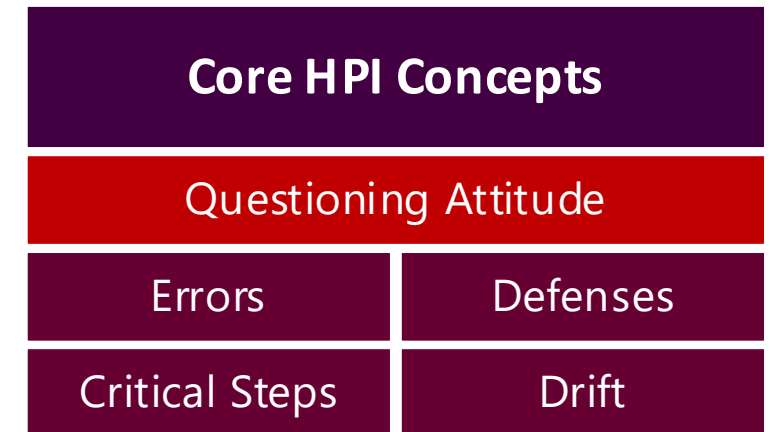


An aerial photograph of a steep, light-colored rock face. A small figure of a person in a red shirt is visible on the rock face, providing a sense of scale. The rock surface is textured with various cracks and small patches of green vegetation. The overall scene is rugged and mountainous.

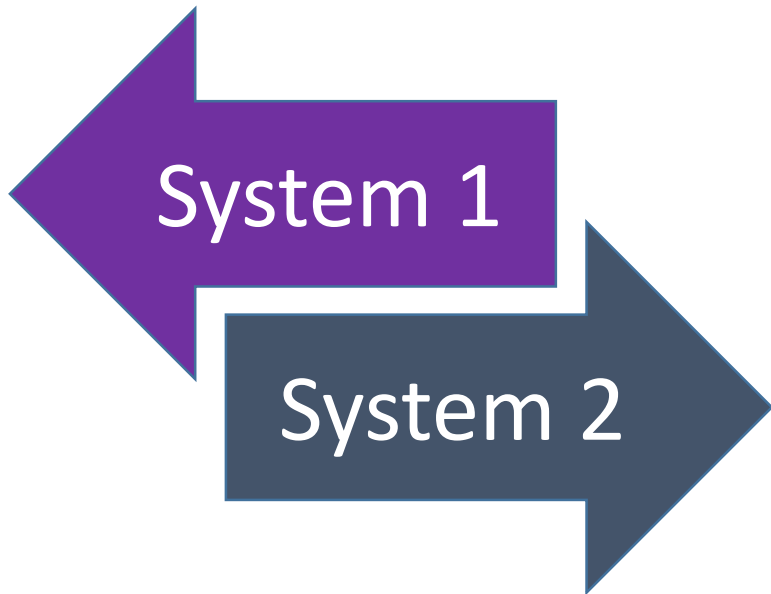
**HPI 101:
CRITICAL STEPS
& DEFENSES**

“The HPI 5+5”

HPI Principles	Through continual learning, we constantly improve the defenses that protect us from the errors all of us can make	
	1	We all make errors – it’s a matter of when, not if
	2	These errors follow a recurring pattern, and are predictable and manageable
	3	Curiosity drives us to examine our practices and learn from our errors
	4	As employees, we are the solution, not the problem
	5	Excellence is not the absence of failure, but the presence of process and defenses



Review



Skill-based

Rule-based

Knowledge-based

S

T

A

R

Agenda

Image by Goodwin Steel Castings

- Definition of Critical Step
- Practice/Examples
 - Recognizing a Critical Step
 - Choosing appropriate Defenses



Critical Step

An action that, if performed improperly, will trigger **immediate, irreversible, and/or intolerable** harm.

Entering a
confined space

Clicking "Send"
on an email

Responding to
an angry
customer

Remembering
anniversaries

Stepping onto
Ice

Energizing a line

Merging onto a
busy freeway

Performance
Discussion with
an employee

Buckling a child's
seatbelt

Turning the key
in the ignition

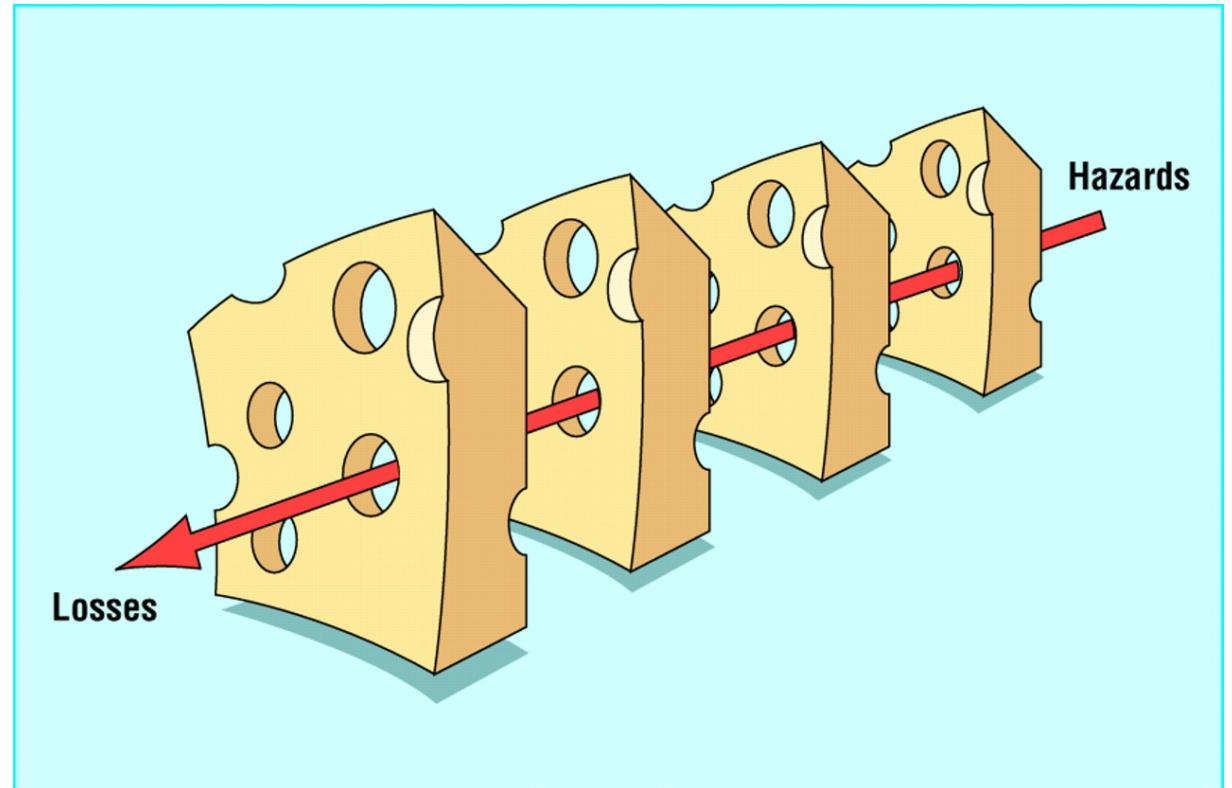
James Reason's "Swiss Cheese"

Summarize Critical Steps

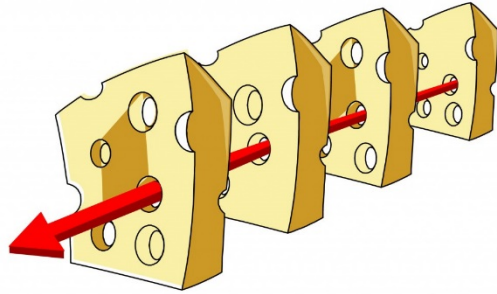
Anticipate errors / error precursors

Foresee probable, worst-case for each

Evaluate defenses to prevent or recover from errors



Planned detailed steps
Rest (get energy back)
Sit down & use hands
Call Lisa

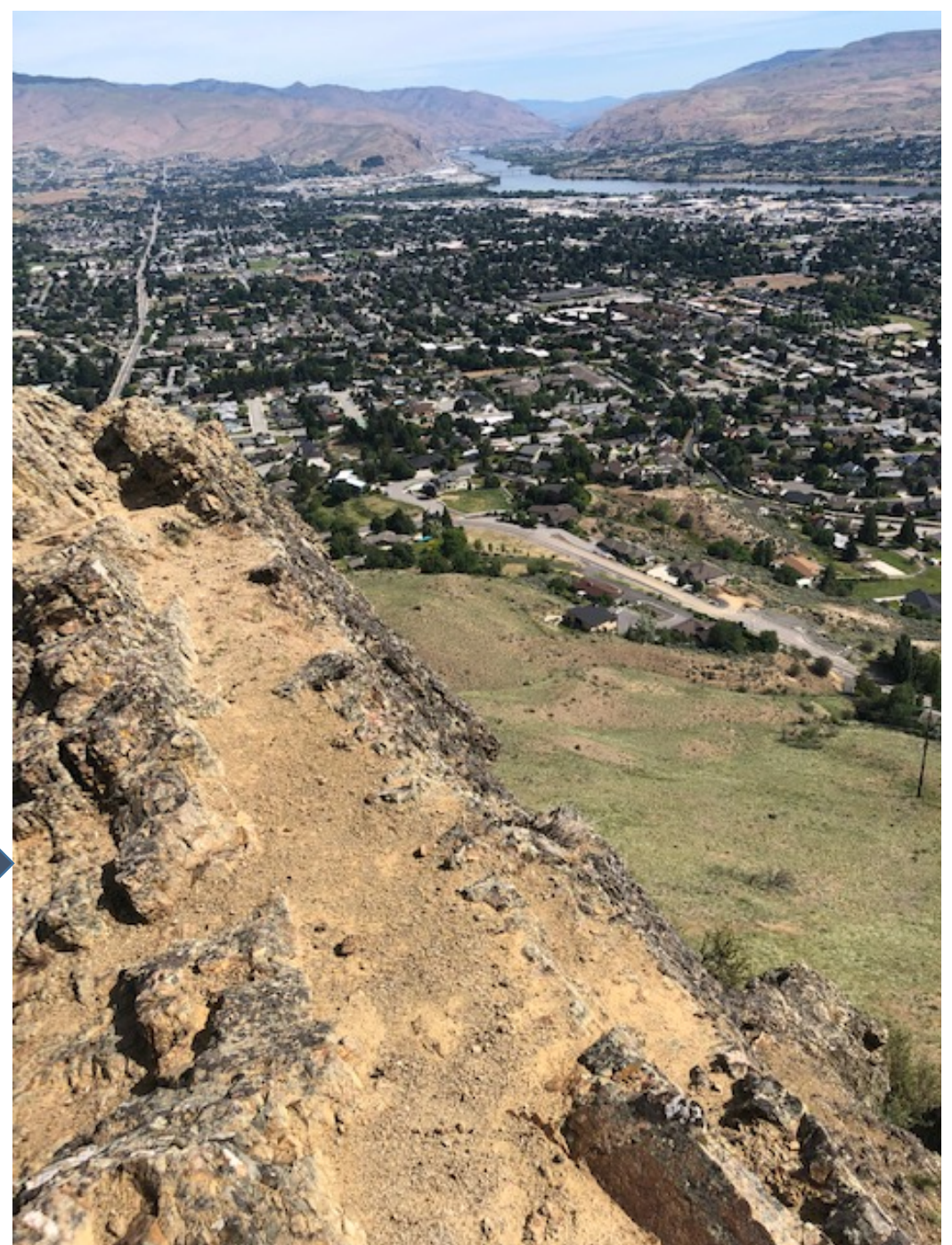
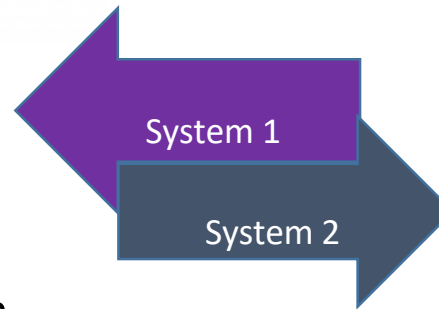


Summarize Critical Steps

Anticipate errors / error precursors

Foresee probable, worst-case for each

Evaluate defenses to prevent or recover from errors



Performance
Mode

Description

Long Term
Error Rate

Skill-based

Something I've practiced
to muscle memory

1 in 1000

Rule + : a great procedure I've practiced

Rule-
based

Following an effective
rule or procedure

1 in 100

Knowledge
-based

Everything else: the new,
the unproceduralized,
and the unmastered

1 in 2

The Art of Taking A Charge

Getty Images



John Autey-St. Paul Pioneer Press



2010 NBAE

Rick Madonik/Toronto Star



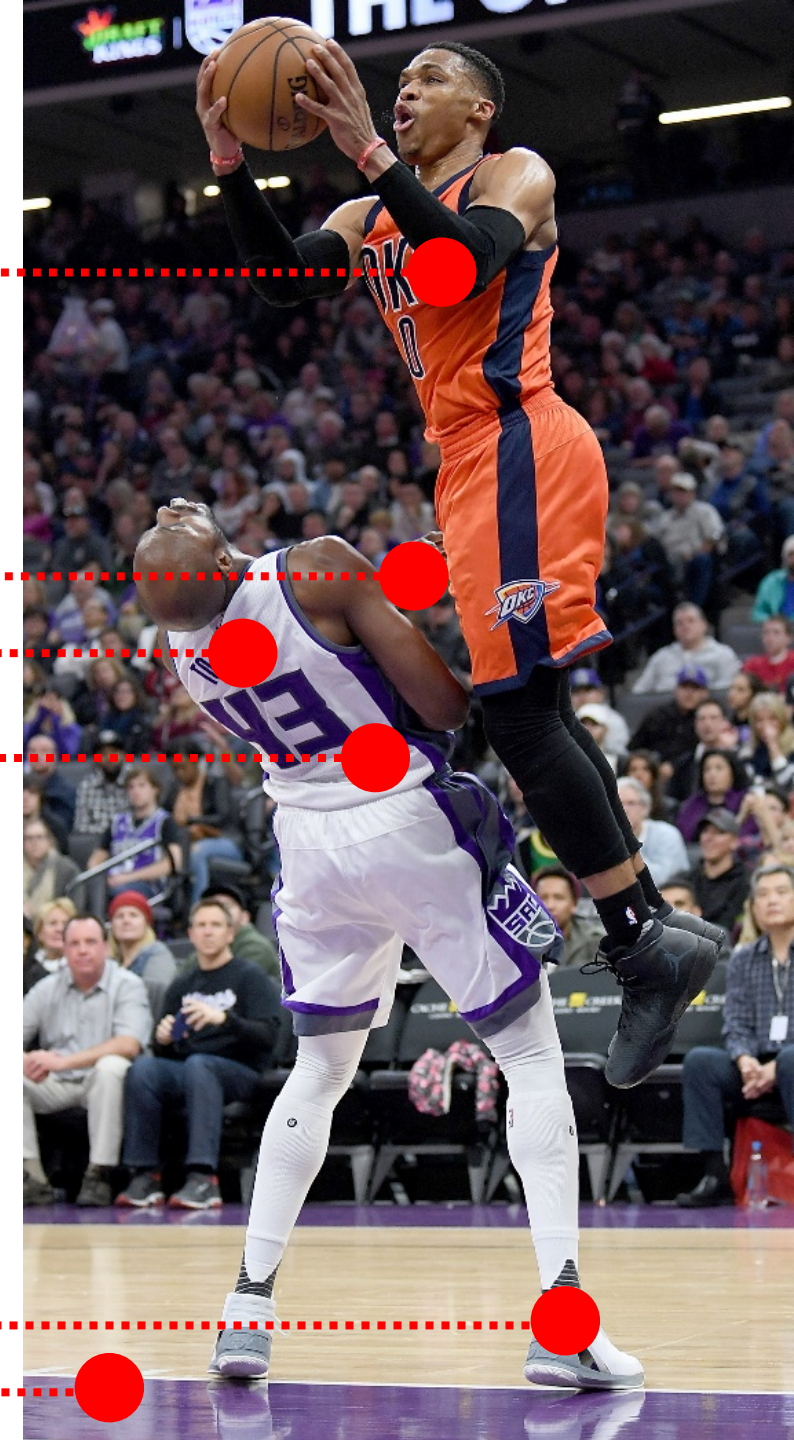
2009 NBAE

Thearon W. Henderson / Getty Images



Anatomy of Taking a Charge

- **Visualize:** Opponent's path ←
- **Don't touch:** No 'check' ←
- **Get set:** squared to opponent ←
- **Stop:** commit & don't move ←
- **Feet firm:** both planted ←
- **Court vision:** Outside of restricted arc ←
- **Take a hit:** you must fall down – backwards!





SAC 87 LAL 81 4TH 4:26 19 FAN NIGHT

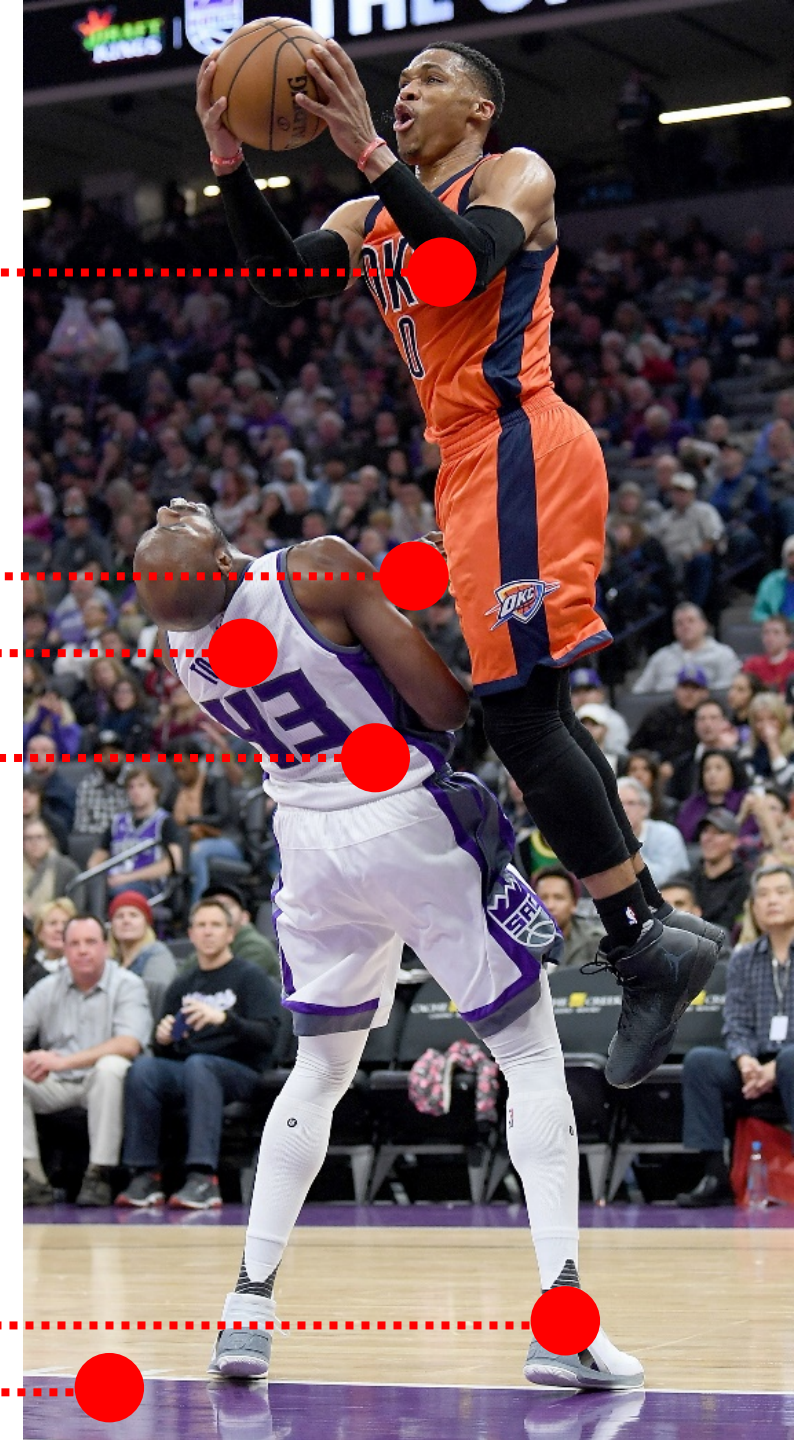
NBA SCORES

LIVE



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