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Oh the Humanity! Building Reliable Cultural Firewalls

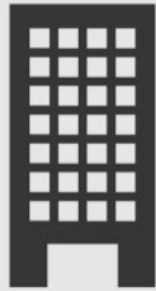
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A Tale of Two Cultures...



Culture is Human Infrastructure

In security we love to talk about “people, process, & technology” ...



...but in practice we often reverse the order of their importance.

Defining Culture

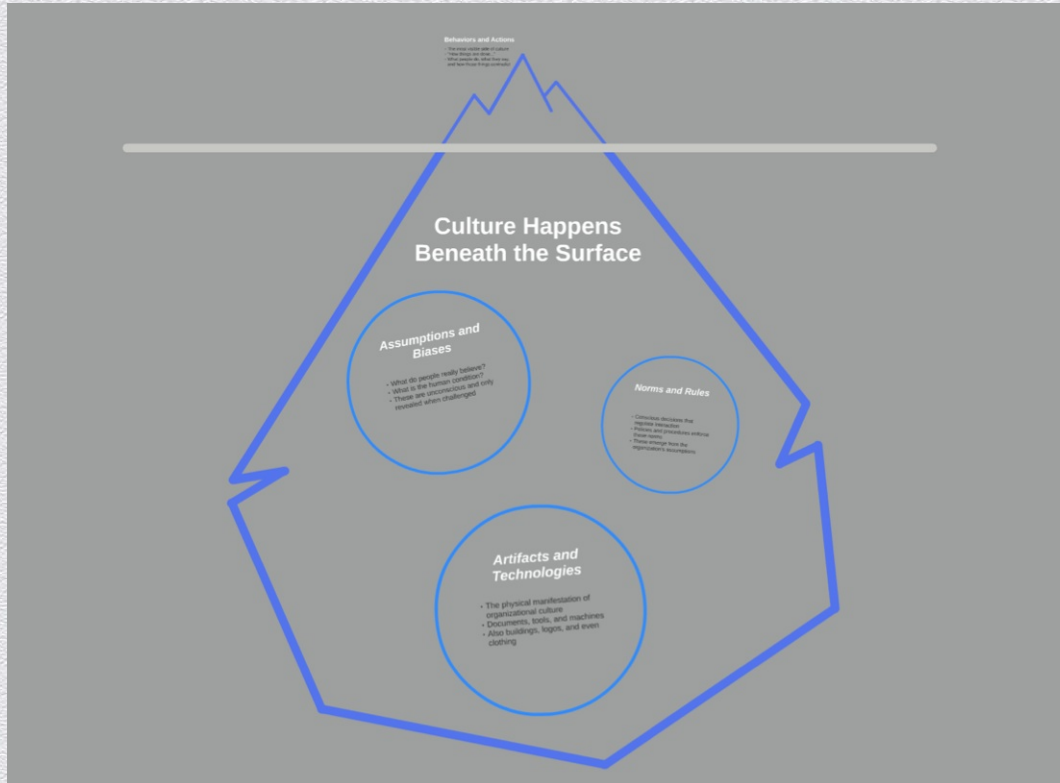
“Culture is a socially constructed attribute of organizations that serves as the social glue binding an organization together.”

Cameron & Quinn, 2011

Components of Culture

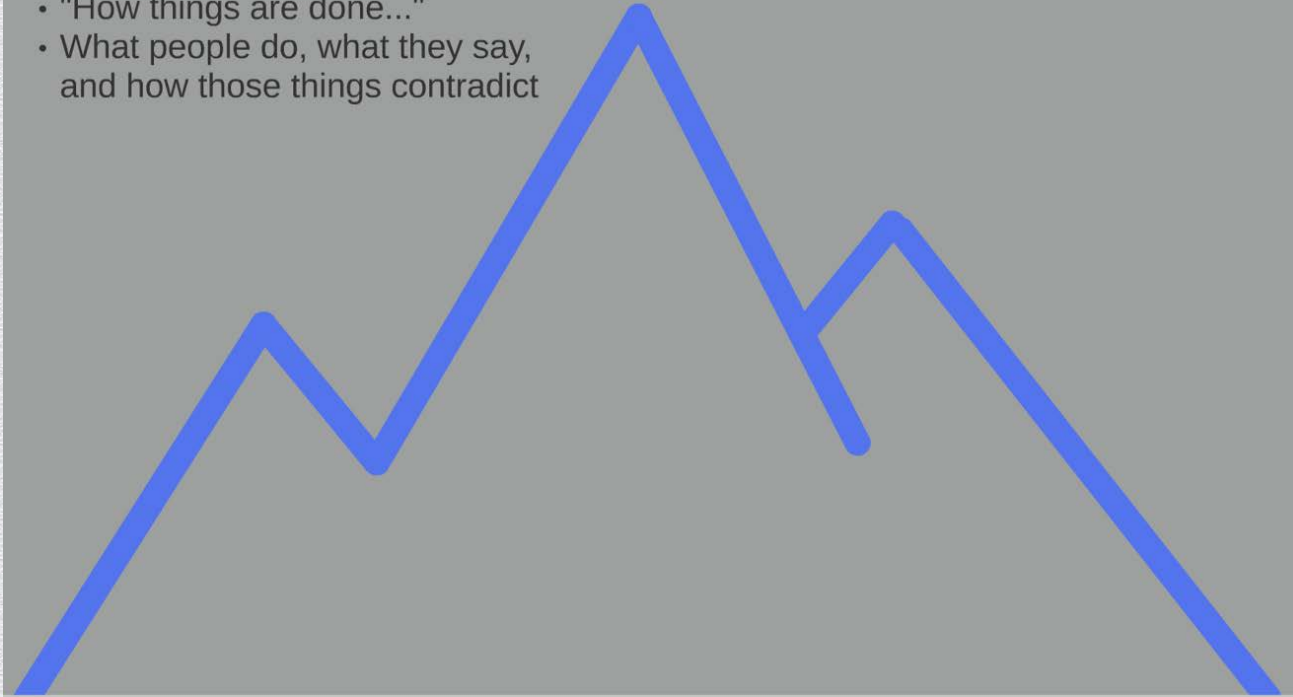
- ◆ Assumptions & Biases
 - ◆ *What do we believe, & why?*
- ◆ Norms & Rules
 - ◆ *What constitutes accepted (and acceptable) behavior?*
- ◆ Artifacts & Technologies
 - ◆ *What tangible “things” does a culture produce?*
- ◆ Behaviors & Actions
 - ◆ *Which decisions, choices, & outcomes do we make for ourselves?*

Organizational Culture Model



Behaviors and Actions

- The most visible side of culture
- "How things are done..."
- What people do, what they say, and how those things contradict



Assumptions and Biases

- What do people really believe?
- What is the human condition?
- These are unconscious and only revealed when challenged

Norms and Rules

- Conscious decisions that regulate interaction
- Policies and procedures enforce these norms
- These emerge from the organization's assumptions

Artifacts and Technologies

- The physical manifestation of organizational culture
- Documents, tools, and machines
- Also buildings, logos, and even clothing

Describing a Security Culture

- ◆ How does the organization “do” security?
- ◆ What do people believe & assume about protecting information?
- ◆ What policies & technologies exist to control or normalize behavior?
- ◆ Where are the exceptions? Which “rules” can be broken?

The culture you have may be very different from the culture you think (or say) you have. In security, this can increase risk and invite failure.

The Cultural Firewall

- ◆ Cultural firewalls protect organizations by embedding security into the human infrastructure of the enterprise – each individual member
 - ◆ Creating assumptions and values that embrace security
 - ◆ Driving everyday behaviors and decisions that prioritize security
 - ◆ Developing a way of looking at the world that improves security
- ◆ Cultural firewalls operate within people and groups, instinctually
- ◆ Like technical firewalls, performance varies

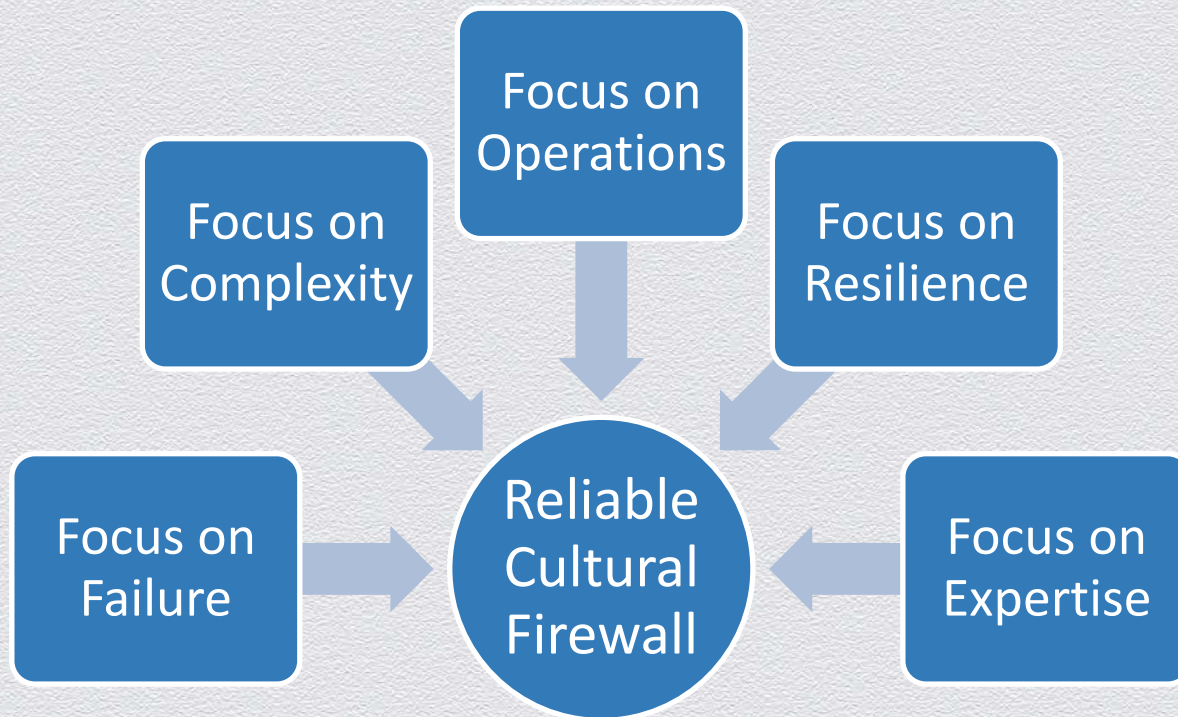
Training and Awareness ≠ Culture

- ◆ “Security awareness” is currently the best proxy we have for what the cultural firewall provides...
- ◆ But training programs and awareness campaigns have limits
 - ◆ Focus is mainly on the visible **signs** of culture (do's and don'ts)
 - ◆ Less emphasis on the deep drivers that **are** the culture (why's and how's)
- ◆ If culture could be taught so easily, every company would be equally innovative, entrepreneurial, and customer-focused

Reliable Cultural Firewalls

- ◆ Cultural firewalls are reliable when they consistently and regularly
 - ◆ Produce sound security decisions on instinct
 - ◆ Anticipate failures and correct problems rather than waiting and reacting
 - ◆ Recognize and contain failures gracefully and recover quickly
- ◆ Highly reliable security programs create and maintain good cultural firewalls by influencing and transforming organizational behavior

Highly Reliable Security Programs



Transforming Culture

- ◆ You don't usually get a chance to create your culture
- ◆ Transforming culture requires understanding what you have today
 - ◆ Culture needs to be measured
 - ◆ The characteristics that define culture must be assessed
- ◆ Improving culture requires knowing what you want it to be
- ◆ Culture changes slowly and pushes back against transformation
 - ◆ Belief is more powerful than behavior
 - ◆ Leadership and influence are more important than slogans

Culture, Context, and Concealment



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Thank You