

**JUST CULTURE:  
A Different Approach  
to Safety &  
Accountability**



Hollie Colahan Denver Zoo









# WHAT IS JUST CULTURE?

## *And what it is not*

*Just Culture is a values-supportive system of shared accountability. The employees can report mistakes, by them or others, and know that that information will feed into the safety management system. However, gross negligence, willful violations and destructive acts are not tolerated.*

### Just Culture is **NOT**

- Blame-free culture
- Punitive culture
- Outcome based
- Expectation of perfection

### The hard parts

- Humans are fallible
- Severity of outcomes don't matter
- Progressive discipline isn't the answer



# 5 SKILL MODEL

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1. Aligning Values and Expectations – align with mission
2. Designing Better Systems – anticipate errors, support good decisions
3. Making Better Behavioral Choices – understand role of human behavior
4. Learning to Systematically Learn – investigate, analyze, & learn from mistakes
5. Finding Justice –both in the system and for the employee



# 3 DUTIES

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Avoid  
unjustifiable  
risk

Follow  
procedural  
rules

Produce an  
outcome



# OUTCOME BIAS

.....  
The danger of “no harm, no foul”

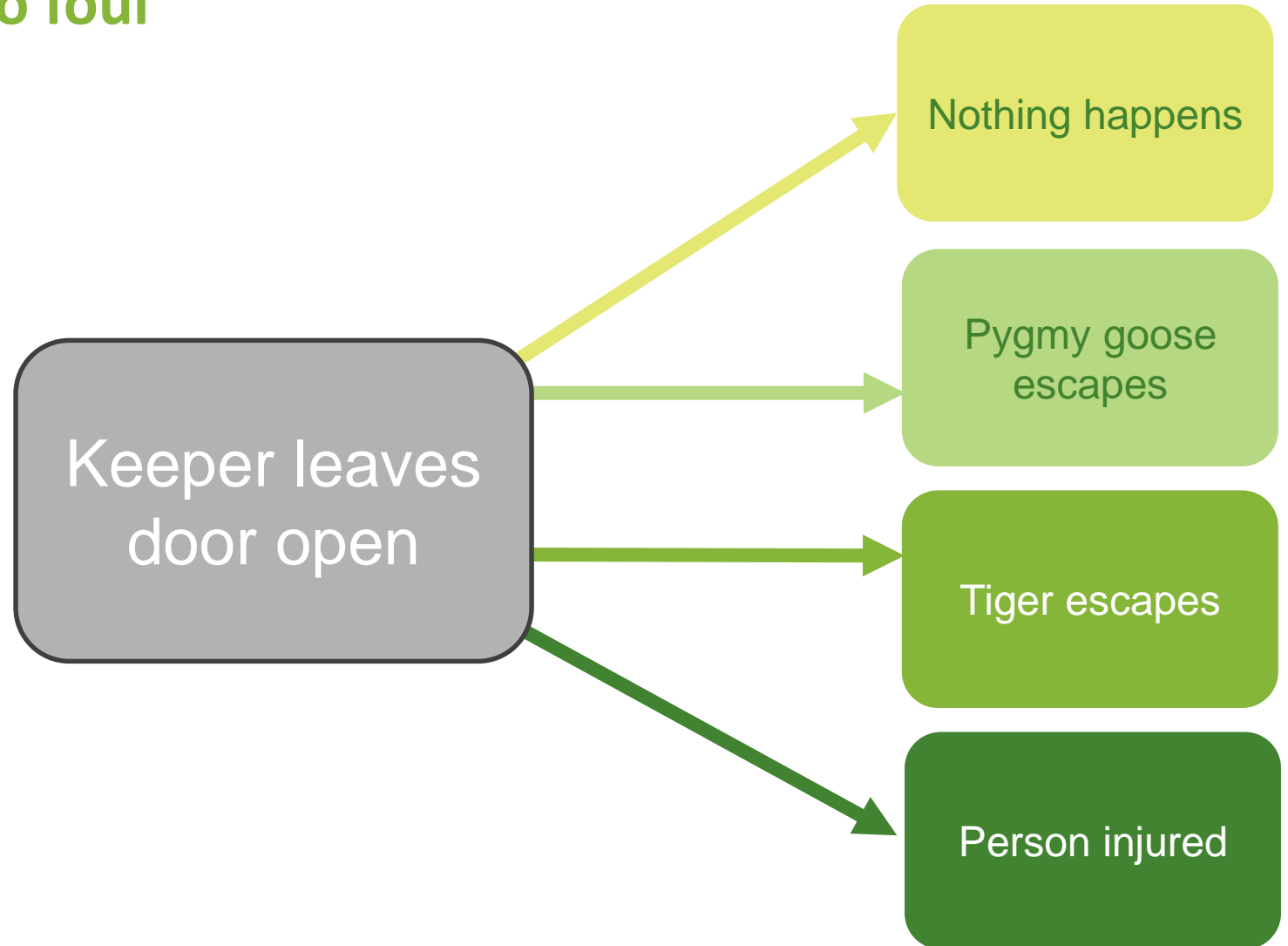
- We may punish when someone doesn't deserve to be punished
- We let risky behaviors continue unchecked
- Potentially overreact to singular events and underreact to risk





# OUTCOME BIAS

The danger of “no harm, no foul”



# OUTCOME BIAS

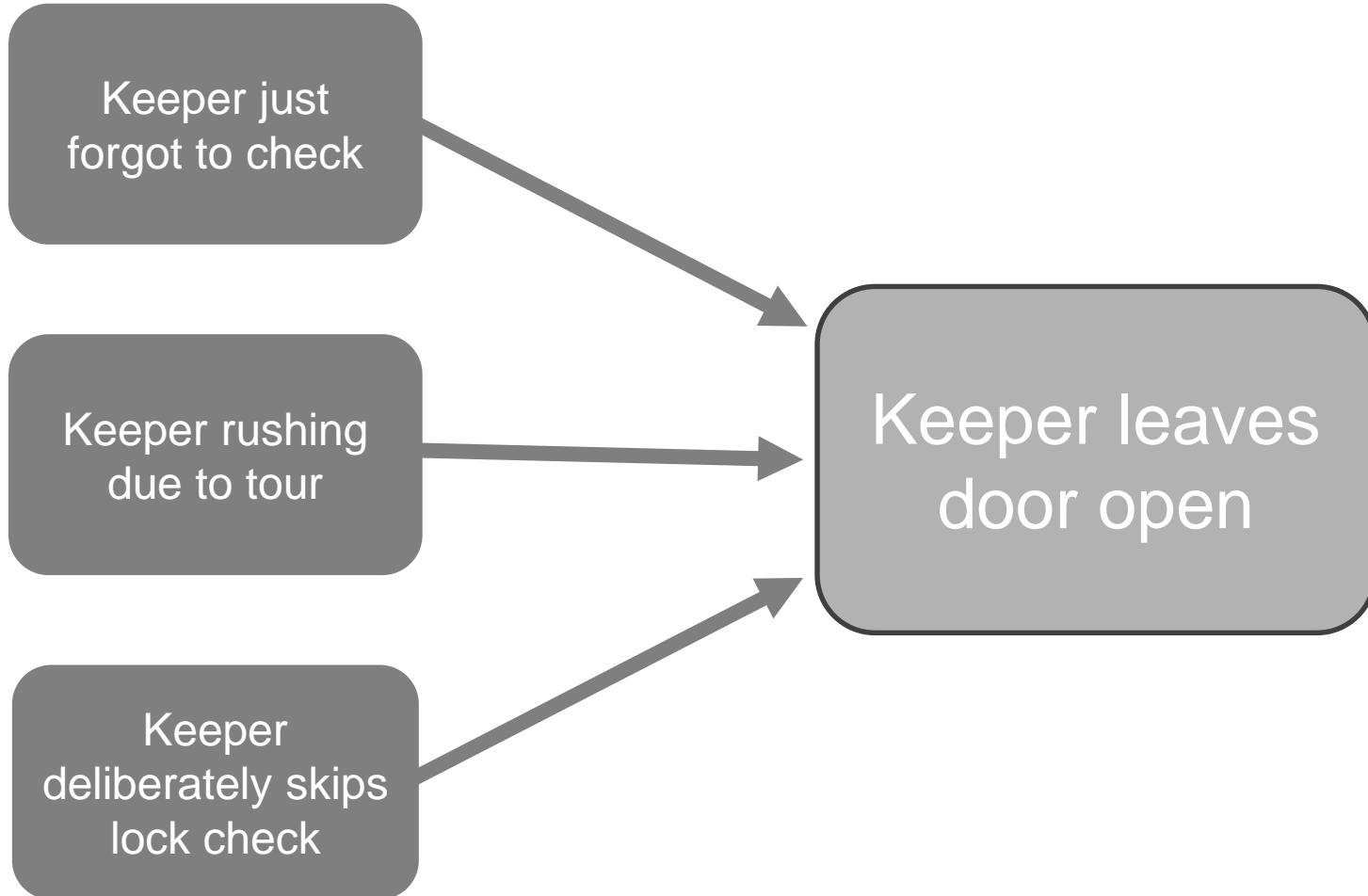


The danger of “no harm, no foul”

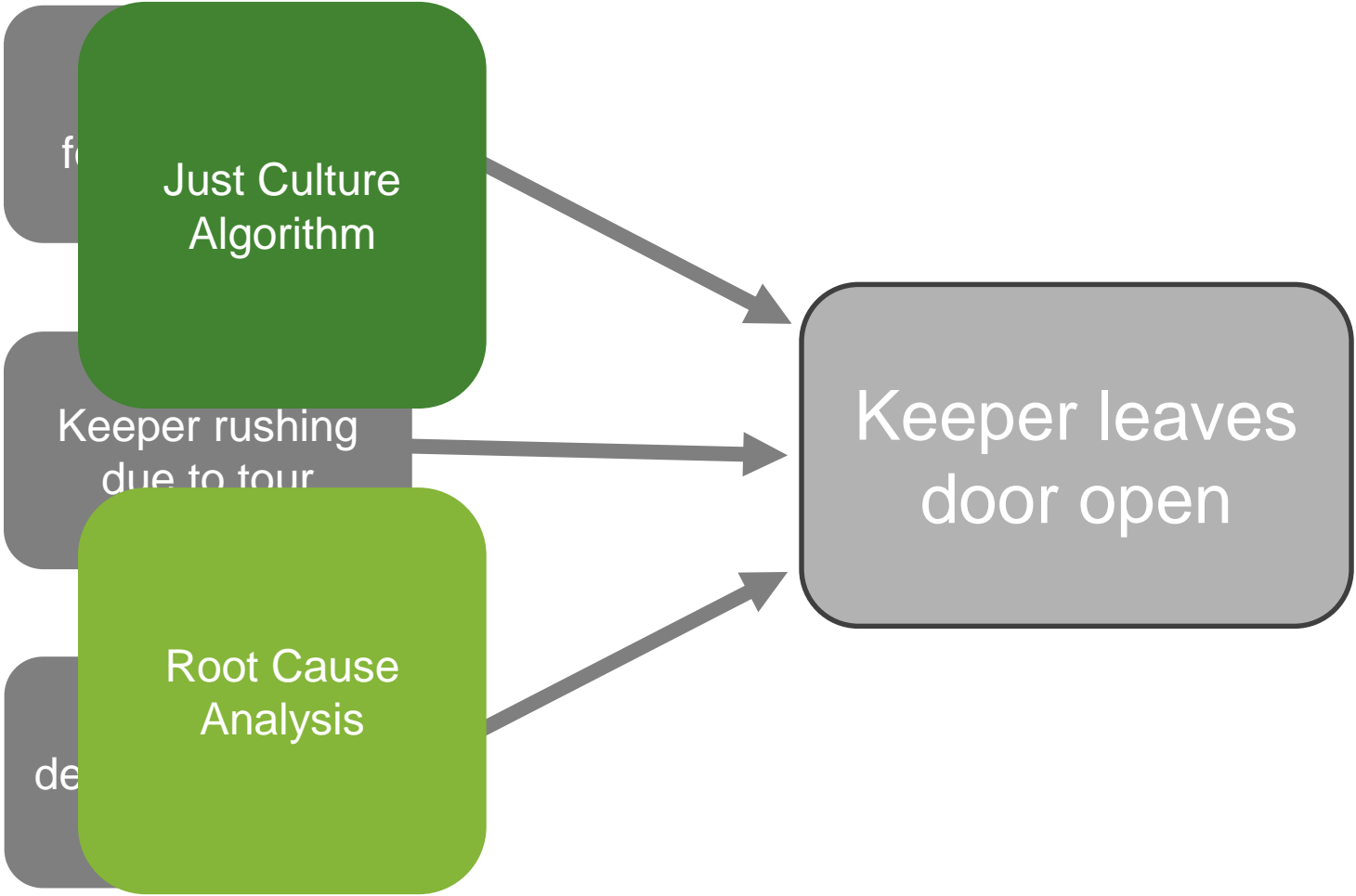
Keeper leaves  
door open

# WHY DID THIS HAPPEN?

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# WHY DID THIS HAPPEN?



# THE 3 BEHAVIORS

## The foundation of the Just Culture Algorithm



# THE 3 BEHAVIORS



Behavior	Definition	General Example	Zoo Example
Human Error	an inadvertent action	Run a stop sign accidentally	Forgot to check animal location before entering
At Risk Behavior	making a risky choice we feel is safe	Drive over the speed limit	Rushing due to meetings later in day
Reckless Behavior	a knowingly unsafe decision	Drive while intoxicated	Tells coworker animals have been checked when they have not

# THE 3 BEHAVIORS



General Example	Zoo Example
Run a stop sign accidentally	Forgot to check animal location before entering
Drive over the speed limit	Rushing due to meetings later in day
Drive while intoxicated	Tells coworker animals have been checked when they have not
Potential Outcomes	
Nothing	Nothing
Fatal crash	Animal or human fatality

# THE 3 BEHAVIORS

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Console

Human Error

Keeper just forgot to check

Coach

At Risk Behavior

Keeper rushing due to tour

Punish

Reckless Behavior

Keeper deliberately skips lock check

Keeper leaves door open

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graph LR; A[Keeper just forgot to check] --> D[Keeper leaves door open]; B[Keeper rushing due to tour] --> D; C[Keeper deliberately skips lock check] --> D;
```



Self-reporting of near misses has increased. That has created a situation where we can investigate the situation and often make policy or procedure changes. We can have an actual incident and the culture facilitates a proactive approach to safety. –

I'm excited to work towards the Just Culture format of finding the root cause of problems so that we are solving what really needs to be solved, rather than putting Band-Aids on problems that end up having to be revisited. – Marcia, Assistant Curator

Just Culture allows mistakes without stigma and encourages discussion and analysis of a problem rather than just a wrist slap. It is a much more comfortable and productive conversation for managers. – [Name], Curator

People feel more valued because we can have these conversations in a more genuine and trusting atmosphere. – Matt, Assistant Curator

I reported an error I had made to my supervisors. Together, we came up with appropriate solutions and learning opportunities I could work on to avoid making similar mistakes in the future. I also do not feel that my job, work responsibilities, future opportunities or relationship with my supervisors were at risk. – Maureen, Bird Keeper

Because of Just Culture I am unafraid of admitting mistakes and feel truly supported by my team. I also feel appreciated in that I can help managers find solutions to prevent the mistake from occurring again. – Holly, Animal Ambassador Keeper

Decisions on consequences of actions are relatively straight forward but solutions to prevent incidents can be elusive. Just Culture provides a platform and process to identify the root cause problem to help ensure it doesn't happen again while creating an open environment to discuss safety incidents. – Brian, Sr. VP for Animal Care & Conservation

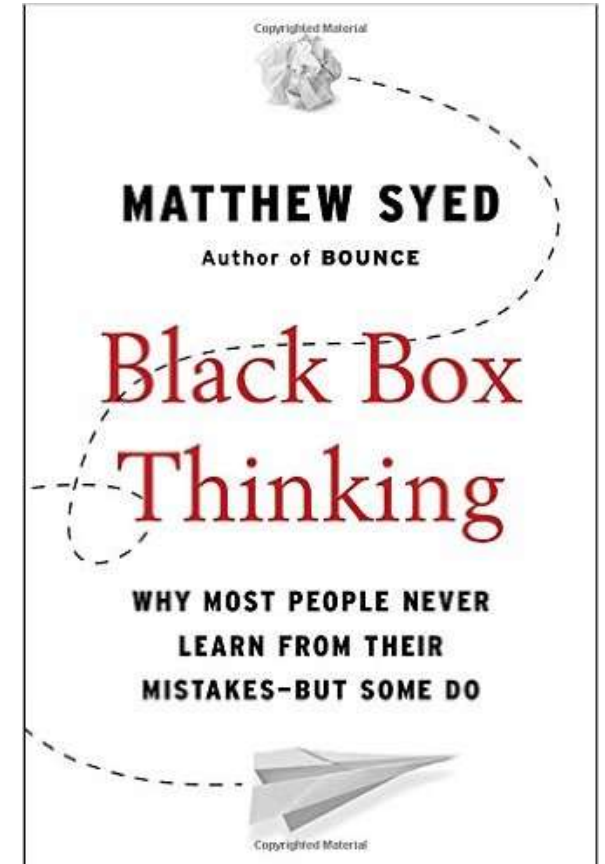
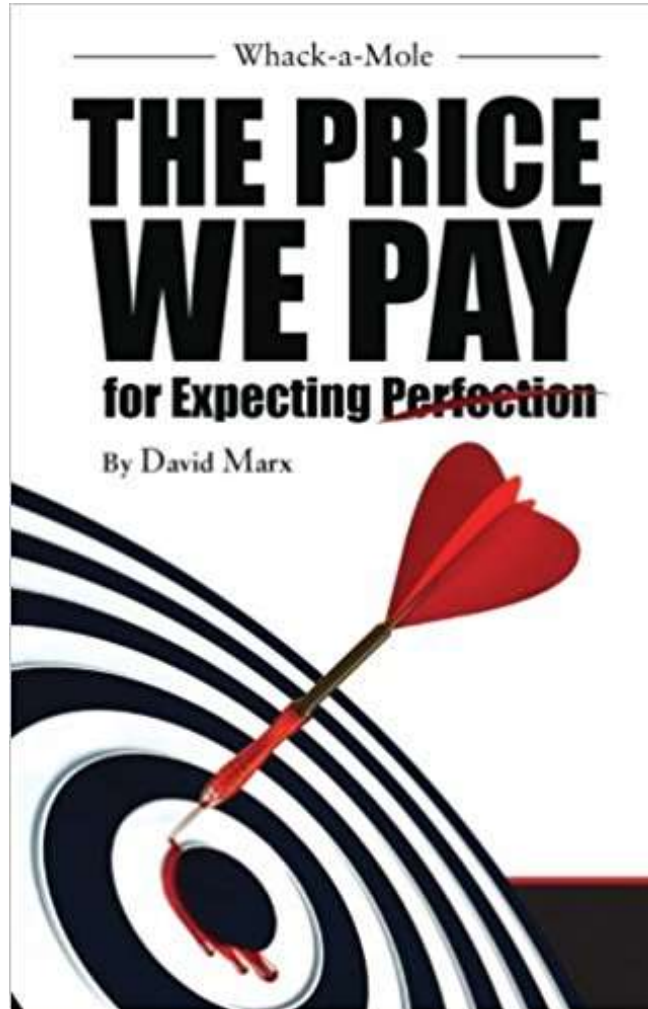
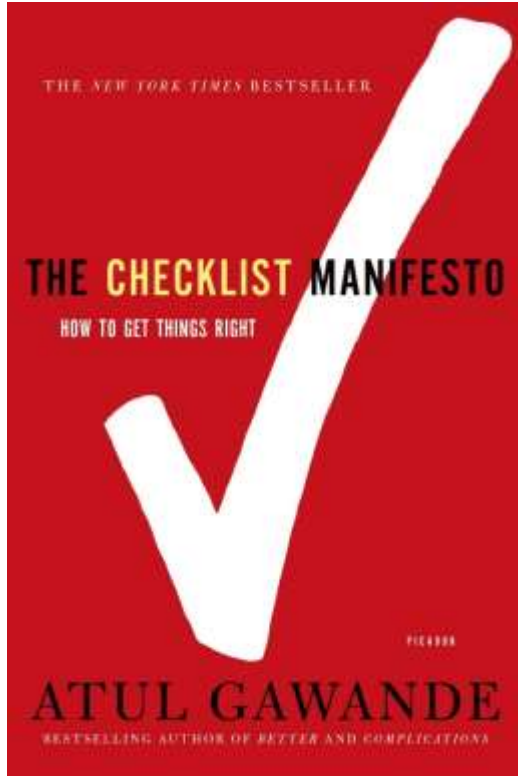
# FAQs

Well, what about...

- What about repeat offenders?
- What if we get sued?
- How would this work with a union?
- What will this cost?
- Can it be applied to things other than safety?



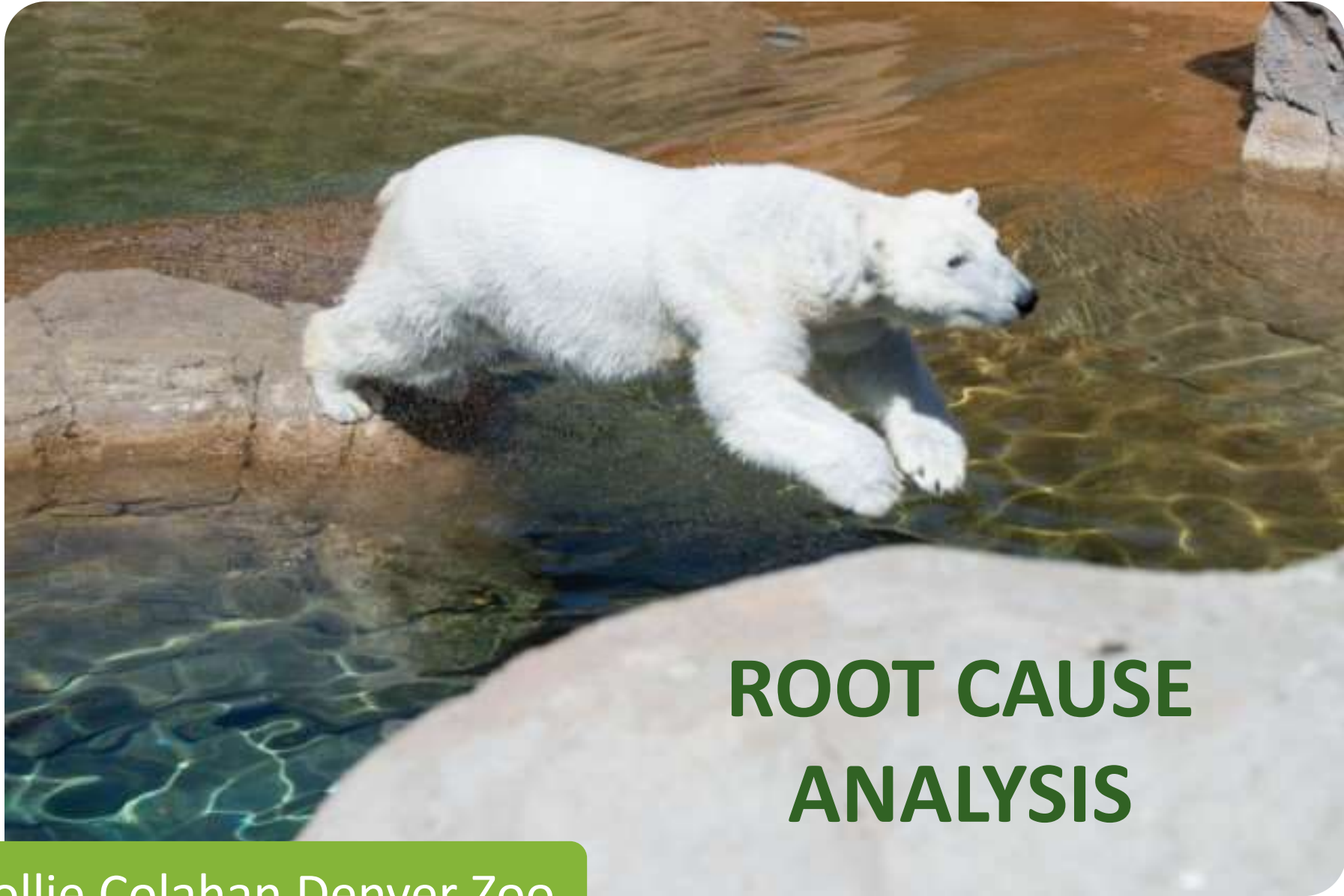
# WANT TO LEARN MORE?



[www.outcome-eng.com](http://www.outcome-eng.com)

[hcolahan@denverzoo.org](mailto:hcolahan@denverzoo.org)





# ROOT CAUSE ANALYSIS

Hollie Colahan Denver Zoo



# WHAT IS RCA?

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*The most basic initiating event(s) of a causal chain of human errors, behavioral choices, and/or mechanical failures leading to a negative outcome.*

Don't jump to solutions yet!

We are prone to make inferences based on our own biases and the outcome so RCA focuses on:

1. Outcomes
2. Systems
3. Future Events



# OUTCOMES

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- What happened?
  - anticipated or unanticipated failure?
- Construct a narrative
  - timeline and process flow
- Build out cause and effect relationships
  - identify behavior choices and contributing factors
- Tell the story



# SYSTEMS

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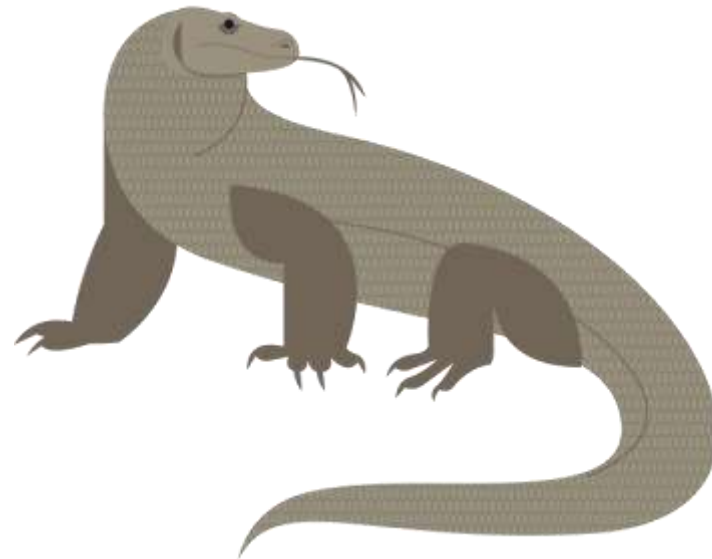


- What normally happens?
- What does procedure require?
- How are we managing the system?

# FUTURE EVENTS

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- Actual event rates – statistical analysis
- Identify frequency of at-risk behavior
- What layers of defense exist? Are they working?





# WHY USE RCA?

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- Systematic and structured process
- Avoids culture of individual blame
- Finds most effective solutions
- Multiple RCAs can help address organizational and system issues

# ADVANTAGES OF RCA

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## Reactive Learning

- Trial and error
- Event investigation
- Tribal knowledge

## Proactive Learning

- Data analysis
- ID common cause
- Audits and surveillance

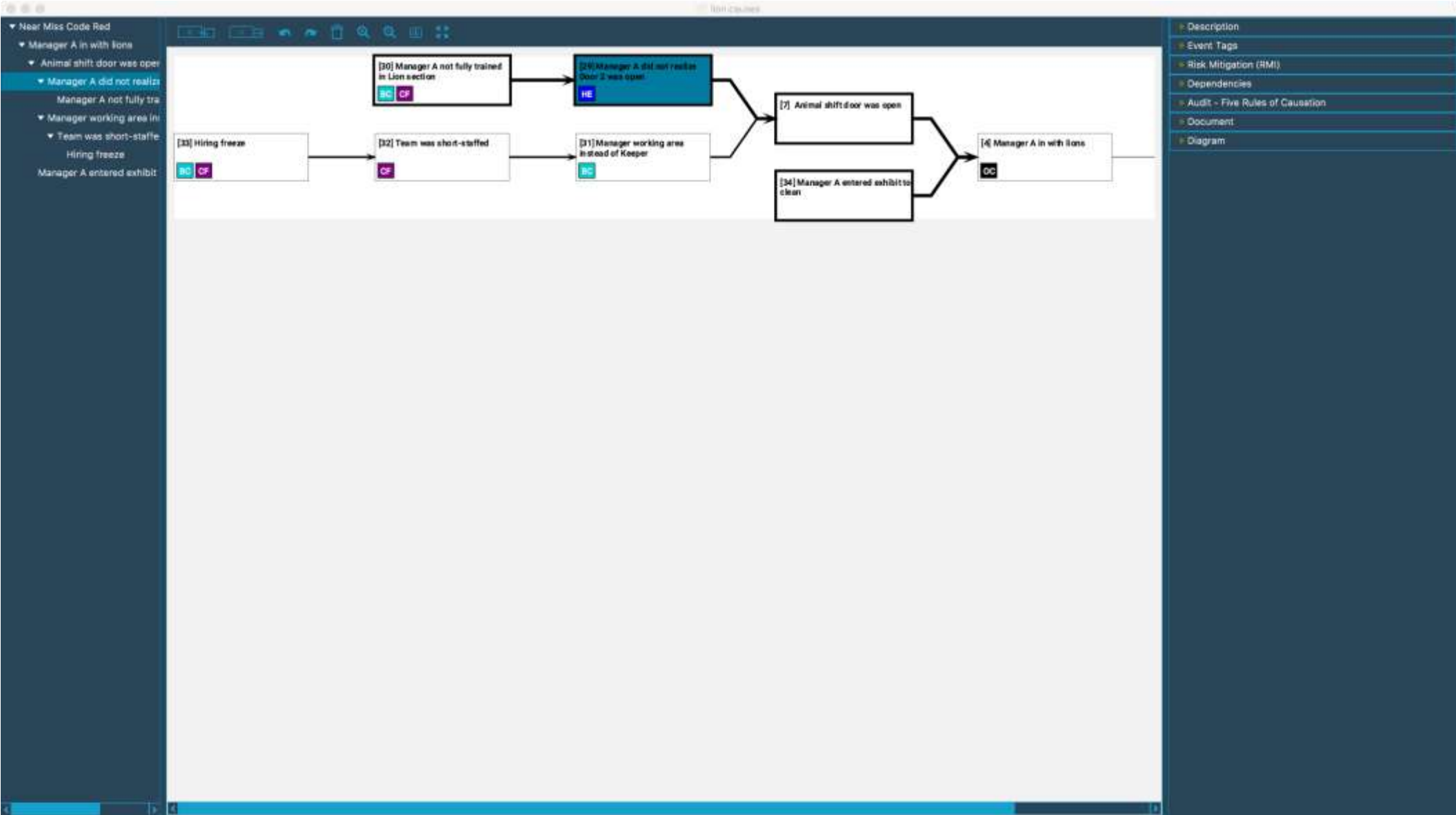
## Prospective Learning

- Failure Modes & Effect Analysis
- Trajectories
- Risk Assessment

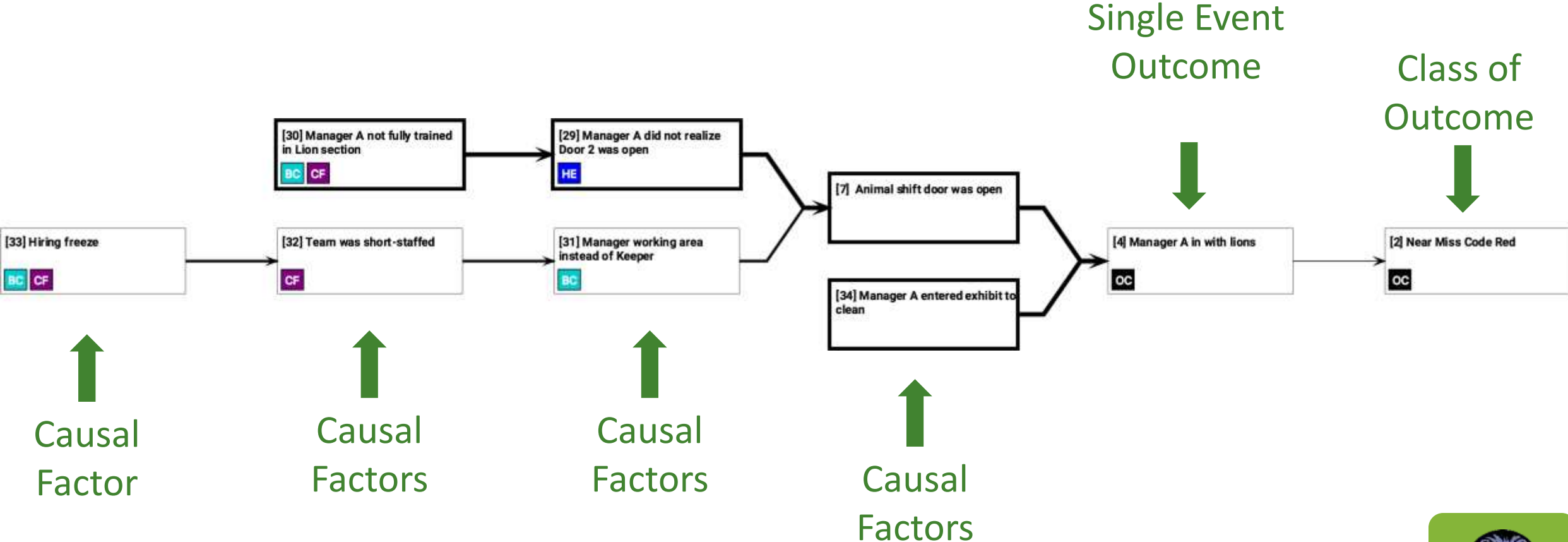
80% of systemic changes should come from *systemic analysis*, not single events



# THE DIAGRAM



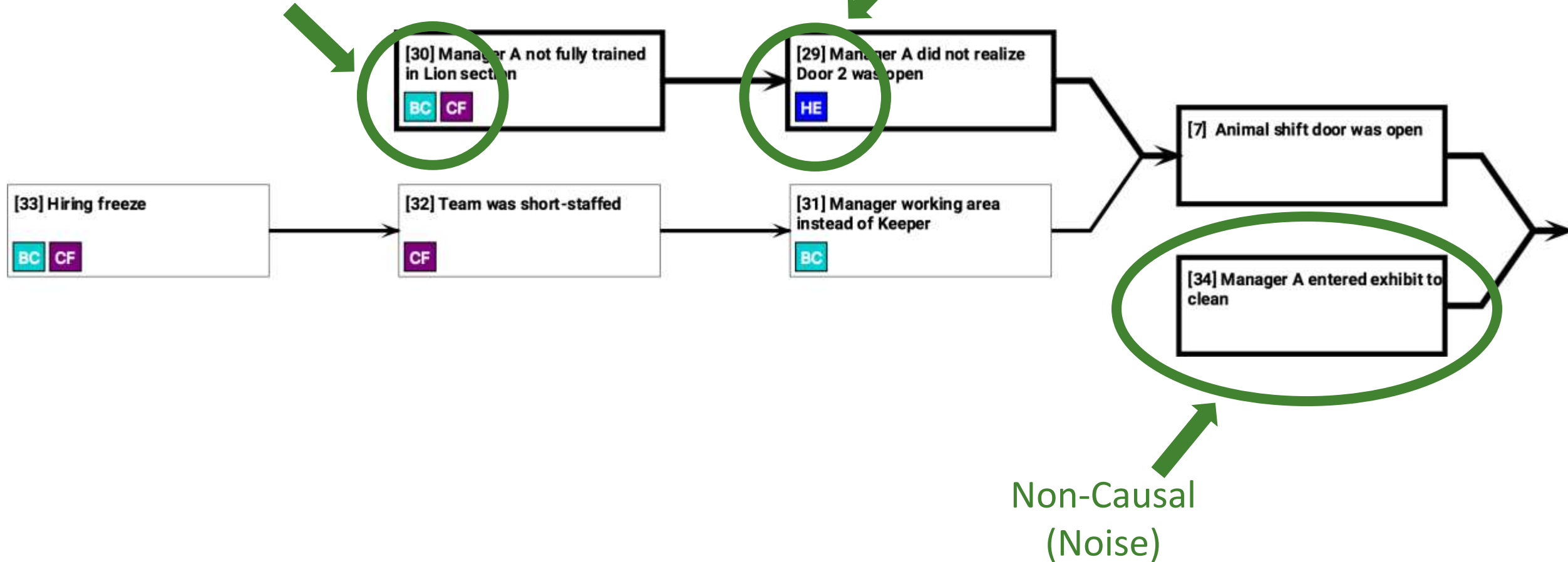
# THE DIAGRAM



**Behavior Choice: At Risk**

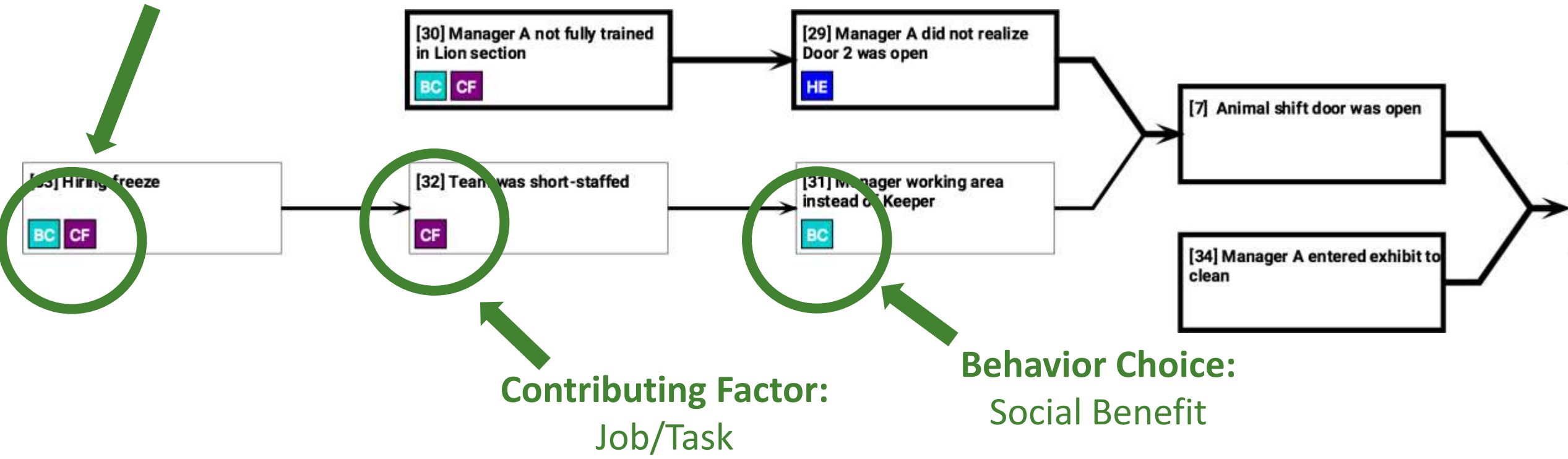
**Contributing Factors: Interpretation of Risk, Knowledge/Technical Skills**

**Human Error: Mistake of Fact**

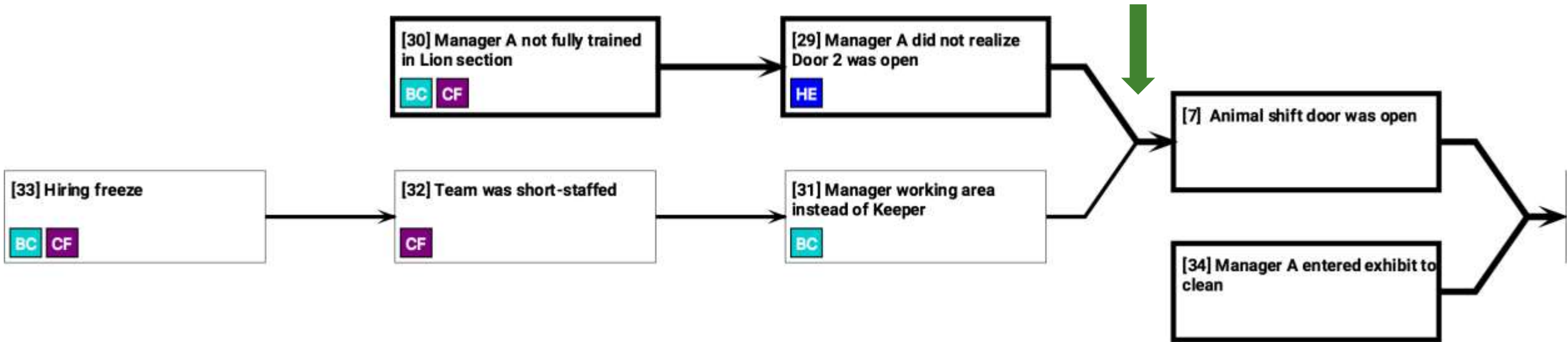


**Behavior Choice: At Risk**

**Contributing Factors: Interpretation of Risk, Organizational Factors**

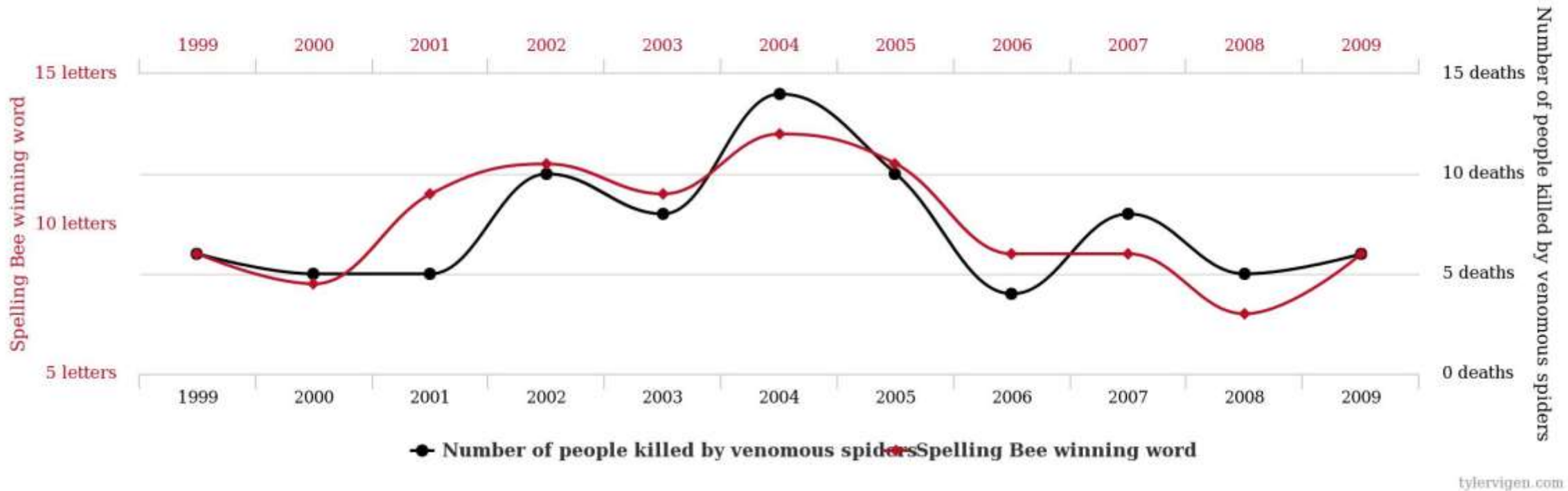


Line thickness = causal strength



# CAUSATION vs CORRELATION

**Letters in Winning Word of Scripps National Spelling Bee**  
correlates with  
**Number of people killed by venomous spiders**

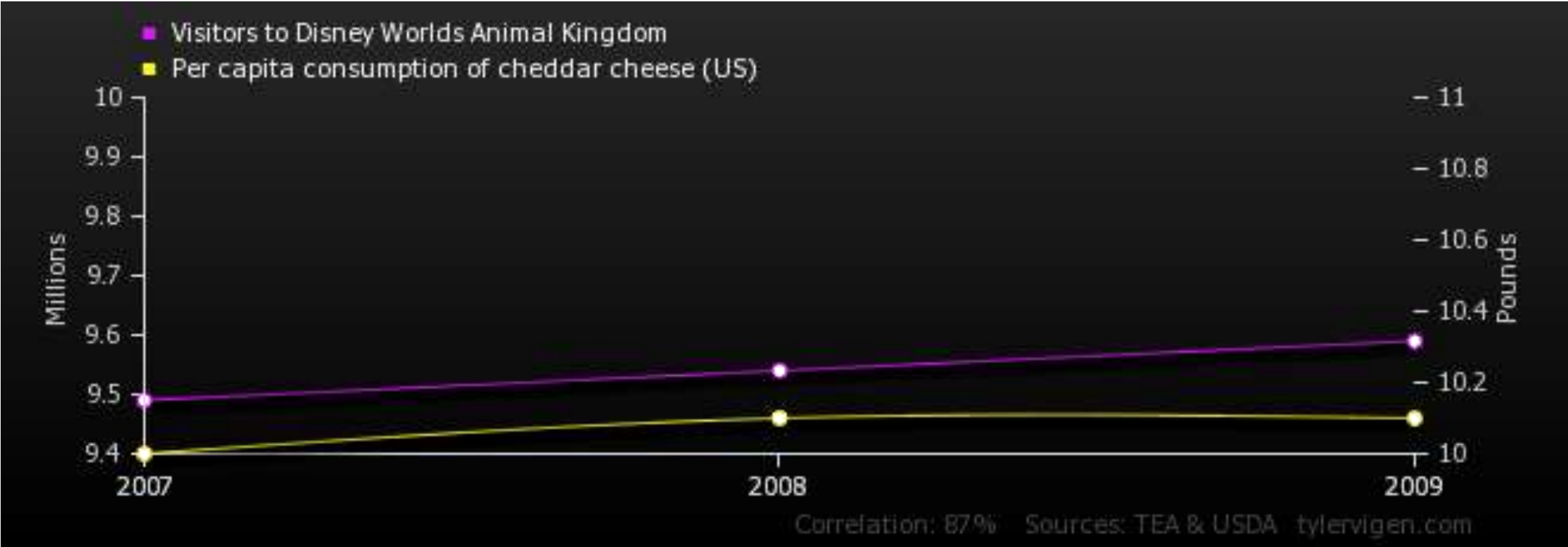


tylervigen.com





# CAUSATION vs CORRELATION



Spurious Correlations by Tyler Vigen



→ [29] Manager A did not realize Door 2 was open

HE

→ [31] Manager working area instead of Keeper

BC

▸ Description

▸ Event Tags

▾ Risk Mitigation (RMI)

Ranges: Low (1-4) Medium (5-7) High (8-10)

Impact/Severity Score: 9

Likelihood/Rate Score: 3

Changeability Score: 2

RMI Score: 54

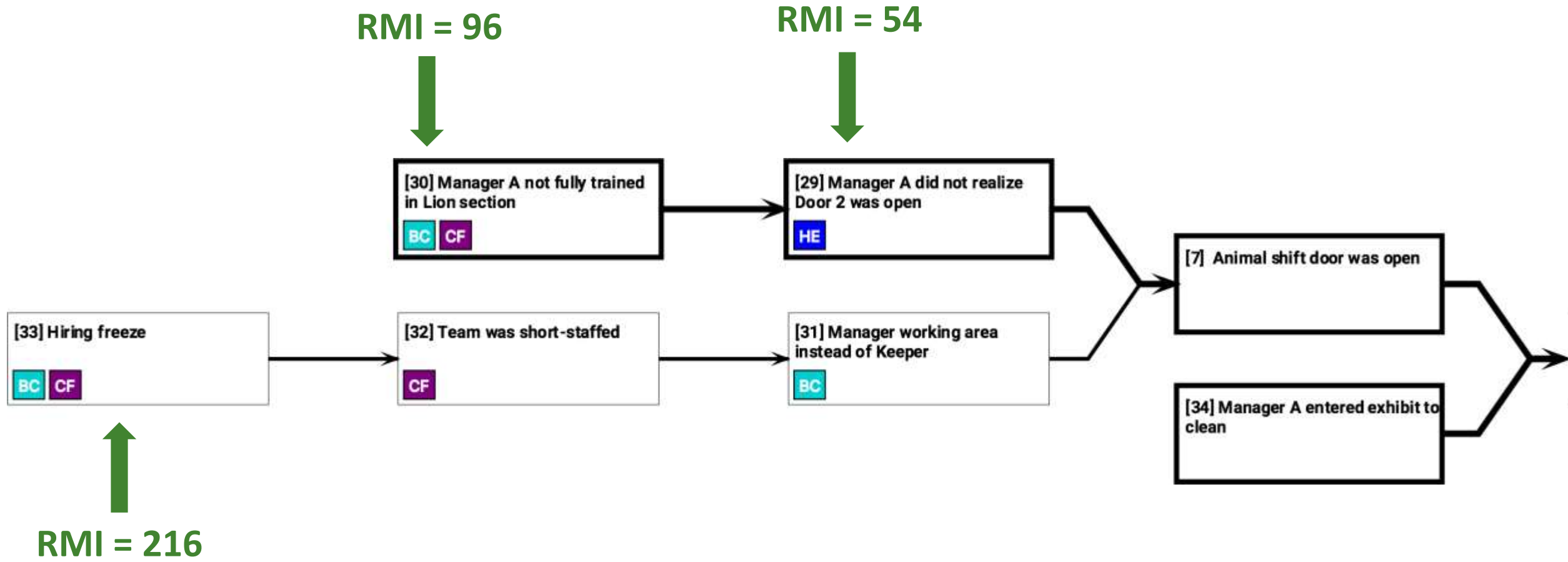
Impact/Severity Score - Considers the causal factors impact on effecting the likelihood of the Undesired Outcome (High Range - Undesired Outcome has a strong likelihood of occurrence, Medium Range - Undesired Outcome likely to occur, Low Range - Undesired Outcome unlikely to occur)

Likelihood/Rate Score - Considers the causal factors likelihood of occurrence within the socio-technical system (High Range - causal factor has a strong likelihood of occurrence, Medium Range - causal factor likely to occur, Low Range - causal factor unlikely to occur)

Changeability Score - Considers the organizations ability to mitigate the causal factor (High Range - causal factor has strong changeability, Medium Range - causal factor has moderate changeability, Low Range - causal factor has low changeability)

# Risk Management Index (RMI)

1. Impact/Severity
2. Likelihood/Rate
3. Changeability



# EVENT INVESTIGATION

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What happened?

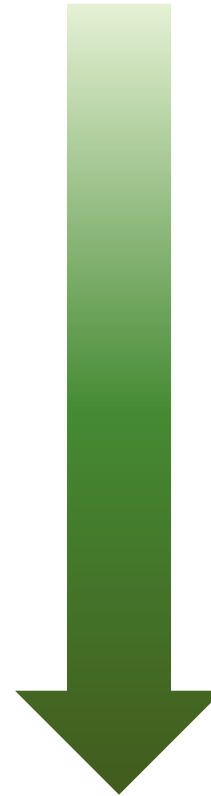
What normally happens?

What does procedure require?

Why did it happen?

How were we managing it?

Increasing  
Value



Keep asking  
“WHY?”



# THANKS!

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- Denver Zoo
- Phillip Bolger, Outcome Engenuity
- AZA Safety Committee

