Problem-Solving Thinking Tools

Center for Problem-Oriented Policing

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PROBLEM-SOLVING THINKING TOOLS

INTRODUCTION

Why Use Thinking Tools?

THINKING TOOL LESSONS

Focus on the few worst

Change environments

Block opportunities

Go beyond the offender

Uncover the crime process

Build comprehensive approaches

WHO WE ARE

John Eck
Emeritis Professor
University of Cincinnati

Tamara Herold
Associate Professor
University of Nevada, Las Vegas

WHY USE THINKING TOOLS?

"If I have seen further, it is by standing on the shoulders of giants."

~ Isaac Newton

"A problem well-define is a problem half-solved."

~ Albert Einstein
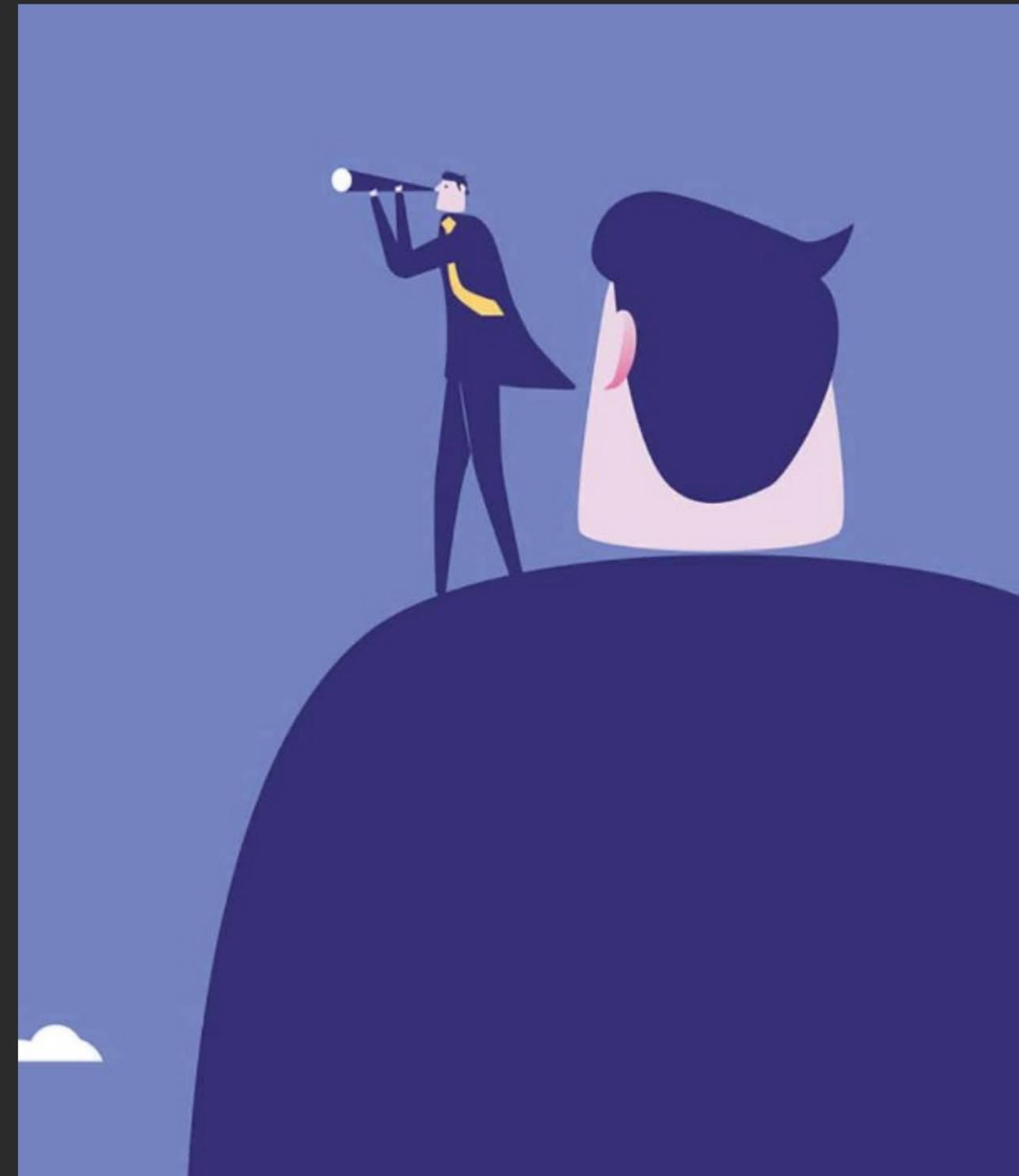
TOOL #1: The J-Curve

WHAT THIS TOOL DOES

- Focuses your energy.

Most results come from a few things
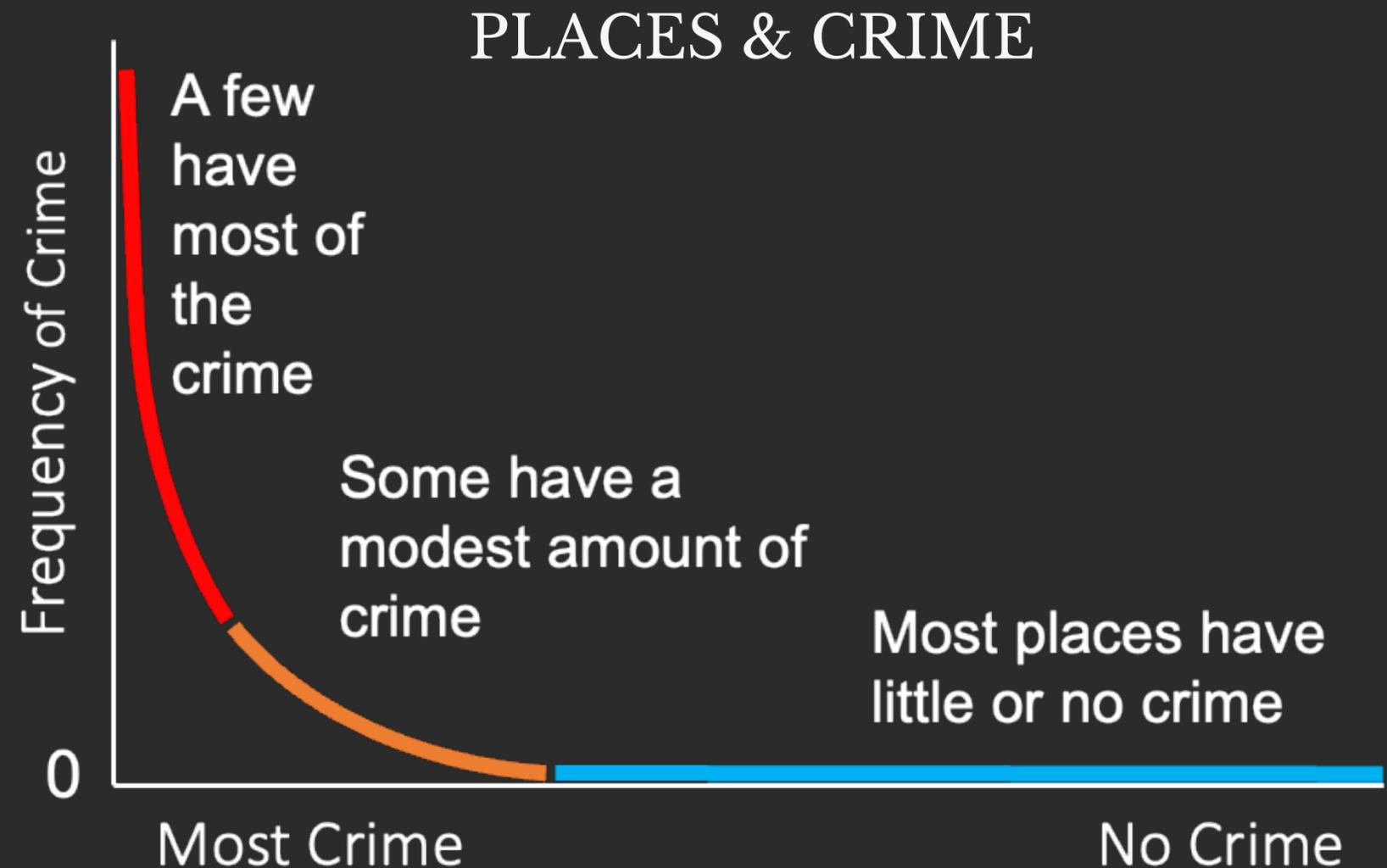
PLACES & CRIME

Frequency of Crime

A few have most of the crime

Some have a modest amount of crime

Most places have little or no crime

0

Most Crime

No Crime

TOOL #1: The J-Curve

WHAT THIS TOOL DOES

- Focuses your energy.

THE RULE OF 80/20

20% FOCUS HERE!

40x

42.6%

20x

25.7%

10x

14.4%

1.4%

Square Miles | Part I Crimes | P1 Violent Crimes | Shooting Victims
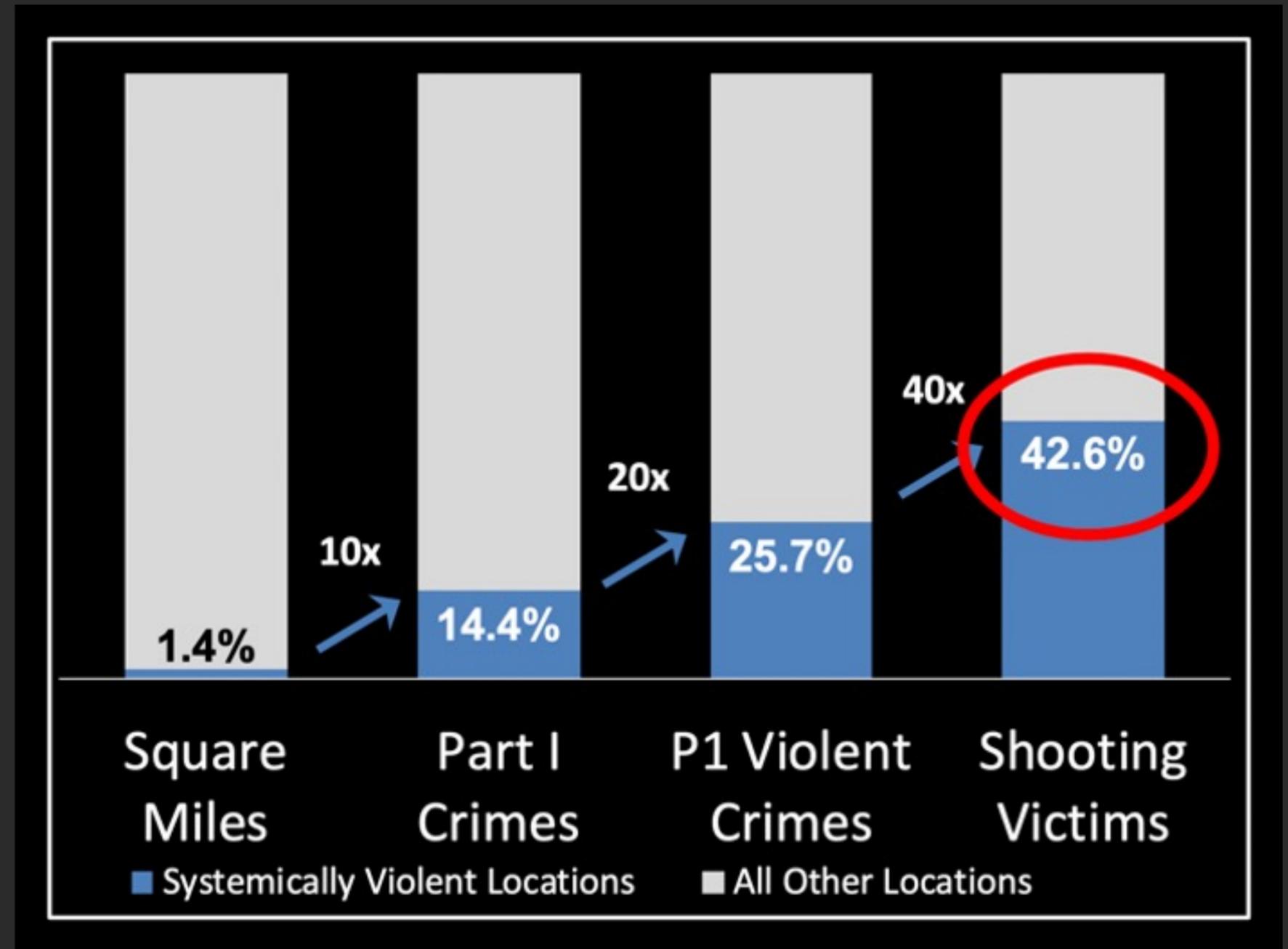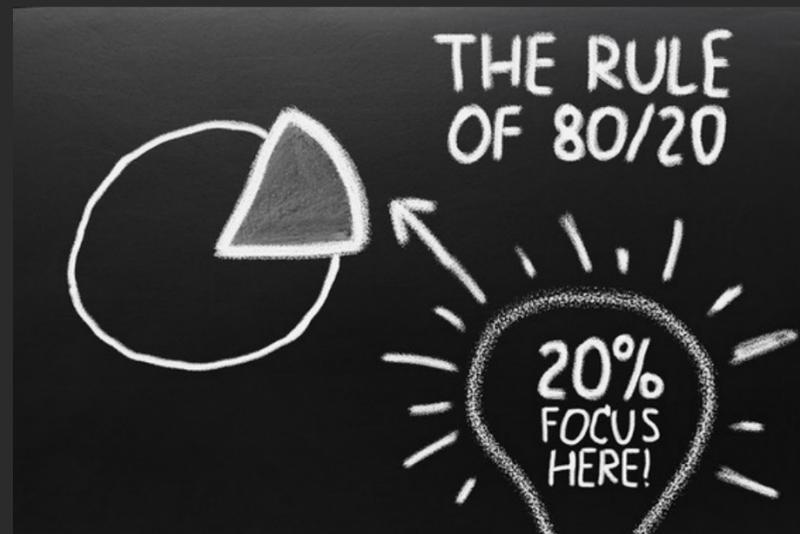
■ Systemically Violent Locations ■ All Other Locations

TOOL #2: Crime Prevention Through Environmental Design

WHAT THIS TOOL DOES

- Helps us design crime-deterring places.

- Encourages "space activation" to improve lives and keep crime away.

Gregory Saville
gregorysaville@gmail.com

CPTED's Evolution

CPTED 1	CPTED 2	CPTED 3
Messages to the Offender	**Engaging Community**	**Sustaining Change**
• **Territorial Control** *"you can't do that here"*	• **Cohesion** *"we work together"*	• **Economic** *"local businesses, farmers markets"*
• **Natural Surveillance** *"we see you"*	• **Connectivity** *"no one is an island"*	• **Public Health** *"mental health, physical activity"*
• **Access Control** *"you're entering our space"*	• **Culture** *"we play together"*	• **Environmental** *"green spaces, remove heat islands"*
• **Image** *"clean it, manage it"*	• **Capacity - Land Use** *"tipping points"*	• **Social** *"livability academies"*

TOOL #2: CPTED

Thought Experiment

| CPTED 1 Messages to the Offender	CPTED 2 Engaging Community	CPTED 3 Sustaining Change
• **Territorial Control** *"you can't do that here"* • **Natural Surveillance** *"we see you"* • **Access Control** *"you're entering our space"* • **Image** *"clean it, manage it"*	• **Cohesion** *"we work together"* • **Connectivity** *"no one is an island"* • **Culture** *"we play together"* • **Capacity - Land Use** *"tipping points"*	• **Economic** *"local businesses, farmers markets"* • **Public Health** *"mental health, physical activity"* • **Environmental** *"green spaces, remove heat islands"* • **Social** *"livability academies"*

TOOL #3: Situational Crime Prevention

WHAT THIS TOOL DOES

- Offers 25 ways to block crime opportunities.
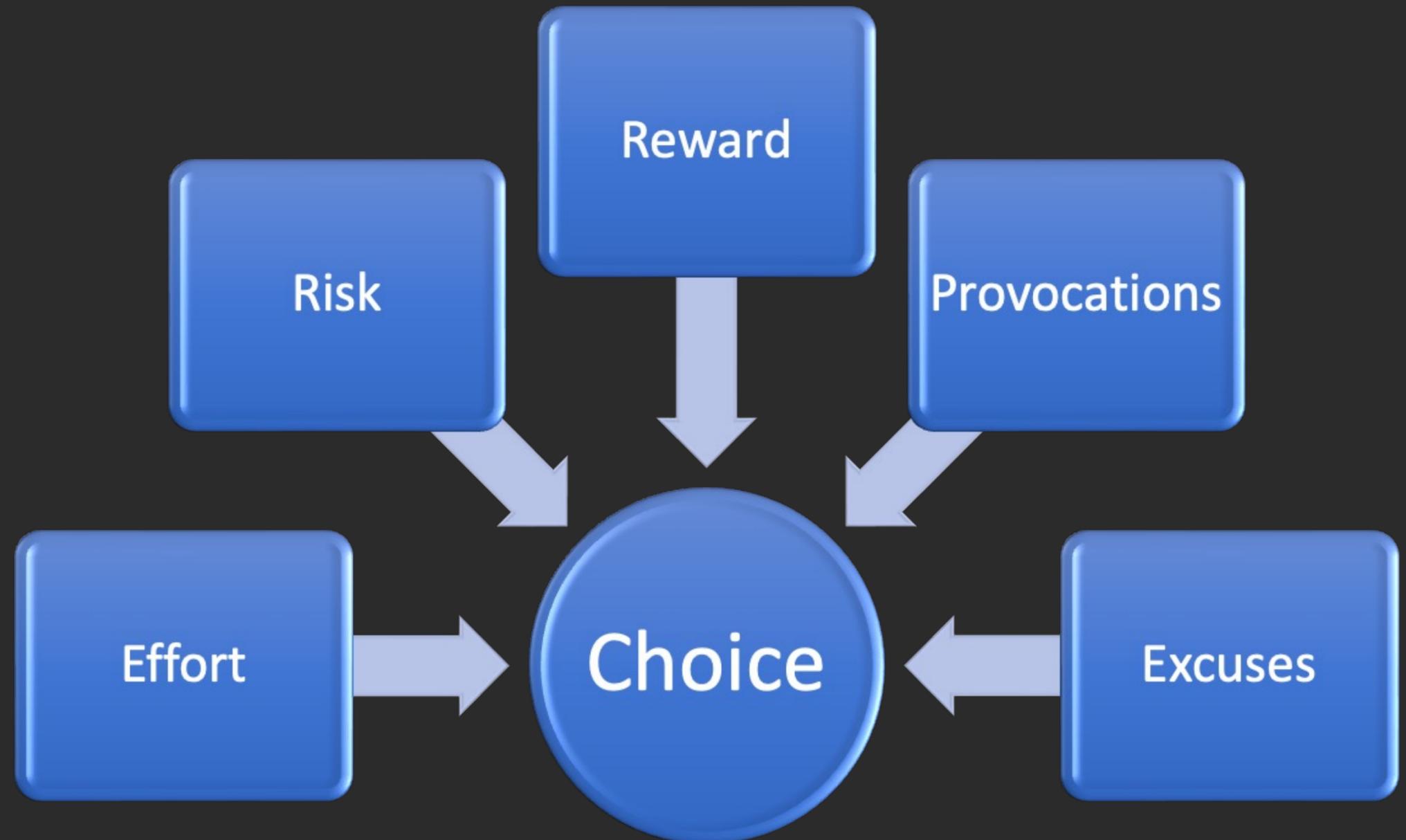
TOOL #3: Situational Crime Prevention

6:00PM
Las Vegas Blvd closed to
vehicle traffic – barricades
keep pedestrians on sidewalks

Geographic Features

| Casino | Las Vegas Blvd | Barricade | Crowd | Police officers |
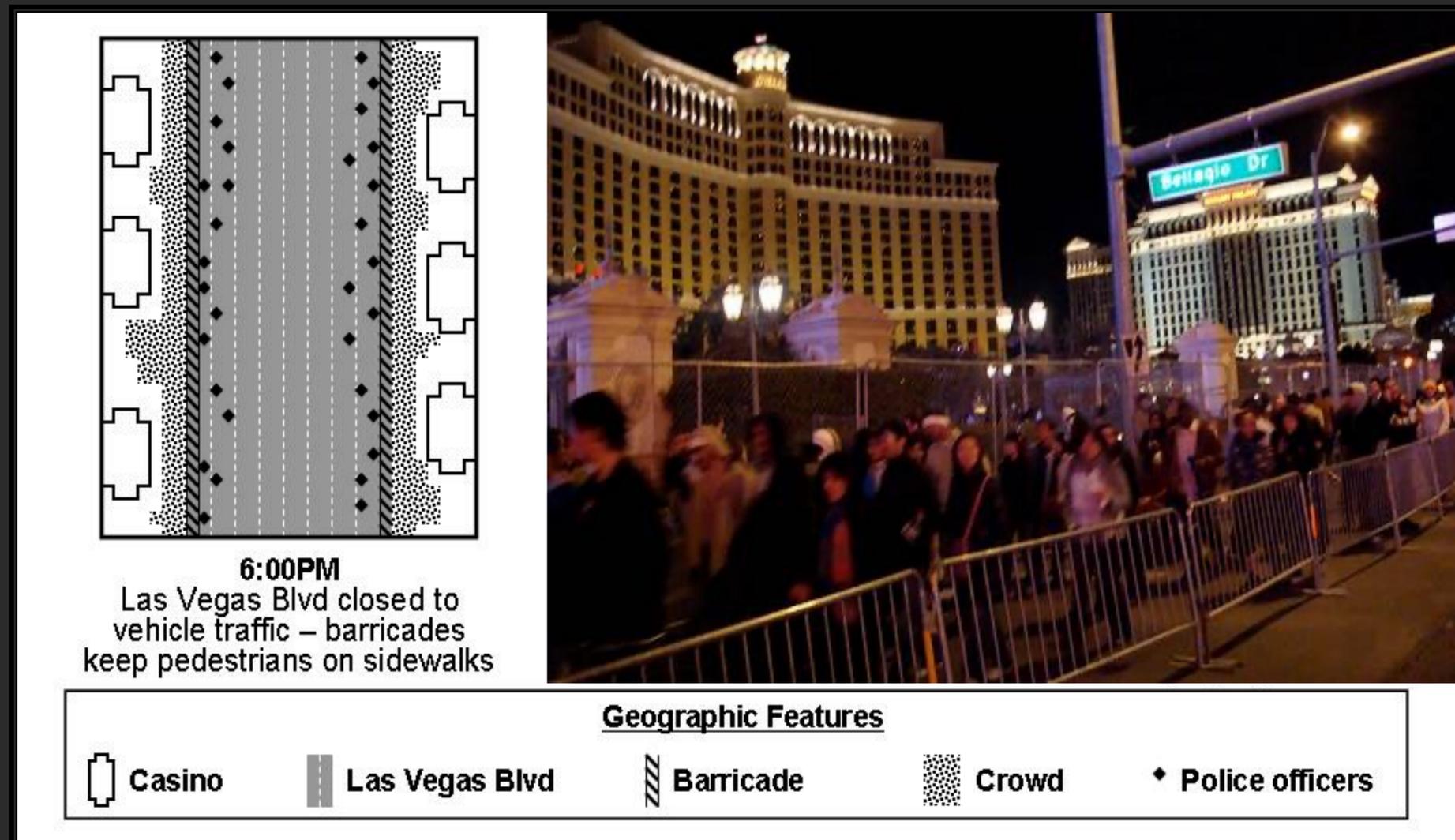
EFFORT
- Protects officers from crowd
- Plastic cup distribution

RISK
- Officer surveillance

REWARD
- Trash bins secured

PROVOCATIONS
- Manage crowd density

EXCUSES
- Officer visibility/availability

TOOL #3: Situational Crime Prevention

1 → **2** → **3**

1	2	3
Focus on individual harms	Use table to identify interventions (systematically)	Alter as many opportunity dimensions as possible

Increase the Effort	Increase the Risks	Reduce the Rewards	Reduce Provocations	Remove Excuses
Harden targets • Steering column locks and immobilisers • Anti-robbery screens • Tamper-proof packaging	**Extend guardianship** • Take routine precautions: go out in group at night, leave signs of occupancy, carry phone • "Cocoon" neighborhood watch	**Conceal targets** • Off-street parking • Gender-neutral phone directories • Unmarked bullion trucks	**Reduce frustrations and stress** • Efficient queues and polite service • Expanded seating • Soothing music/muted lights	**Set rules** • Rental agreements • Harassment codes • Hotel registration
Control access to facilities • Entry phones • Electronic card access Baggage screening	**Assist natural surveillance** • Improved street lighting • Defensible space design • Support whistleblowers	**Remove targets** • Removable car radio • Women's refuges • Pre-paid cards for pay phones	**Avoid disputes** • Separate enclosures for rival soccer fans • Reduce crowding in pubs • Fixed cab fares	**Post instructions** • "No Parking" • "Private Property" • "Extinguish camp fires"
Screen exits • Ticket needed for exit • Export documents • Electronic merchandise tags	**Reduce anonymity** • Taxi driver IDs • "How's my driving?" decals • School uniforms	**Identify property** • Property marking • Vehicle licensing and parts marking • Cattle branding	**Reduce emotional arousal** • Controls on violent pornography • Enforce good behavior on soccer field • Prohibit racial slurs	**Alert conscience** • Roadside speed display boards • Signatures for customs declarations • "Shoplifting is stealing"
Deflect offenders • Street closures • Separate bathrooms for women • Disperse pubs	**Utilize place managers** • CCTV for double-deck buses • Two clerks for convenience stores • Reward vigilance	**Disrupt markets** • Monitor pawn shops • Controls on classified ads. • License street vendors	**Neutralize peer pressure** • "Idiots drink and drive" • "It's OK to say No" • Disperse troublemakers at school	**Assist compliance** • Easy library checkout • Public lavatories • Litter bins
Control tools/weapons • "Smart" guns • Disabling stolen cell phones • Restrict spray paint sales to juveniles	**Strengthen formal surveillance** • Red light cameras • Burglar alarms • Security guards	**Deny benefits** • Ink merchandise tags • Graffiti cleaning • Speed humps	**Discourage imitation** • Rapid repair of vandalism • V-chips in TVs • Censor details of modus operandi	**Control drugs and alcohol** • Breathalyzers in pubs • Server intervention • Alcohol-free events

TOOL #4: The Problem Triangle

3 Elements of a Problem

WHAT THIS TOOL DOES

- Shows who is involved.

- Reveals three types of solutions.
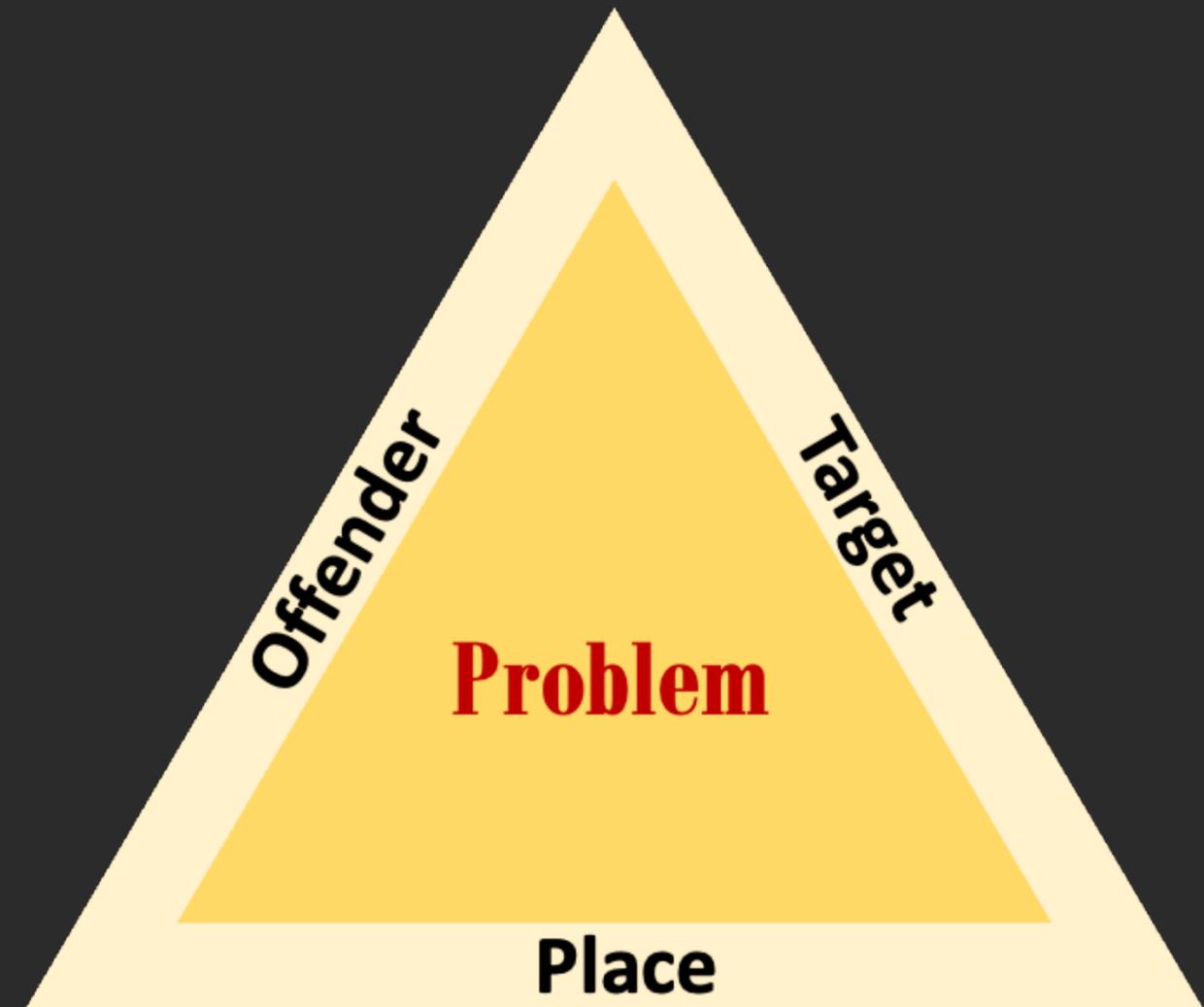
TOOL #4: The Problem Triangle

3 Elements of Control

WHAT THIS TOOL DOES

- Shows others who should be involved.

- Reveals three more types of solutions.
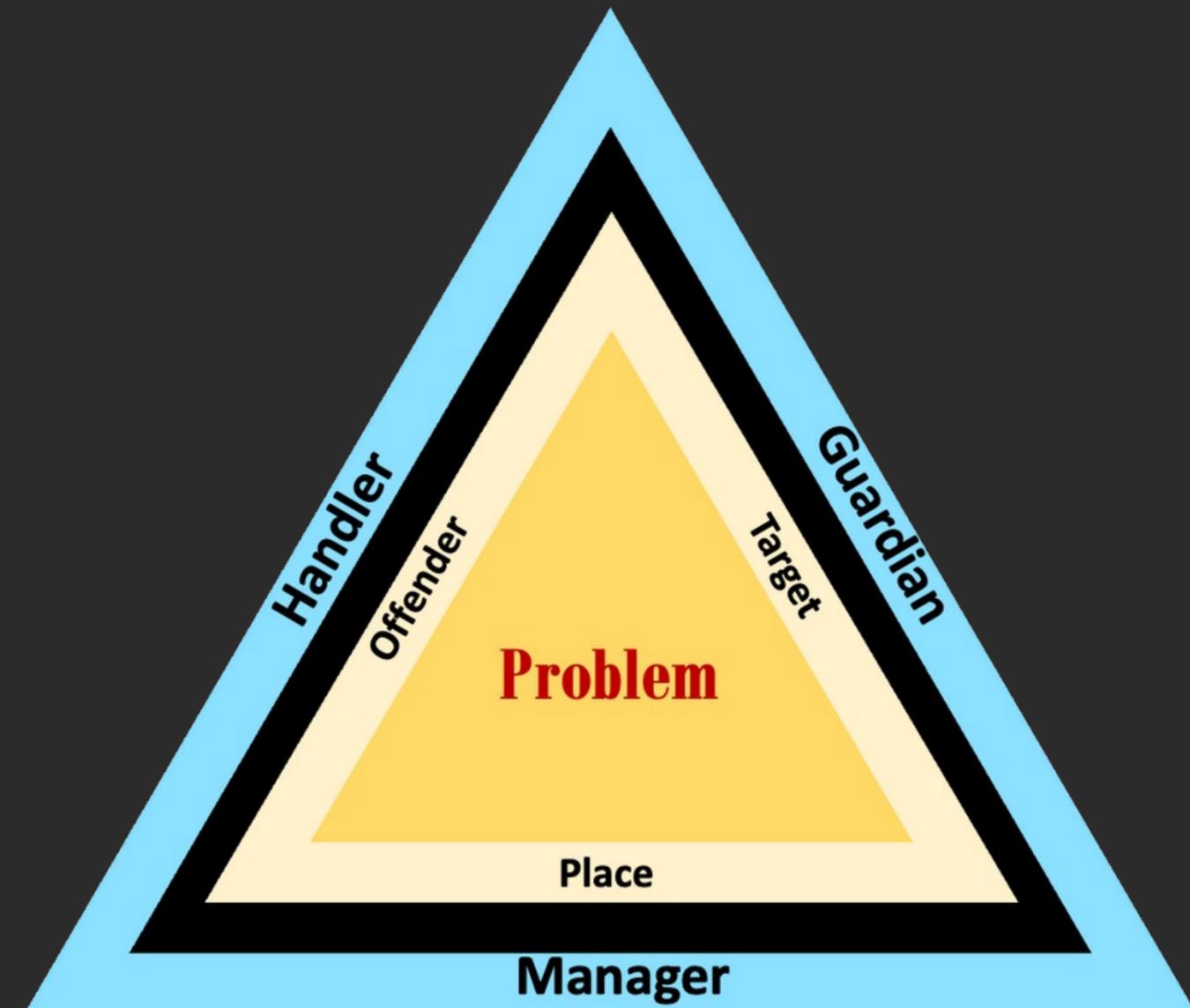
TOOL #5: Crime Scripts

WHAT THIS TOOL DOES

- Shows the problem's time course.

- Increases solution options.

Tracking Problem Creation

Before	→	During	→	After

Long Before	→	Nearly Before	→	Just Before	→
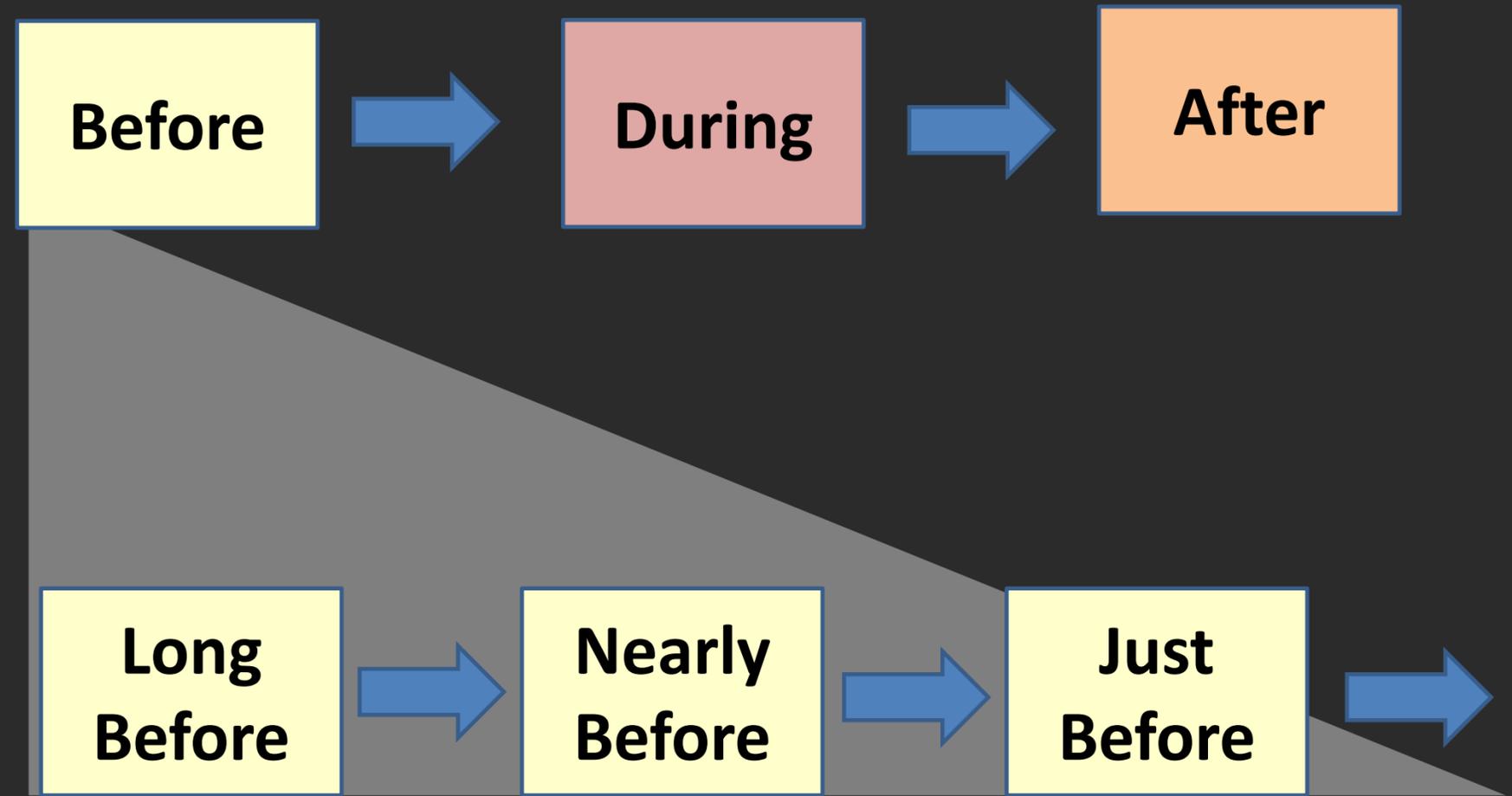
TOOL #6: General Problem Solving Matrix (GPSM)

WHAT THIS TOOL DOES

- Provides a template for a plan.

- Shows what is being done when.
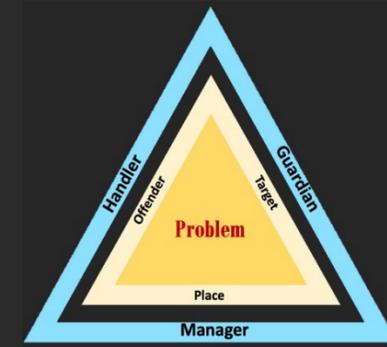
	Offender	Handler	Target	Guardian	Place	Manager
Before						
During						
After						

Before → During → After
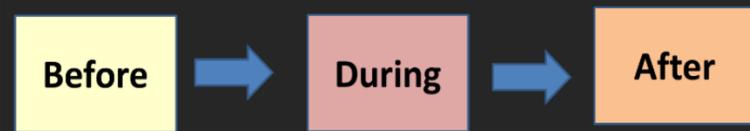
* Pronounced "gypsum." Not General Probabilistic Semantic Model, nor Global Penguin Seeking Monster

TOOL #6: General Problem Solving Matrix (GPSM)

A draft application to **Patient on Staff Hospital Violence**

By Karim Vellani
Threat Analysis Group

GPSM for Workplace Violence Type 2 in Healthcare Environments	Offender (For WV Type 2, Offender is a Patient)	Handler	Target/Victim (For WV Type 2, Victim is a Clinical Staff Member)	Guardian	Place	Manager
Before	At-Risk Patient Identification via evidence-based tool	Parent/Companion provides medical history	Awareness of Patient's At-Risk Status	Security Officer Patrols	Calm Environment	Threat Assessment Team
	Red Flag in Medical Records	EMS staff alert hospital to concerns about patient being transported	De-Escalation Training	1:1 Observation by Trained Patient Sitter	Patient Room near nurses station or Dedicated Behavioral Health Rooms	Workplace Violence Policy
	At-Risk Patient Screening (remove contraband and gown/scrubs)			Clinical Staff completes Environmental Hazard Checklist	Workplace Violence Signage	Weapons Detection System/Process
During		Parent/Companion stays in room	Emergency Code (e.g. Code Silver) Activation	Security Officer Response - Verbal and/or Physical De-Escalation	Mass Notification and Overhead Paging System	Provide all necessary resources to effectively intervene
			Use of Personal Protection Equipment	Behavioral Emergency Response Team (BERT)	Personal Protection Equipment Availability	
			Wearable Duress Alarm		Duress Alarms	
After	Behavioral Contract		Report Incident via Security/Risk Reporting System	Security Officer(s) participate in Root Cause Analysis	Install additional Behavioral Health Treatment Rooms	Provide Victim with Medical Care
	Ban / Trespass		Victim(s) participate in Root Cause Analysis		Build Secure Behavioral Health Treatment Area	Root Cause Analysis (post-incident debrief)
						Implement physical and procedural corrective measures in the Place

Summing Things Up

Problem-Solving Thinking Tools	Their Lessons
The J-Curve	Focus on the few worst
Crime Prevention Through Environmental Design (CPTED)	Change environments
Situational Crime Prevention	Block opportunities
The Problem Triangle	Go beyond the offender
Crime Scripts	Uncover the crime process
General Problem Solving Matrix (GPSM)	Build comprehensive approaches

www.popcenter.org

Tamara Herold

Associate Professor
University of Nevada, Las Vegas

John Eck

Emeritis Professor
University of Cincinnati

Tamara.Herold@unlv.edu

linkedin.com/in/tamara-herold/

+1-702-373-7828 cell

John.Eck@gmail.com