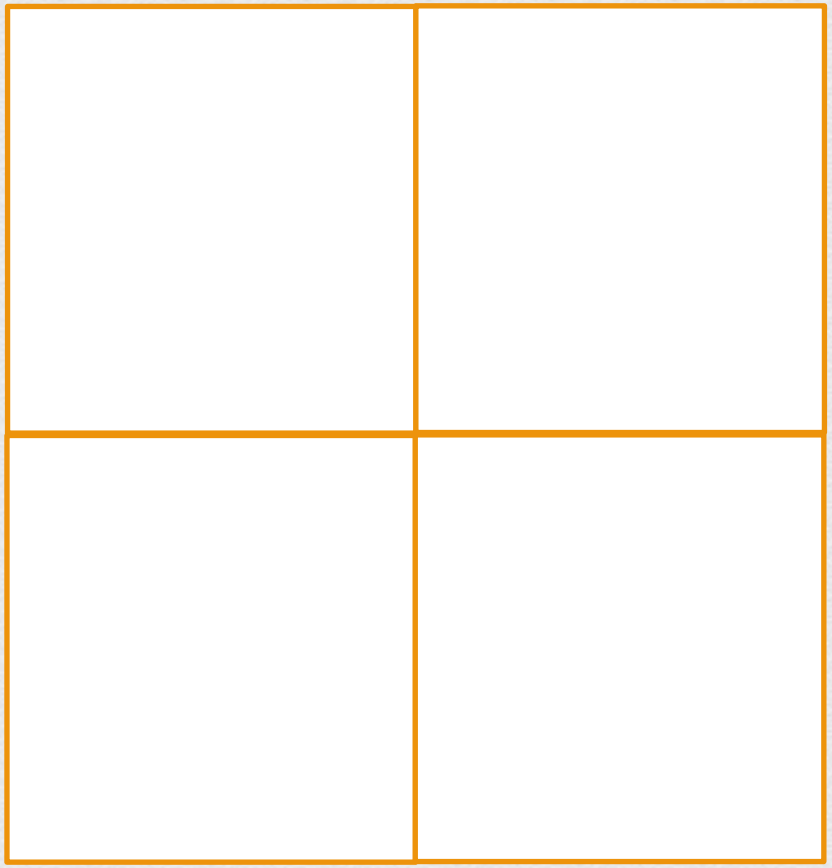

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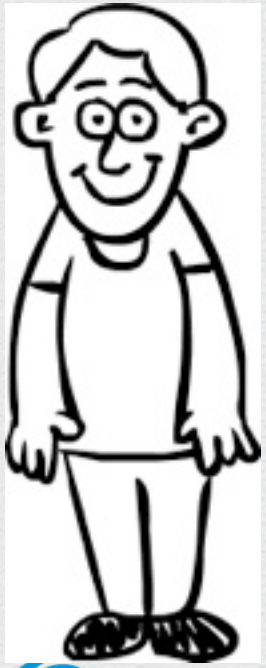

	Cooperate	Cheat

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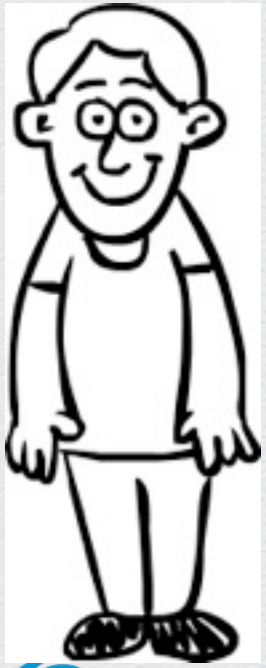

	Cooperate	Cheat
Cooperate		
Cheat		

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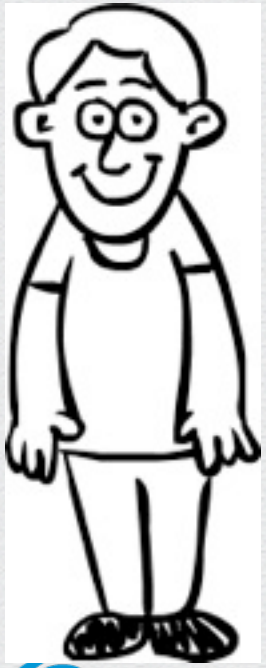
Dilemma of the Prisoner's Dilemma



	Cooperate	Cheat
Cooperate	-3	
Cheat		

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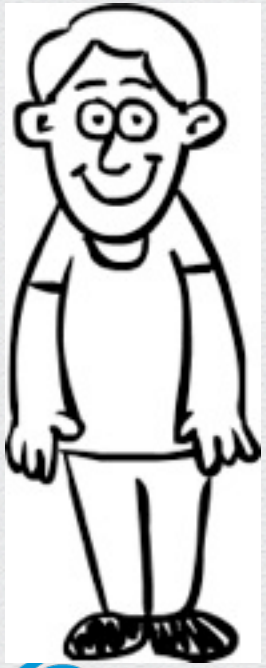

	Cooperate	Cheat
Cooperate	-3	
Cheat	-10	

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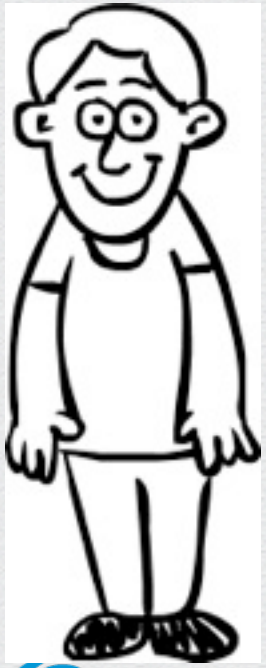
Dilemma of the Prisoner's Dilemma



	Cooperate	Cheat
Cooperate	-3	-1
Cheat	-10	

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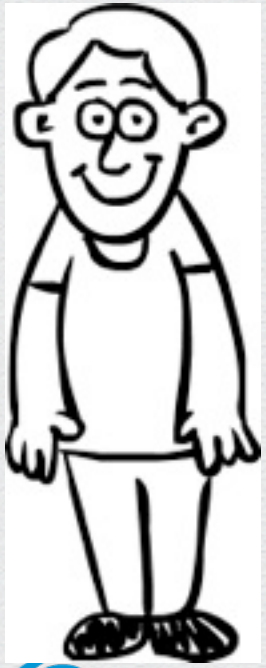

	Cooperate	Cheat
Cooperate	-3	-1
Cheat	-10	-5

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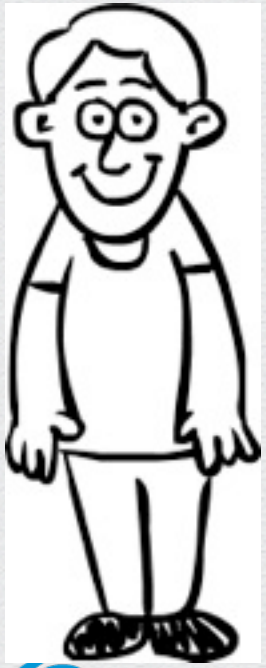
Dilemma of the Prisoner's Dilemma



	Cooperate	Cheat
Cooperate	-3 / -3	-1 / -10
Cheat	-10 / -1	-5 / -5

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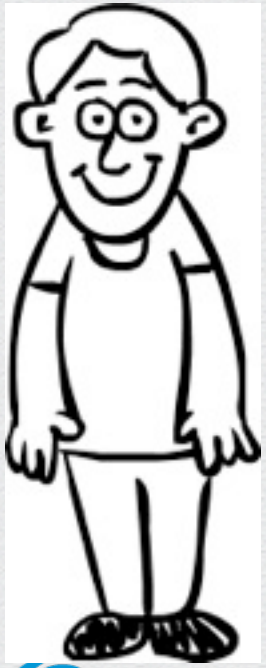

	Cooperate	Cheat
Cooperate	-3, -3	-1, -10
Cheat	-10, -1	-5, -5

2/3 of the time!

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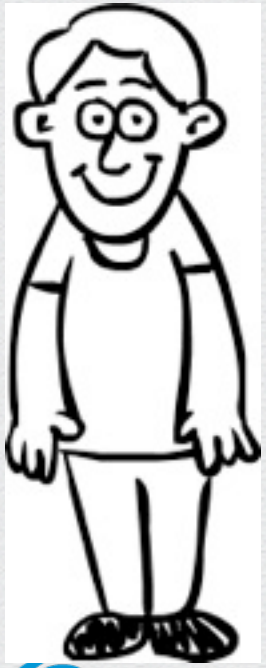

	Cooperate	Cheat
Cooperate	-3 / -3	-1 / -10
Cheat	-10 / -1	-5 / -5

2/3 of the time!

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Why do people make “bad” decisions?

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Why do people make “bad” decisions?

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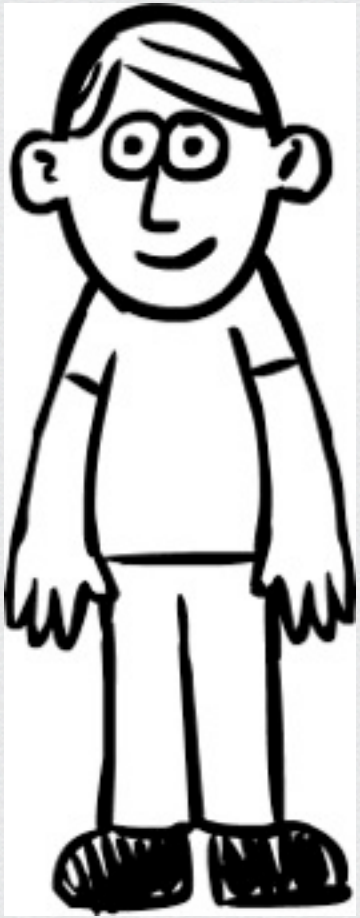
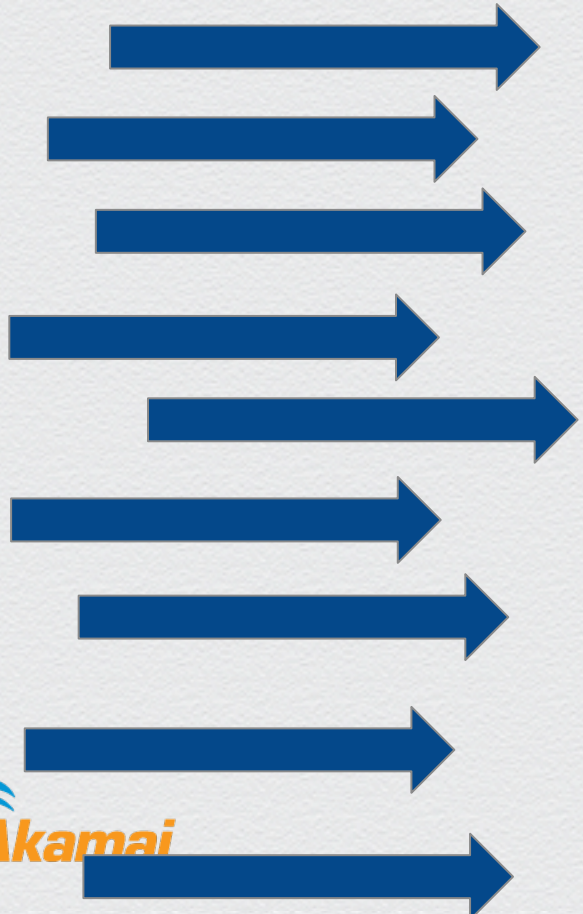
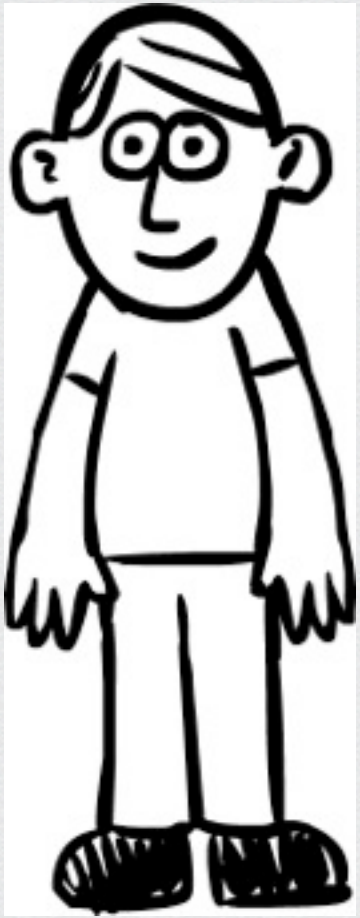
System 1: The Fast, Lizard Brain

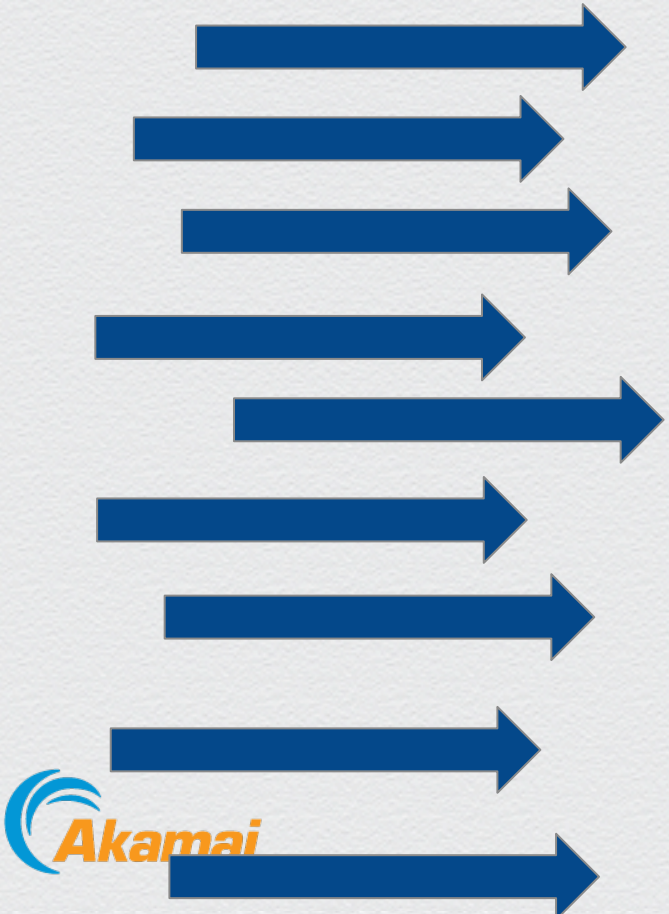


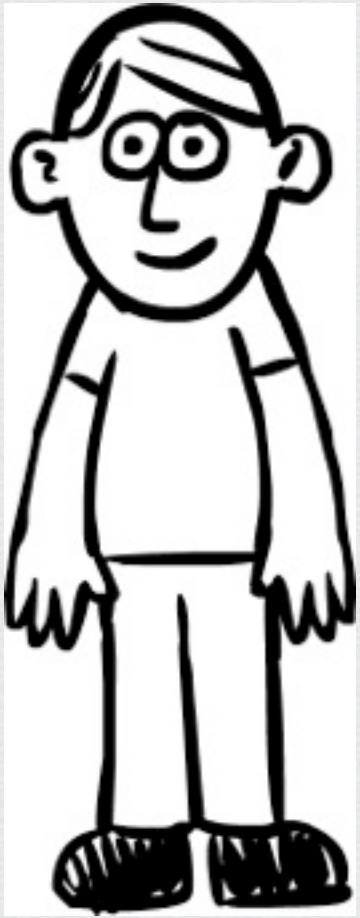
System 1: The Fast, Lizard Brain



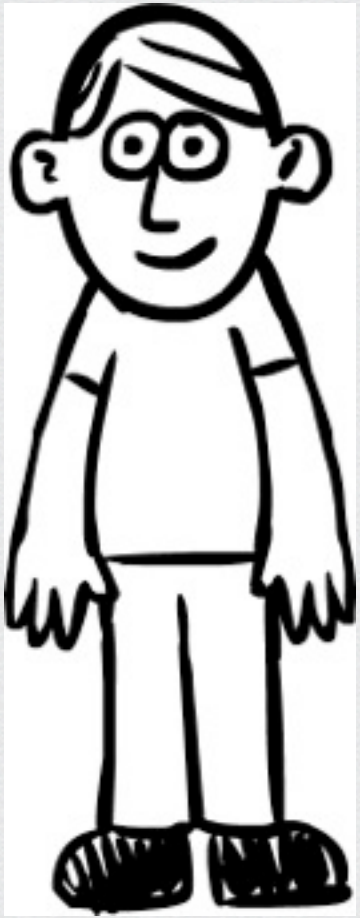


System 1: The Fast, Lizard Brain





System 1 thrives on stereotypes



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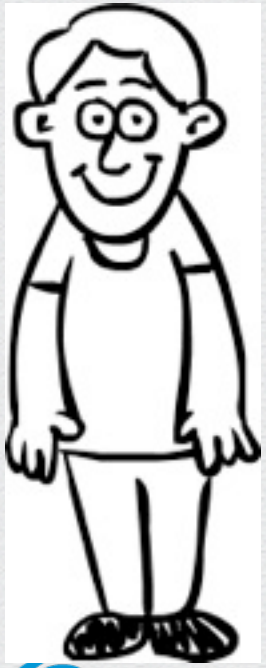

	Cooperate	Cheat
Cooperate	-3 / -3	-1 / -10
Cheat	-10 / -1	-5 / -5

2/3 of the time!

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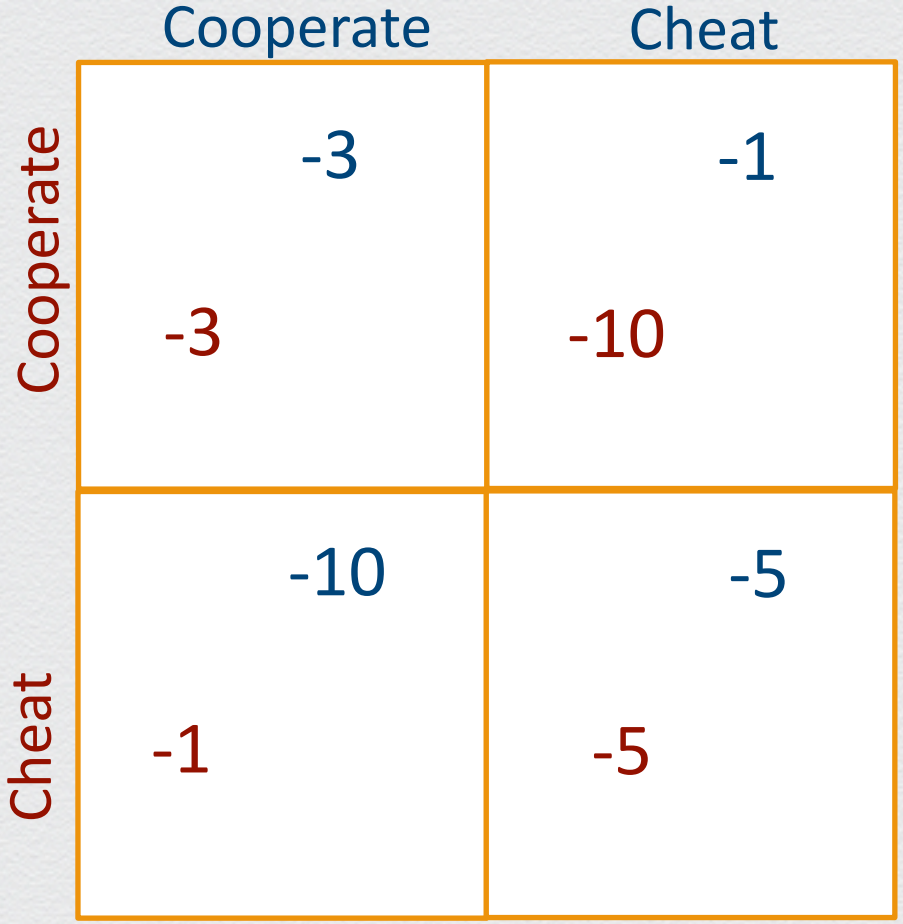
Dilemma of the Prisoner's Dilemma



Dilemma of the Prisoner's Dilemma

	Cooperate	Cheat
Cooperate	-3 -3	-1 -10
Cheat	-10 -1	-5 -5

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Dilemma of the Prisoner's Dilemma

2/3 of the time!

	Cooperate	Cheat
Cooperate	-3, -3	-1, -10
Cheat	-10, -1	-5, -5

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Dilemma of the Prisoner's Dilemma

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Dilemma of the Prisoner's Dilemma

System 2: Active processing

System 2: Active processing

LEFT

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System 2: Active processing

LEFT

RIGHT

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System 2: Active processing

LEFT

LEFT

RIGHT

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System 2: Active processing

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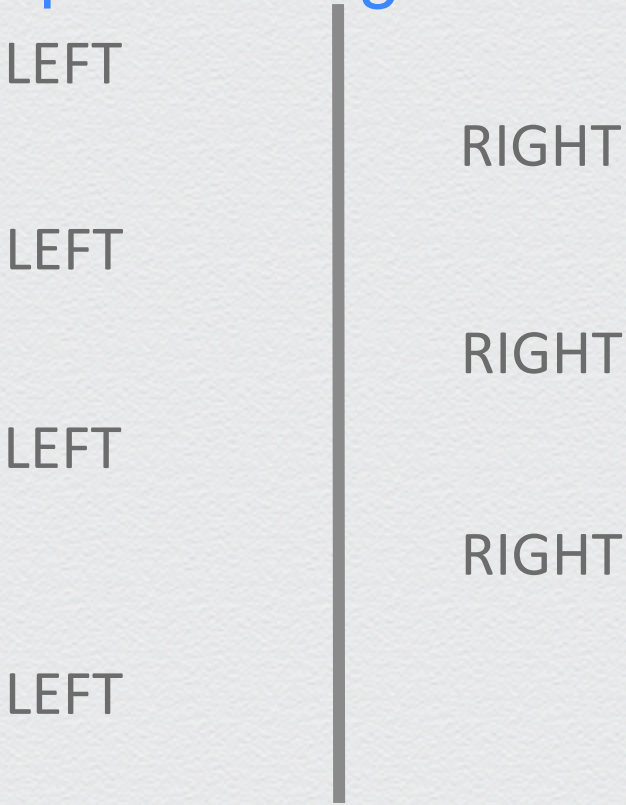

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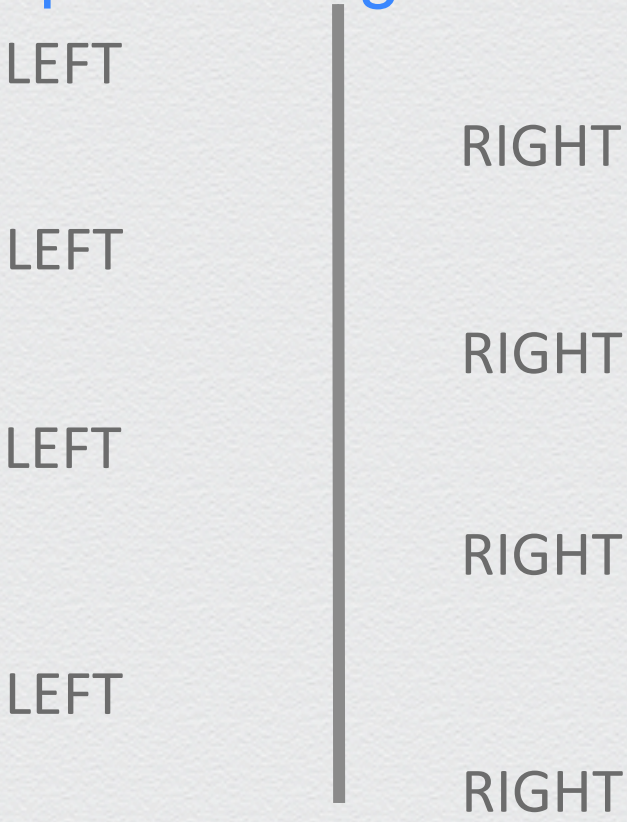

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System 2: Active processing

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LEFT

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Akamai

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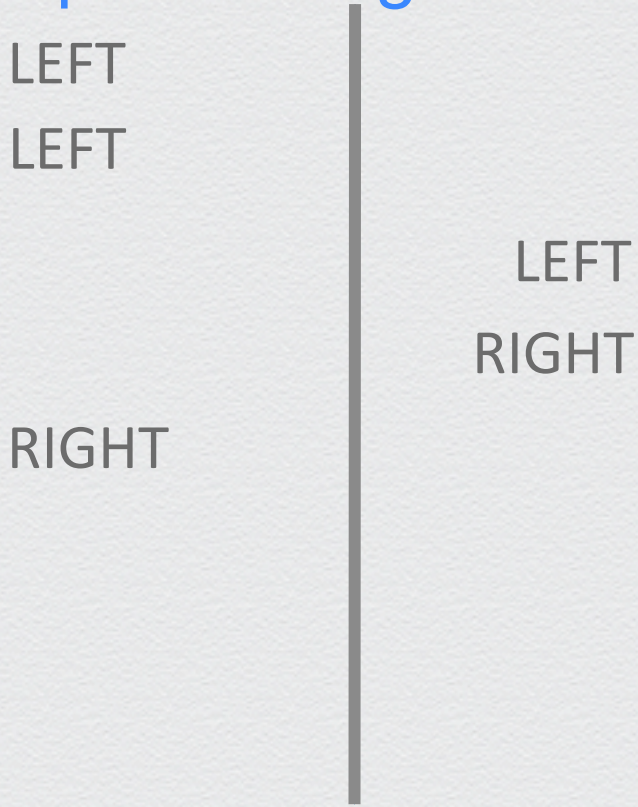

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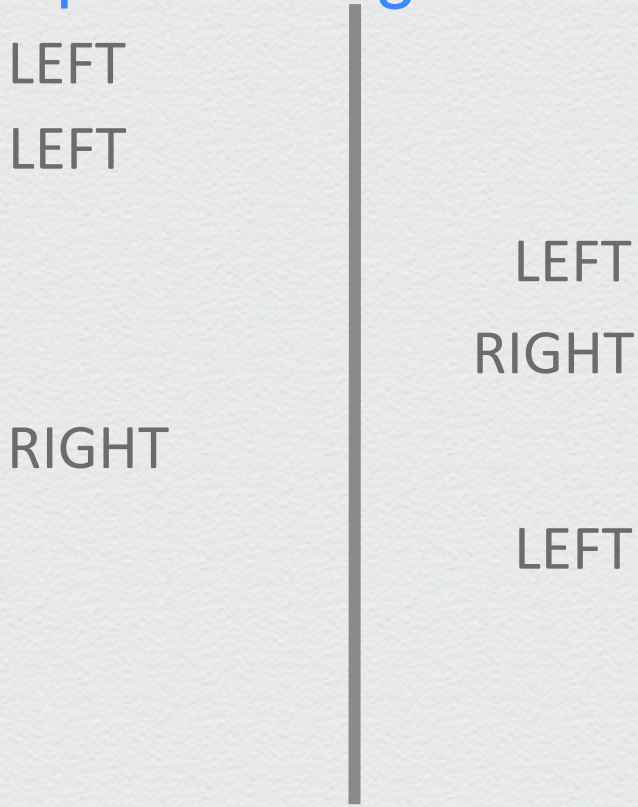

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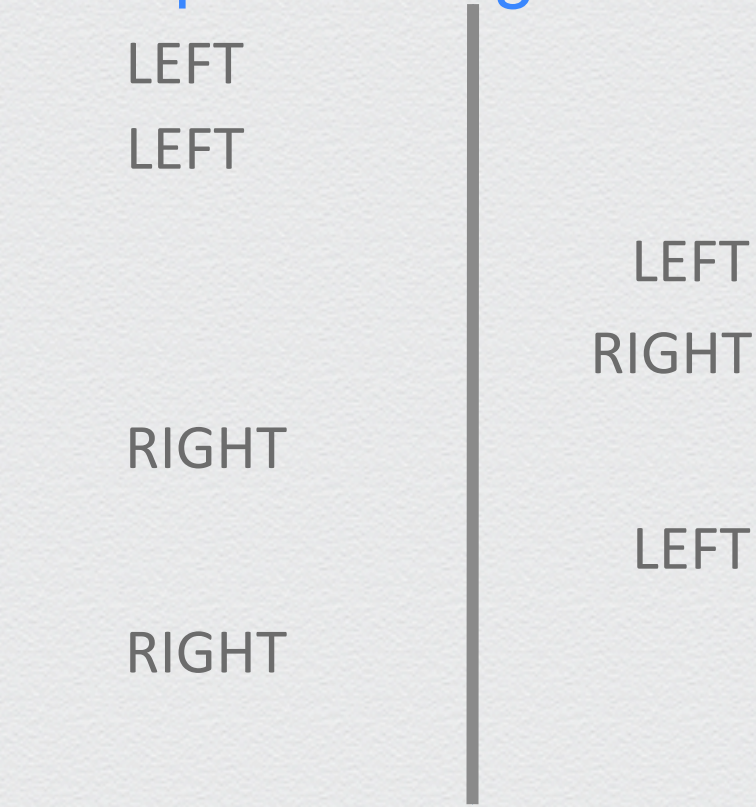

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System 2: Active processing

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Why do people make “bad” decisions?

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The Schemata of System 1

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The Schemata of System 1

Annual Security Awareness Training is required by all employees to ensure your compliance with the security policies of the company while conducting your daily tasks in furtherance of our goals to protect company data, systems, and information against malfeasance, adversarial action, and other systemic failures that might be introduced by an inattention to appropriate risk management activities or non-compliance with industry standard best practices as laid out in various control frameworks such as ISO 27002, PCI, HIPAA, SOX, SSAE-16, NIST 800-53, FedRAMP…

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What can you do?

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What can you do?

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New rules to the attention-starved

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New rules to the attention-starved

Don’t model business partners as adversaries

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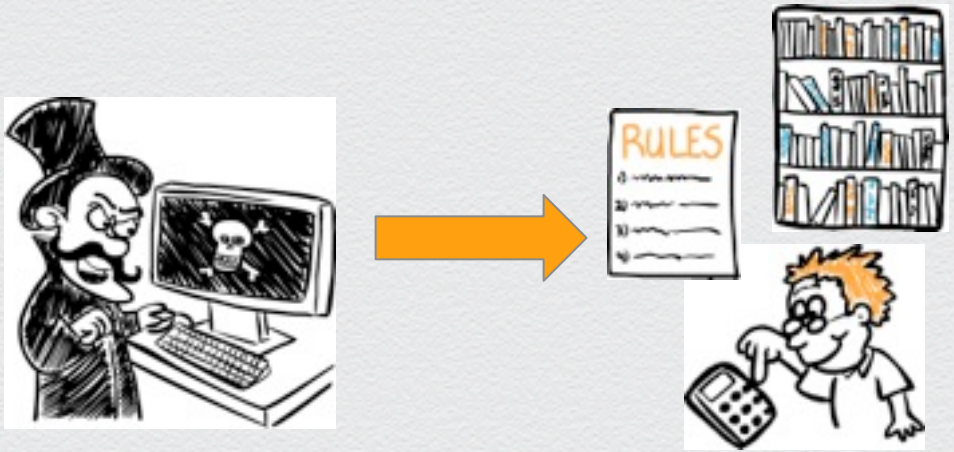
Don’t model business partners as adversaries



Don’t model business partners as adversaries

Further Reading:

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