

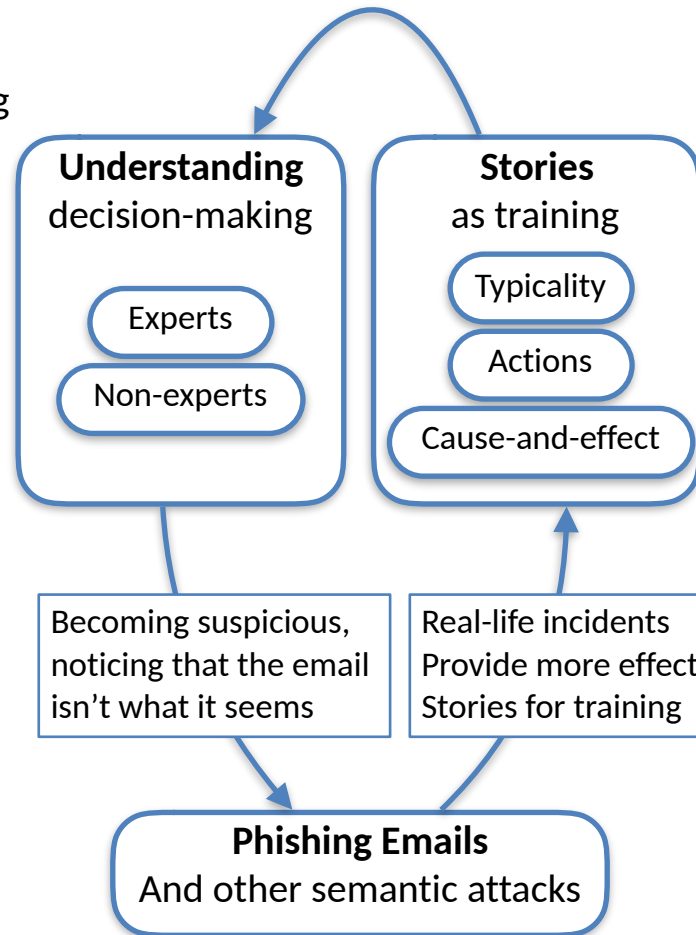
# SaTC: CORE: Small: Using Stories to Improve Computer Security Decision Making

## Challenge:

- Phishing and other “semantic attacks” targeting weaknesses in human decision making are becoming more common and having more impact.
- People are difficult to train, and current training methods are not producing the needed protection

## Approach:

- Building on theories of Naturalistic Decision Making, we identify how both experts and non-experts detect semantic attacks
- We create training stories that help people 1) identify typical features and recognize deviations from typicality, 2) identify reasonable actions to take, and 3) understand cause-and-effect for these attacks.



## Scientific Impact:

- We identified a 3-stage process that experts use to identify phishing, and 6 previously unidentified ways that this detection can fail, providing a new theoretical foundation for anti-phishing research.
- We identified that who tells stories is important, and that stories only really work when coming from peers, not experts.

## Broader Impact:

- This project addresses a problem with strong social relevance — phishing — and provides training solutions.
- Also, we directly trained over 2000 employees of a university in phishing awareness.
- We informed policymaking around cybersecurity at FTC, industry
- We included members of underrepresented groups in research team.

