



General Deterrence Theory and the Individual

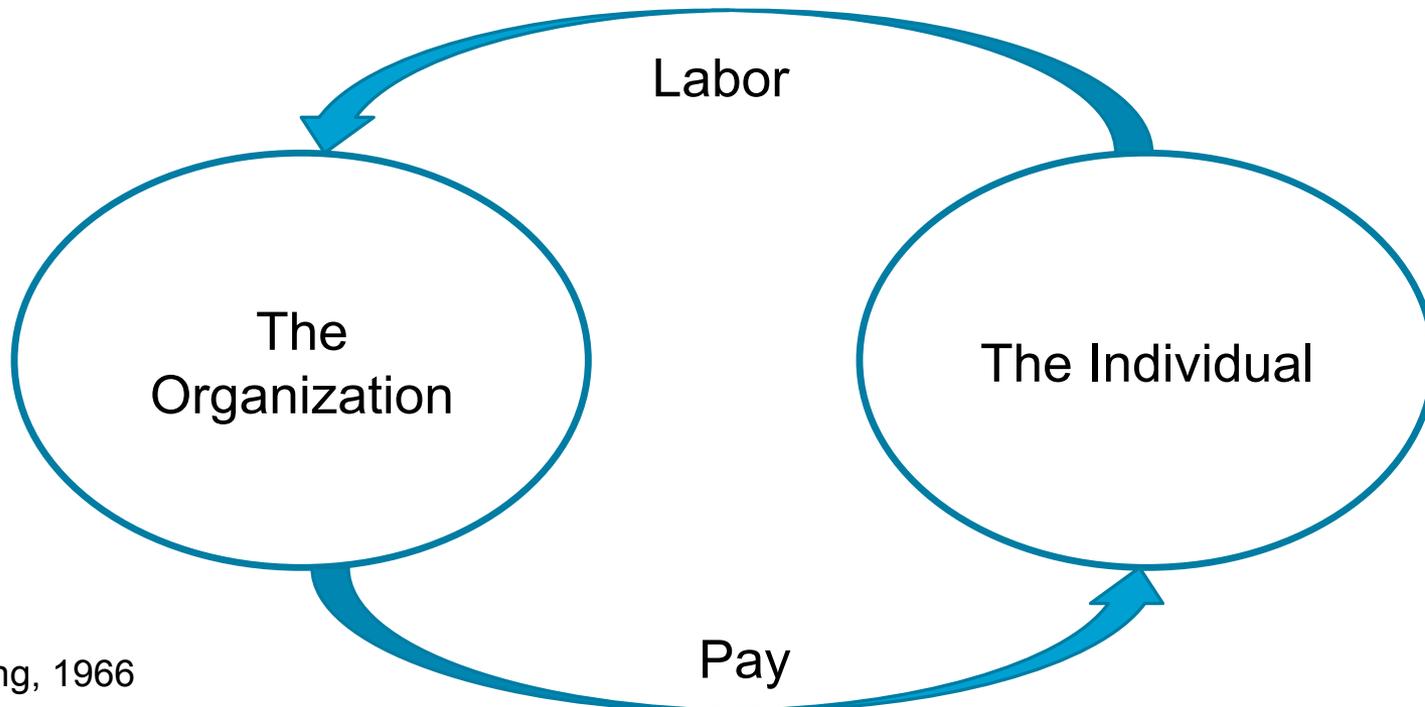
DISCOVER THE DSD DIFFERENCE

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Foundation of Deterrence Theory ¹

- An organization uses coercive diplomacy¹ to enable the adoption of desired behavior – such as a policy
- Policy describes what behavior is either desired or undesired



¹Schelling, 1966

Foundation of Deterrence Theory ¹

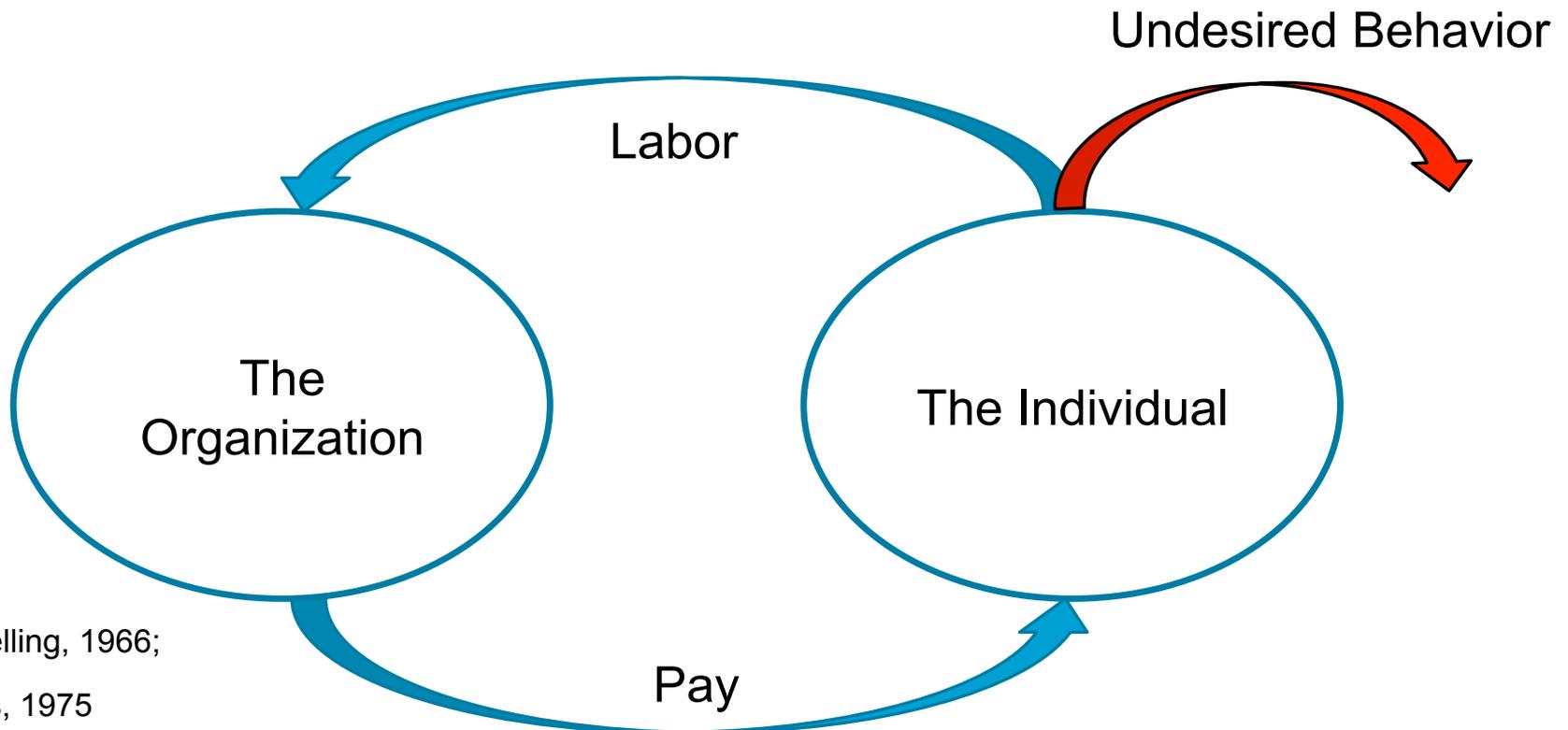
- An employee can either choose to follow the policy or not
- To be effective, the policy must also define the associated punishment for failure to comply with the policy



¹Schelling, 1966

What is General Deterrence Theory?

- General deterrence theory (GDT) poses that an individual's behavior can be altered through the use of a perceived punishment²



²Schelling, 1966;

Gibbs, 1975

What is Perceived Punishment? '

- The organization's perspective of "perceived punishment" is the defined actions the organization thinks is needed to alter the behavior – may or may not be accurate



What is General Deterrence Theory? '

- The individual's perceptiveness of a "perceived punishment" is more subjective
 - May be justified in the mind of the accidental attacker
 - Can they catch me?
 - Can they actually harm me?
- The punishment must cause a fear of:
 - Pain
 - Publicity

What is General Deterrence Theory?

- “....assertions about deterrence are virtually meaningless unless they refer to specific properties of punishment....”³
- Policy must define the actual punishment that will be imposed



³(Gibbs, 1975)

“Whoever knowingly executes, or attempts to execute, any scheme or artifice with the intent....be fined not more than \$1,000,000, or imprisoned not more than 10 years, or both.”⁴

- Financial
- Loss of Liberty

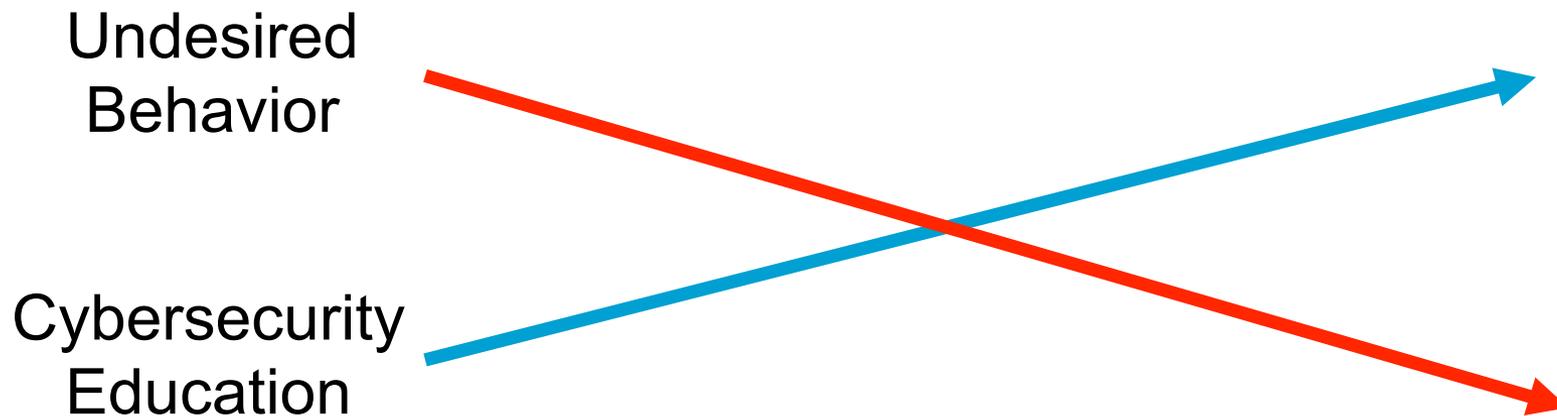
⁴(18 U.S. Code § 1031 - Major fraud against the United States)

- The fear of public knowledge or ridicule
- The loss of credibility, trust, stature, etc.
- Can be more powerful than “actual” pain
- The dreaded “perp walk”



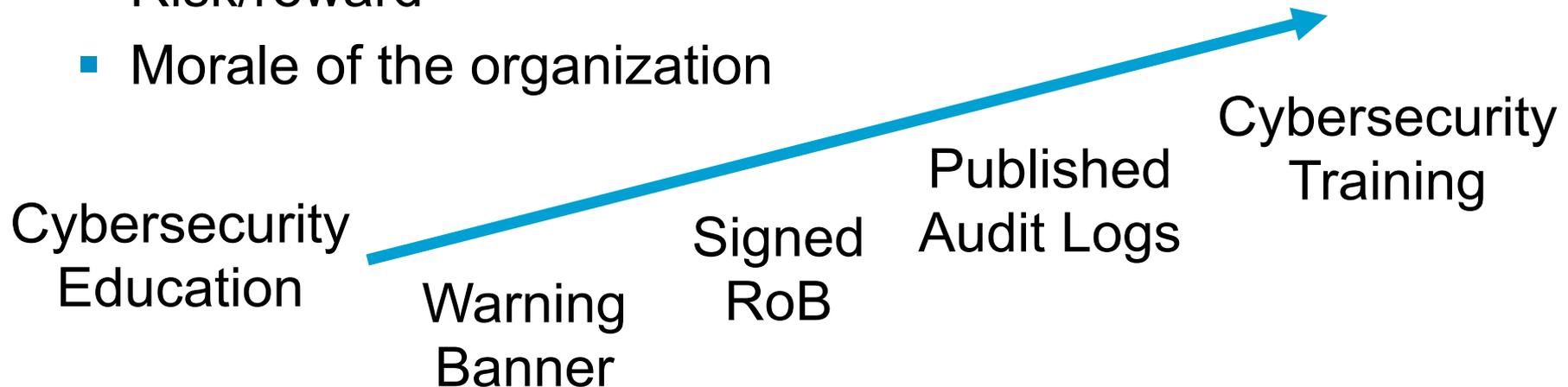
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- Undesired behavior and cybersecurity education have an inverse relationship



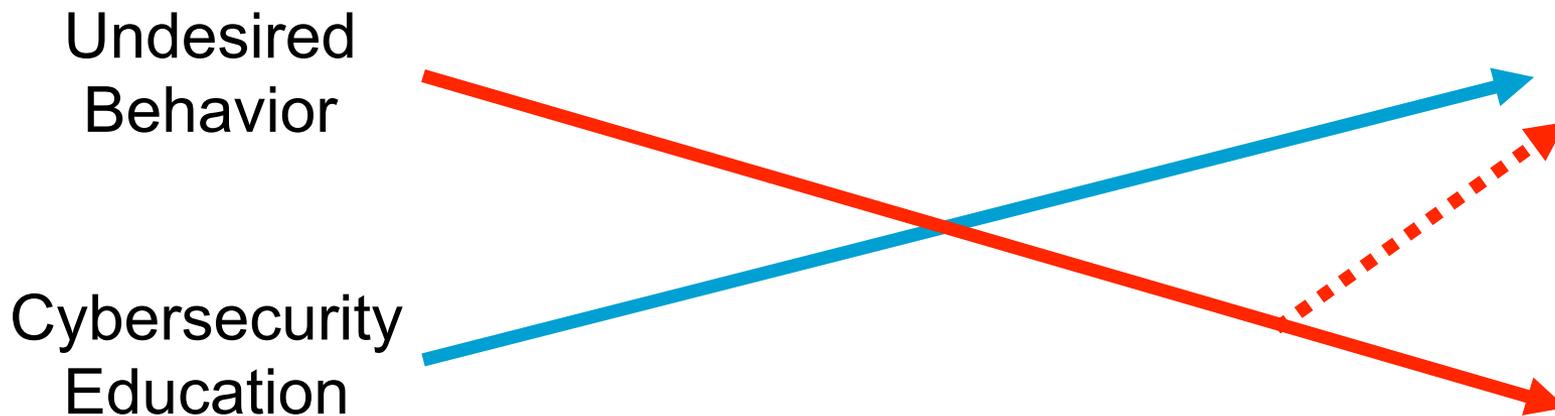
Which Education Tool to Use

- Depends on many variables
 - Type and nature of the system/data
 - User access
 - Technical and physical controls
 - Cost/benefit
 - Risk/reward
 - Morale of the organization

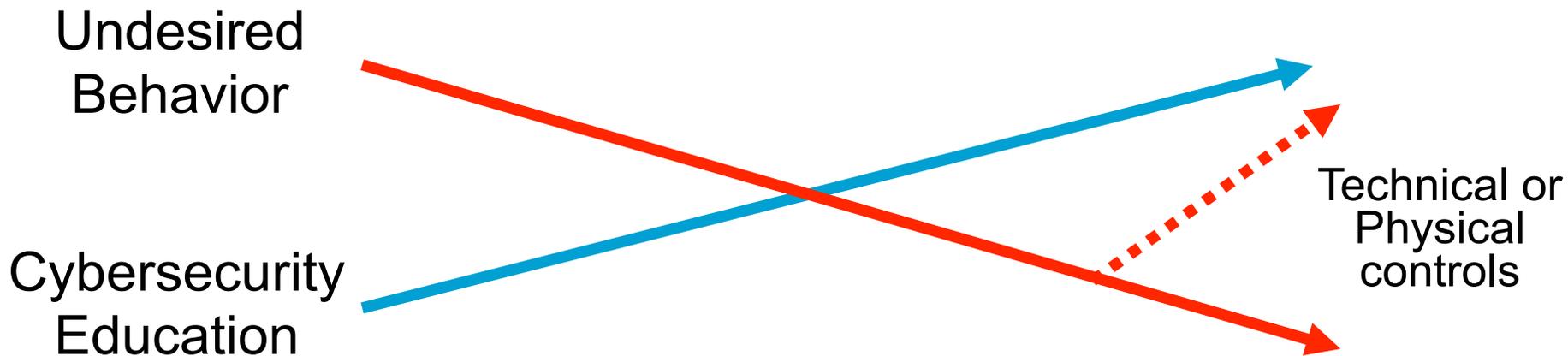


The “Other” Effect of Education

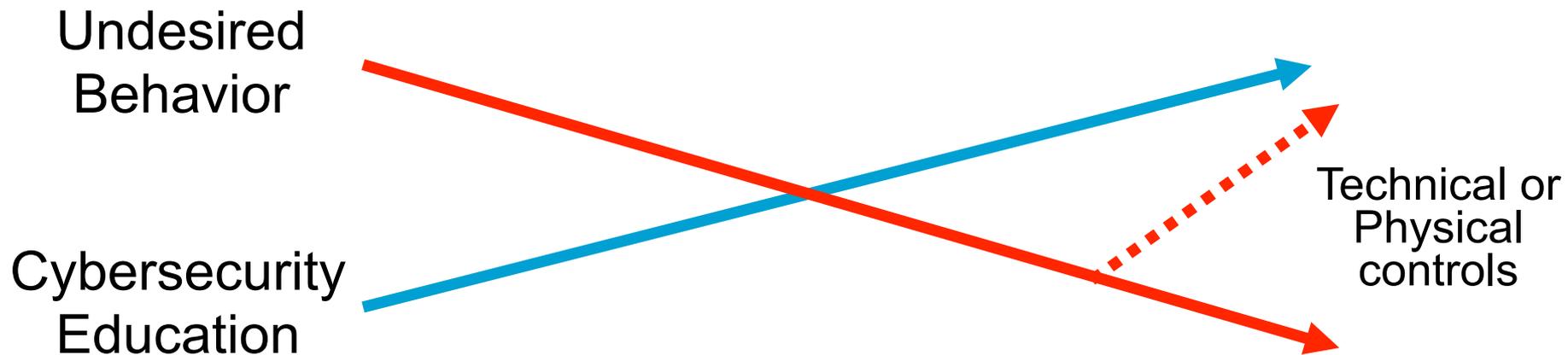
- Some individuals have an elevated risk tolerance level
- May or may not be nefarious



- GDT and education may not stop the accidental attacker
 - May justify action as a “greater good”
 - May forget part of the education
 - May fall victim to a malicious attacker



- GDT and education may not stop the intentional attacker
 - Has some level of motivation to cause harm or other act



- Educate the workforce
- Threat model to understand internal and external threats
 - Motivation
 - Skill
 - Internal vulnerabilities (threat vectors)
- Align the punishment to the value of the data or mission
- Target controls based on the TM

- At some point you literally have to kill someone*
- The punishment has to match the crime
- They have to think you can reasonably catch them
- They have to think that the punishment is enforceable
- They have to think you are serious

- *Figuratively speaking

