

Smarter Regulation Through Behavioral Science

Moving human services licensing from **anecdote to science**

Dr. Sonya Stevens, NARA

Learning Objectives

1. Learn how and why how people respond to regulation.
2. Understand why more enforcement doesn't always improve safety
3. Learn a smarter way to focus oversight where risk is highest
4. Understand how better measurement leads to better public safety



Framing the Problem

Bringing Human
Behavior into the
Conversation

Why Traditional Regulation Underperforms

The Linear Fallacy

The belief that compliance behaves like a volume knob—turn it up and quality always improves.”

Drives what is called Zero-tolerance enforcement and includes exhaustive inspections & administrative overload.

The Plateau Effect

Quality increases with compliance **only up to a point (98–99% compliance)**.

When systems push beyond the plateau, inspectors are incentivized to find something — anything — to justify the inspection.

Effective systemic risk management requires mapping cognitive biases onto regulatory frameworks

Cognitive Bias

The problem isn't enforcement — it's enforcement without a behavioral model."



Regulation must be grounded in:

- Behavioral science
- Organizational dynamics
- Empirical outcome measurement

**What drives
human behavior
under regulation?**



Prospect Theory



Loss Aversion

Citations, penalties, and threats to licensure are processed psychologically as losses, not feedback.



Certainty Effect

When expectations are clear and outcomes are reliable, providers become risk-averse and compliance-oriented.

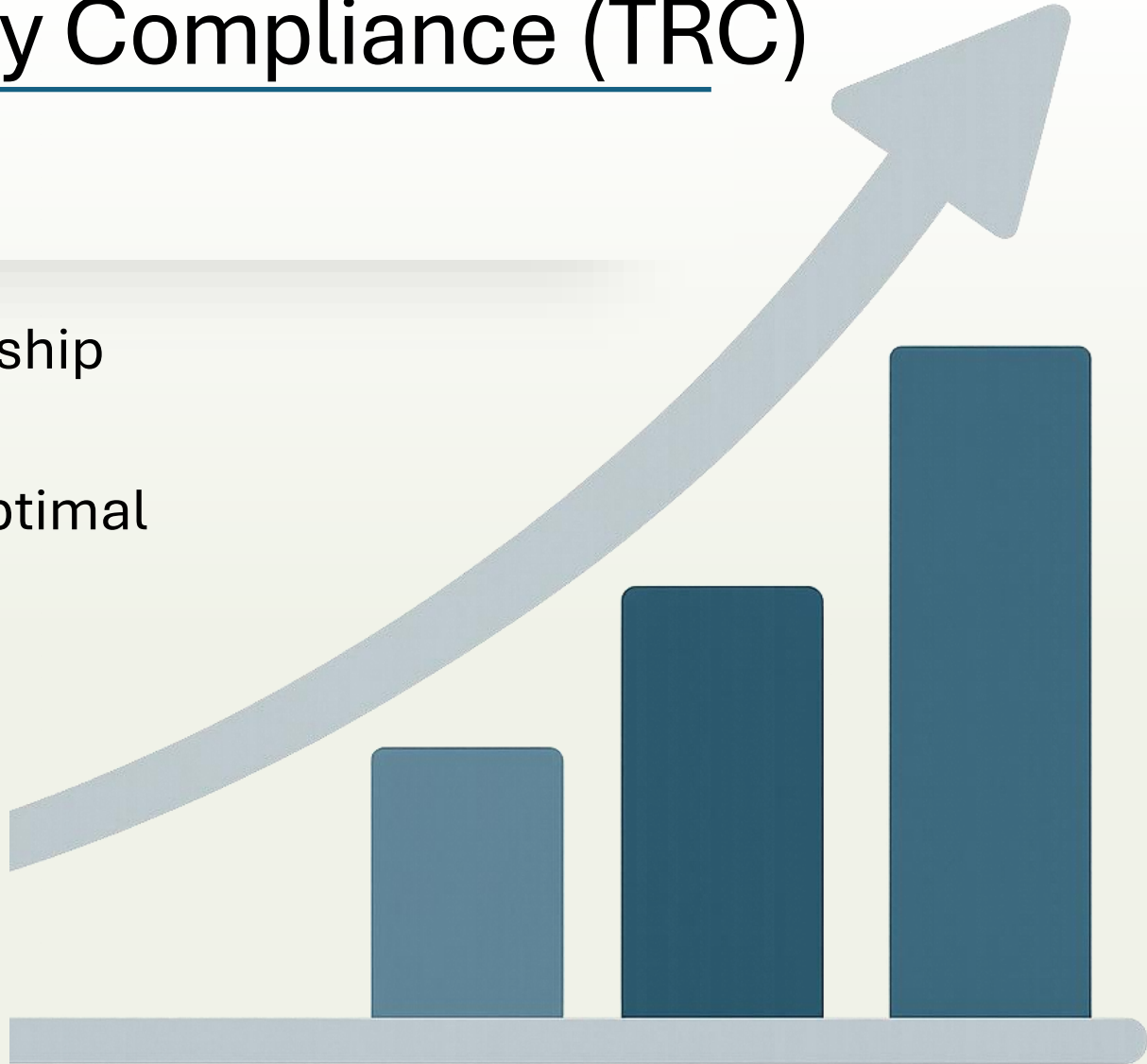


Risk Seeking

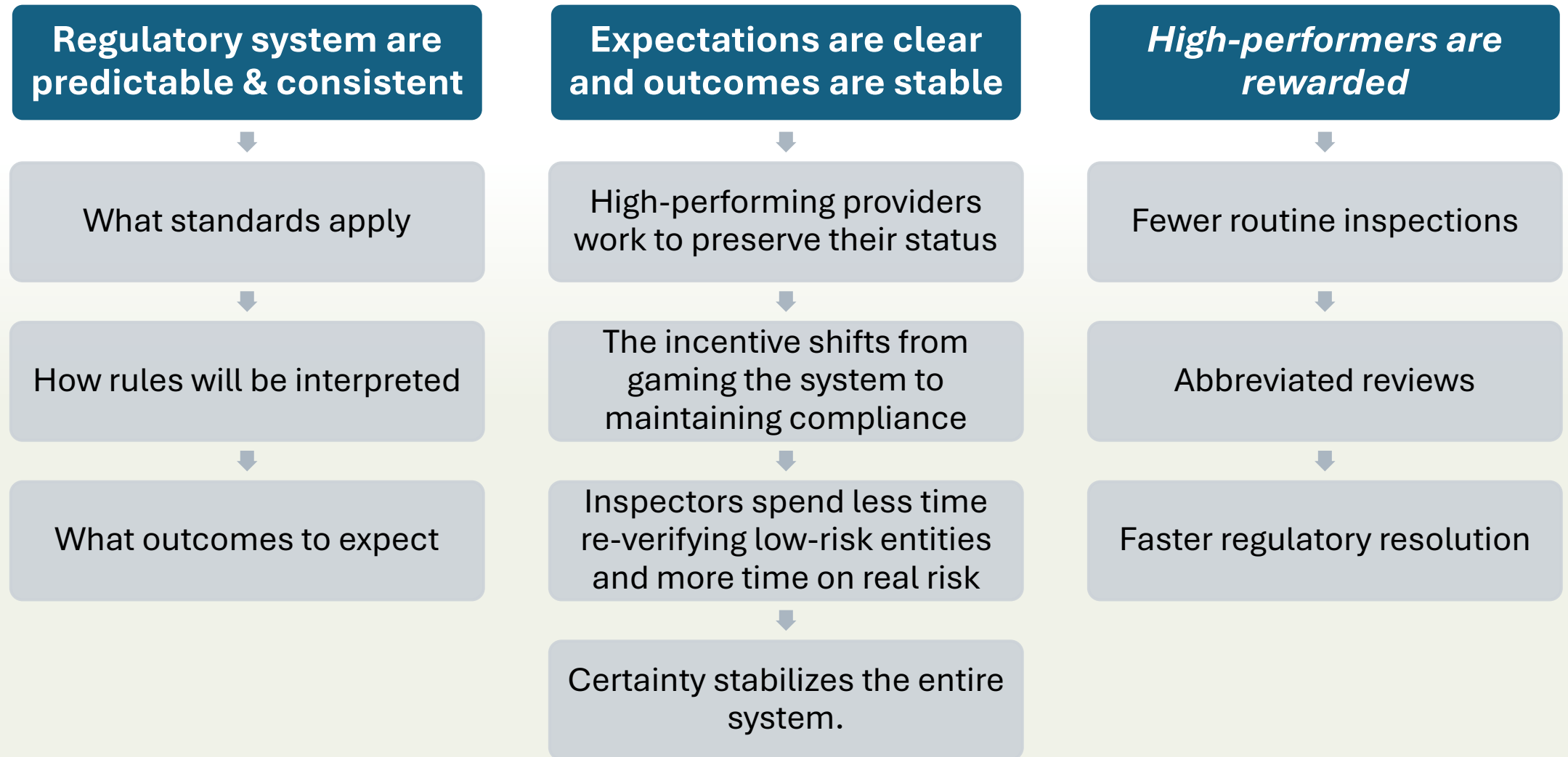
What looks like reckless or unethical behavior is predictable psychological behavior under perceived certainty of loss.

Theory of Regulatory Compliance (TRC)

- Compliance–quality relationship is curvilinear, not linear
- Substantial compliance is optimal
- Supports:
 - Differential monitoring
 - Targeted inspections
 - Risk-based oversight



Certainty as a Regulatory Resource

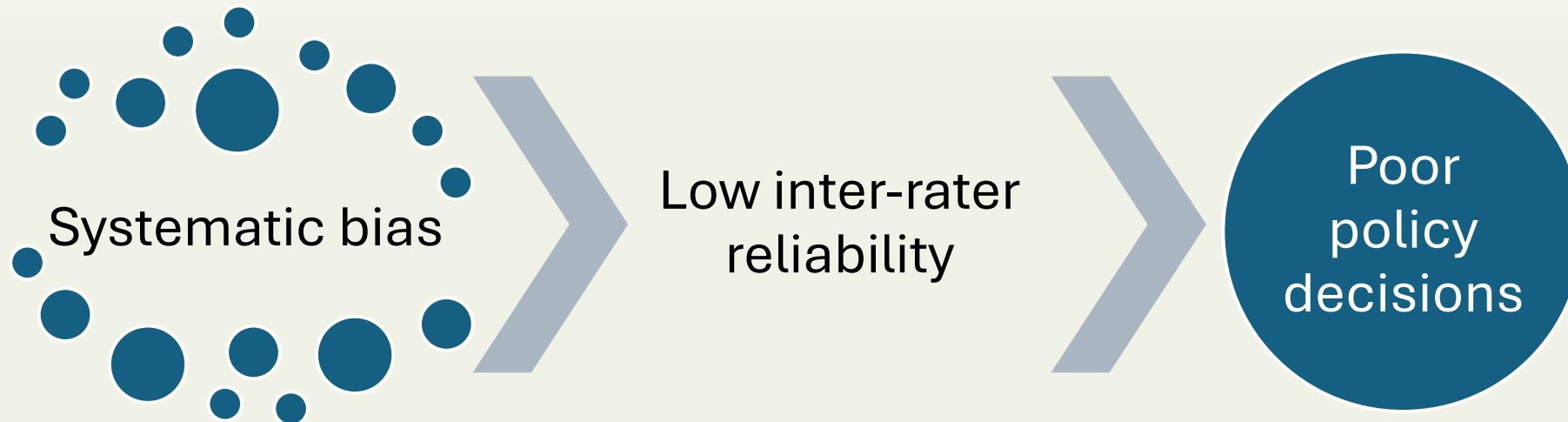


The Measurement Problem in Licensing

Binary Data Is the Core Limitation!

Binary systems:

- Collapse nuanced performance into a single outcome
- Treat minor administrative issues the same as serious safety risks
- Provide very little insight into *how certain* an inspector's decision is



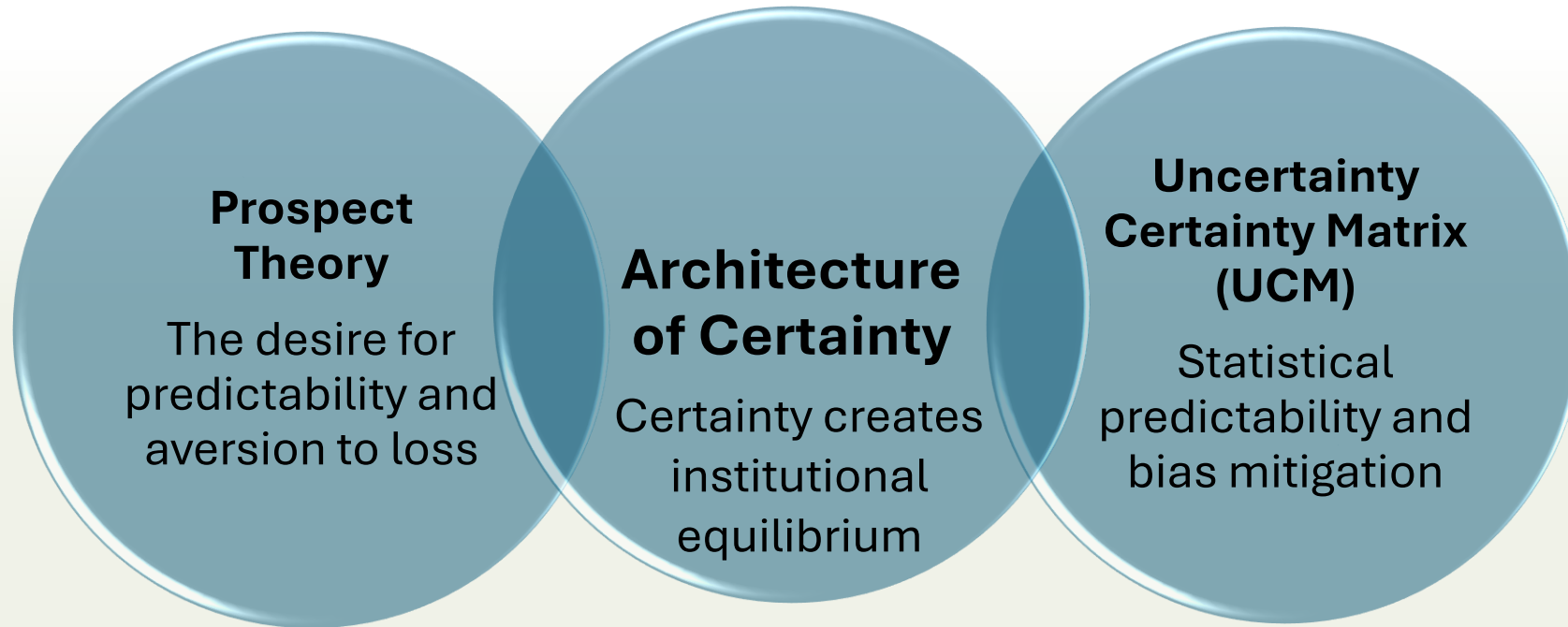
Uncertainty-Certainty Matrix (UCM)

Inspector Decision Regarding Compliance

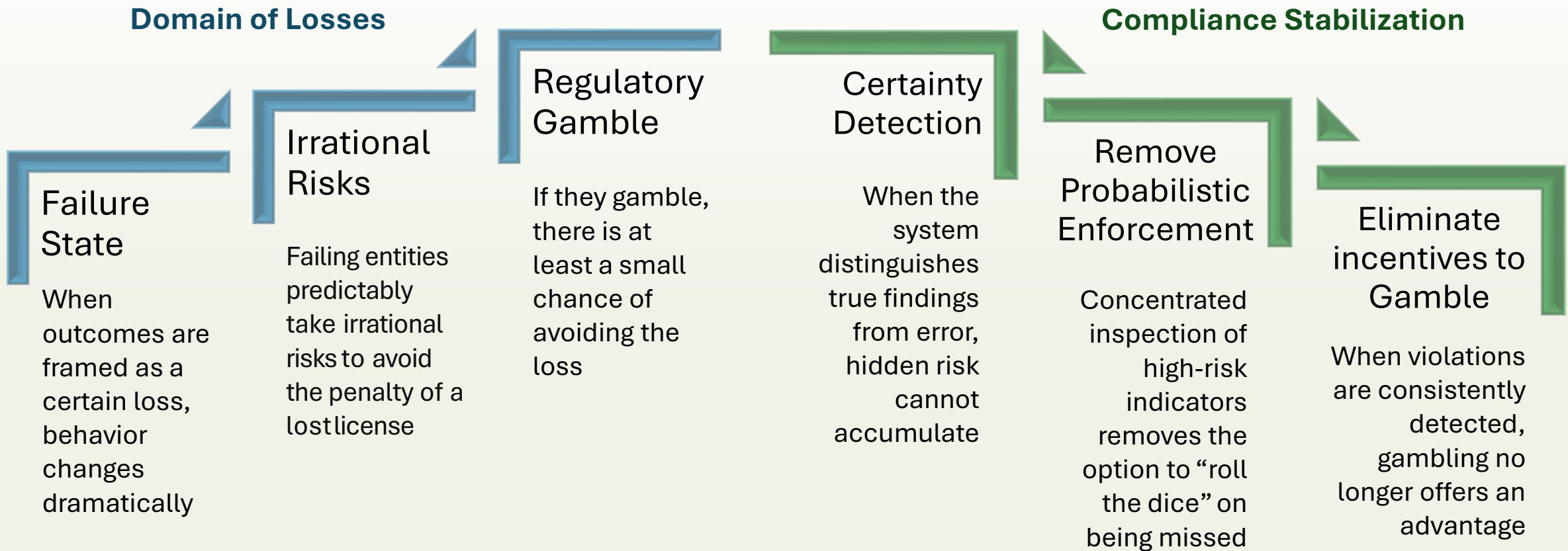
		(+) In Compliance	(-) Not in Compliance
Actual State of Compliance	(+) In Compliance	Agreement (True Positive) The decision is “in compliance” and the actual state is “in compliance”. This is a correct, certain outcome.	Disagreement (False Positive) The decision is “not in compliance” but the actual state is “in compliance”. An uncertainty to be minimized.
	(-) Not in Compliance	Disagreement (False Negative) The decision is “in compliance” but the actual state is “not in compliance”. The most dangerous uncertainty.	Agreement (True Negative) The decision is “not in compliance” and the actual state is “not in compliance”. This is also a correct, certain outcome.

The Certainty Effect

Once a provider reaches a high-certainty state of compliance, the frequency of inspections can safely drop because the risk has already been mitigated.



Domain of Losses



Inspector Bias Patterns

Driven by a desire for
safe authority and
low-risk scenarios



Negatives Bias

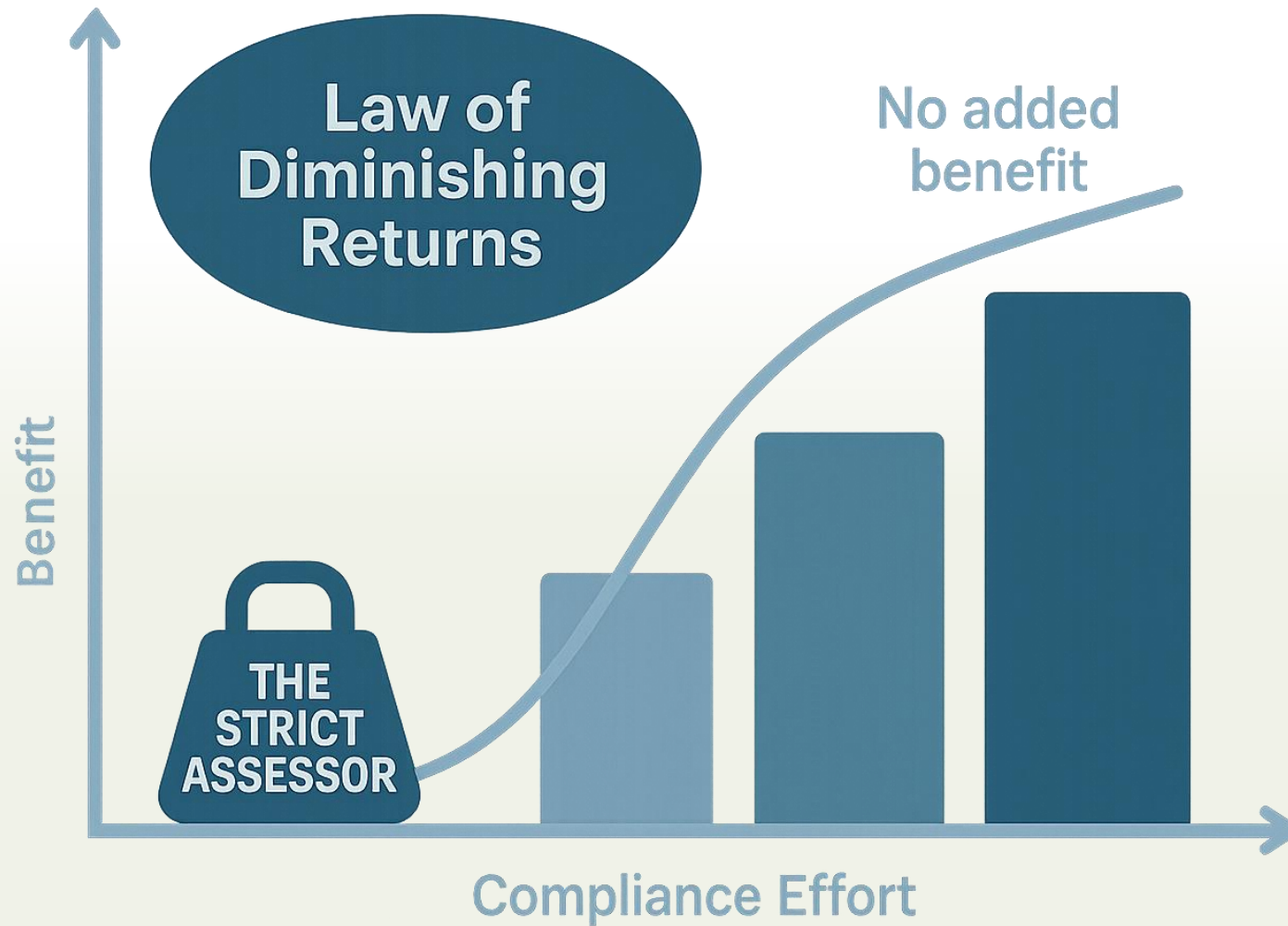
Driven by a desire to
avoid conflict and
work related to
high-risk citations



Positive Bias

When an inspector cannot reach a state of certainty, they regress to their domain of psychological bias.

The Law of Diminishing Returns



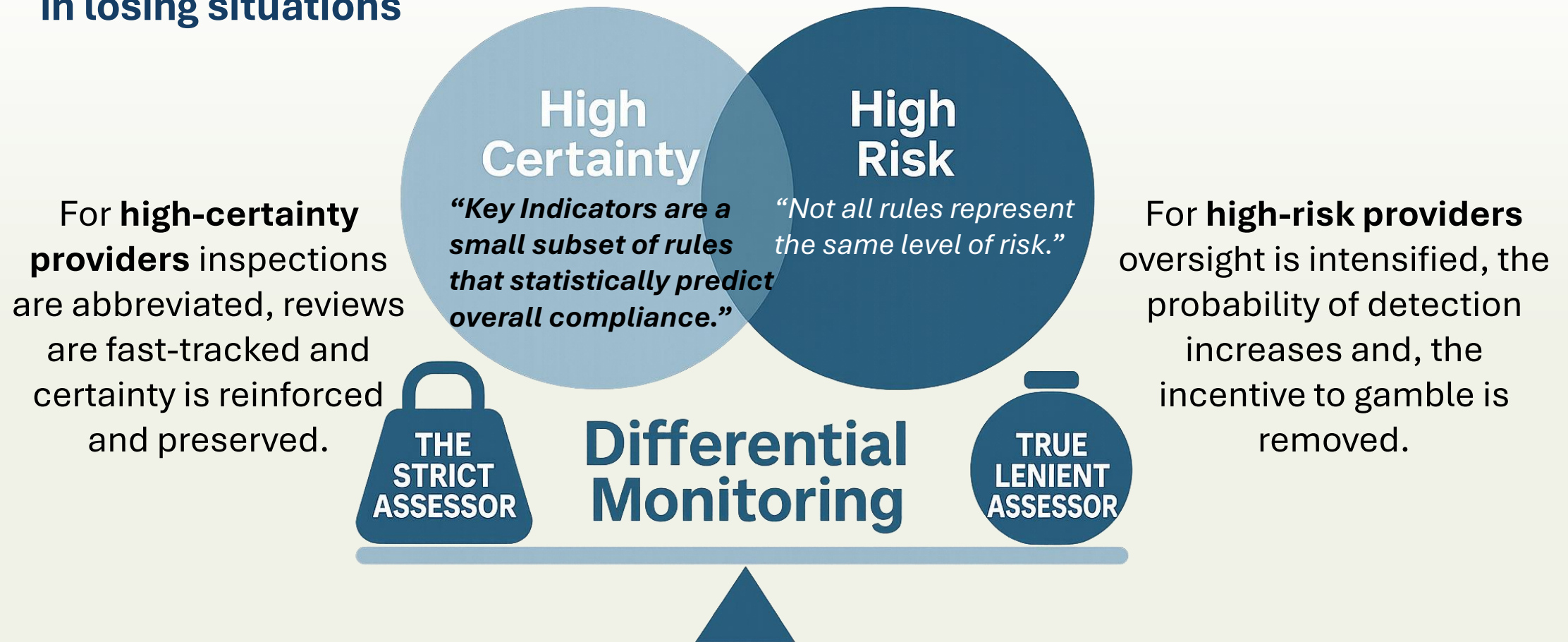


Bringing it together

*Combining Behavioral
Science and Regulatory
Science*

Differential Monitoring & Risk-Based Oversight

Risk-based monitoring mathematically counteracts the human instinct to gamble in losing situations



"Differential monitoring is not leniency—it is precision."

Behavioral Framing in Enforcement

The same regulatory action can produce very different behavior depending on how it is framed.

Under Prospect Theory, framing determines whether providers remain **risk-averse and cooperative** or shift into **risk-seeking behavior**.



Gain Frame

“Maintaining compliance ensures you keep your “five Star” rating.”

→ **Phycological Result:** Promotes stable, risk-adverse behavior.



Loss Frame

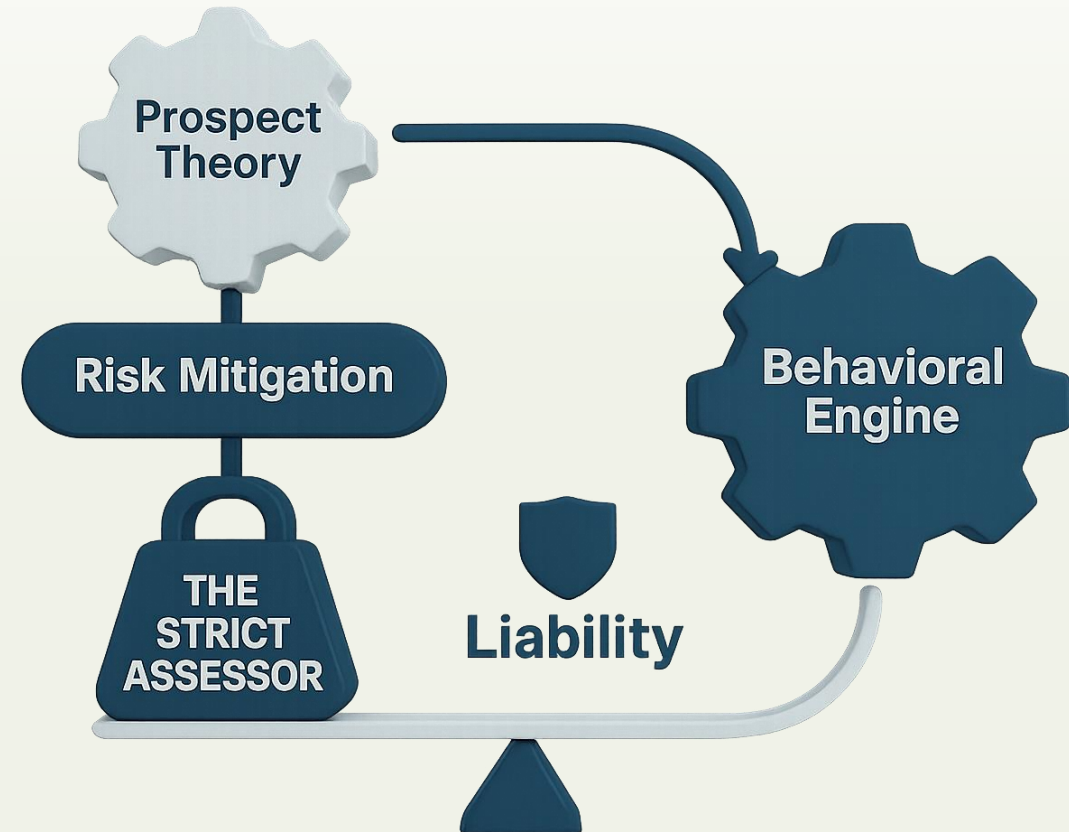
“Failure to fix this will result in a \$500 fine.”

→ **Phycological Result:** Triggers defensive risk-seeking behavior.

Risk Mitigation, Liability & the Behavioral Engine

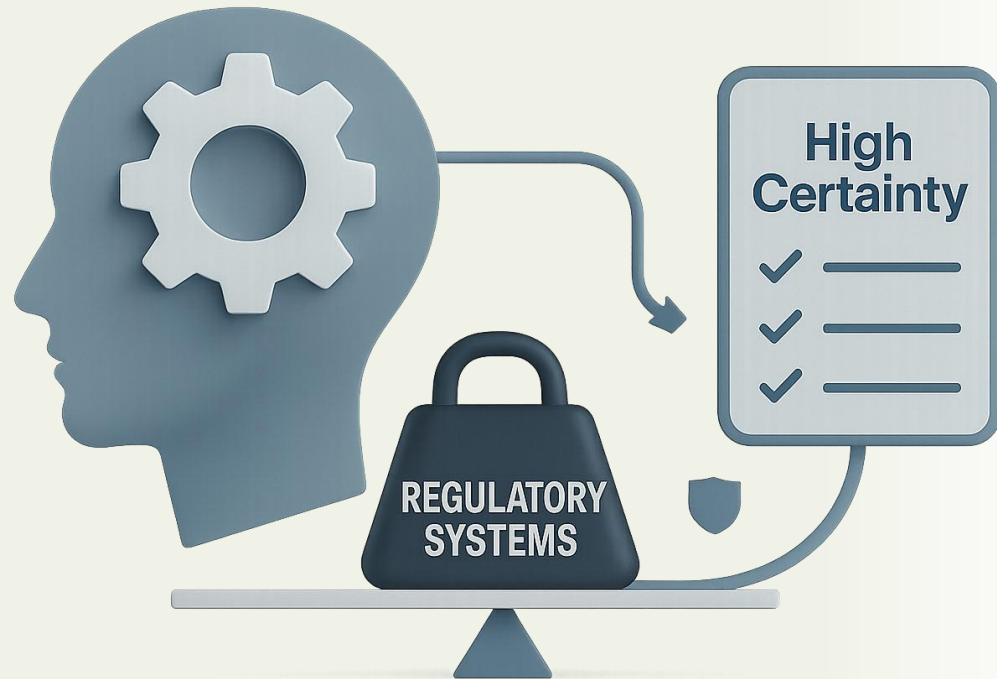
Prospect Theory is essentially the engine that makes Fiene's risk-based monitoring necessary

- Aligns regulation with behavioral science
- Improves safety without expanding enforcement
- Produces more reliable data
- Reduces preventable harm and liability



Summary

Smarter regulation aligns oversight with how people actually behave.



Key Takeaways

1. Compliance does not respond linearly to enforcement
2. Human behavior under regulation is driven by loss, risk, and certainty
3. Over-enforcement increases error, instability, and hidden risk
4. Certainty, not threat, stabilizes compliance behavior
5. Risk-based, differential monitoring reduces harm and liability



Thank You

sonyastevens@naralicensings.org

- Ayres, I., & Braithwaite, J. (1992). *Responsive regulation: Transcending the deregulation debate*. Oxford University Press.
- Fiene, R. (2016). Risk-based monitoring for human service programs: Optimizing oversight while reducing burden. *Child Welfare*, 94(1), 1–20.
- Hood, C., Rothstein, H., & Baldwin, R. (2001). *The government of risk: Understanding risk regulation regimes*. Oxford University Press.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–291. <https://doi.org/10.2307/1914185>
- Sunstein, C. R. (2005). *Laws of fear: Beyond the precautionary principle*. Cambridge University Press.
- Weaver, R. K. (2014). Compliance regimes and barriers to behavioral change. *Governance*, 27(2), 243–265. <https://doi.org/10.1111/gove.12032>