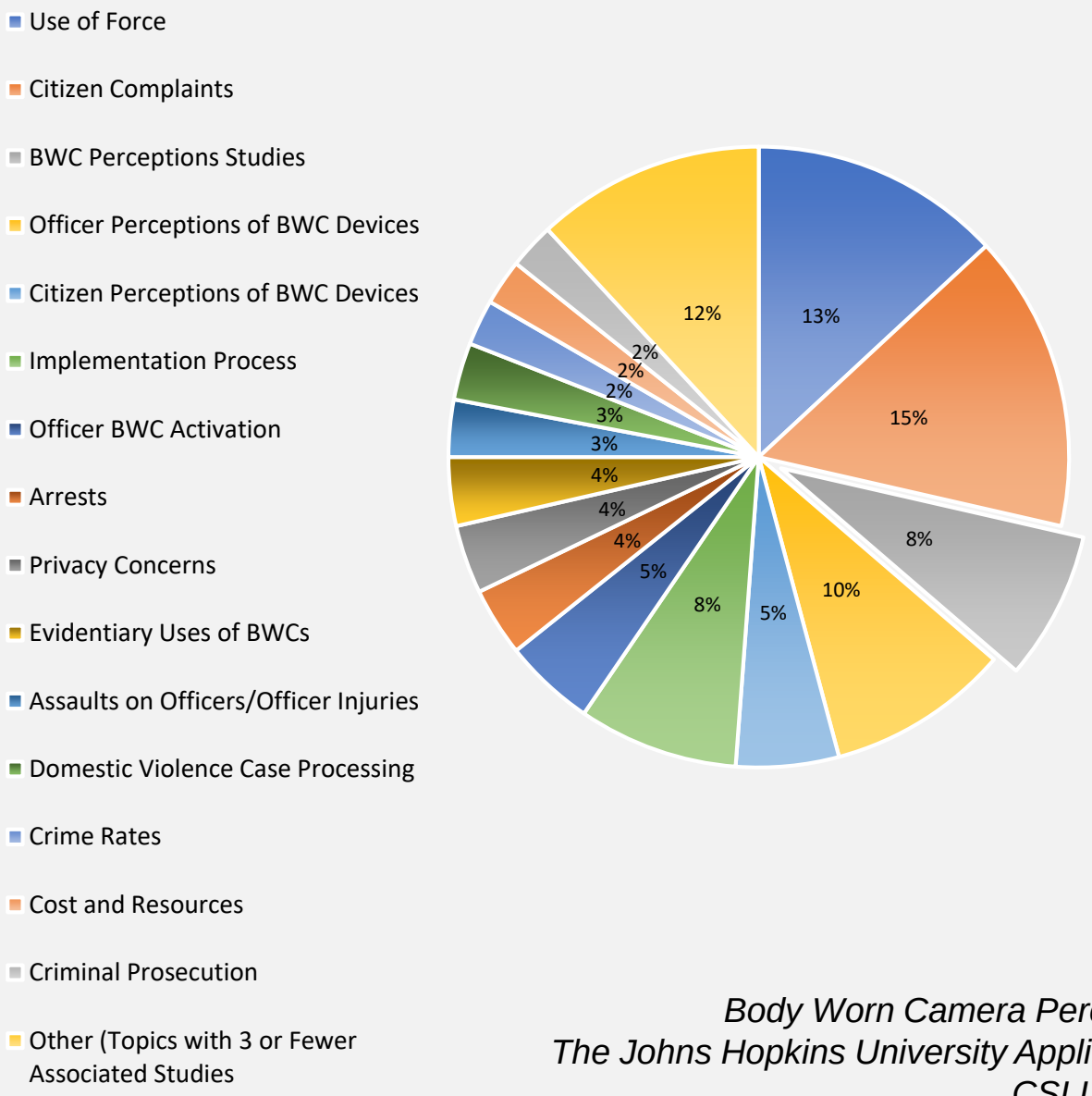
Situational and Environmental Determinants of Observed Negative Emotional States in Police-Community Interactions

David A. Makin, PhD
Complex Social Interactions Lab
Department of Criminal Justice and Criminology

Research Team
Dale Willits, PhD; Rachel Bailey, PhD; Bryce Dietrich, PhD
Rachael Brooks; Wendy Koslicki, M.A

WASHINGTON STATE UNIVERSITY
World Class. Face to Face.

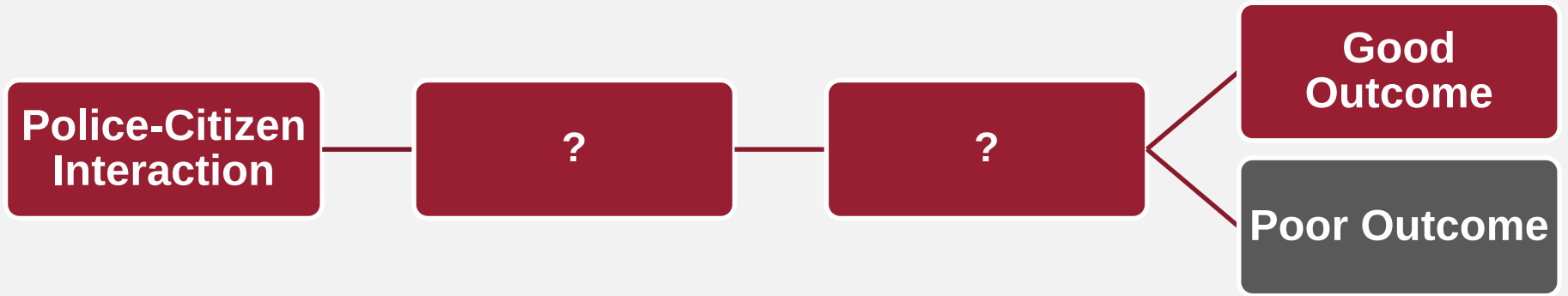
Current Reality for Policing (N=75)

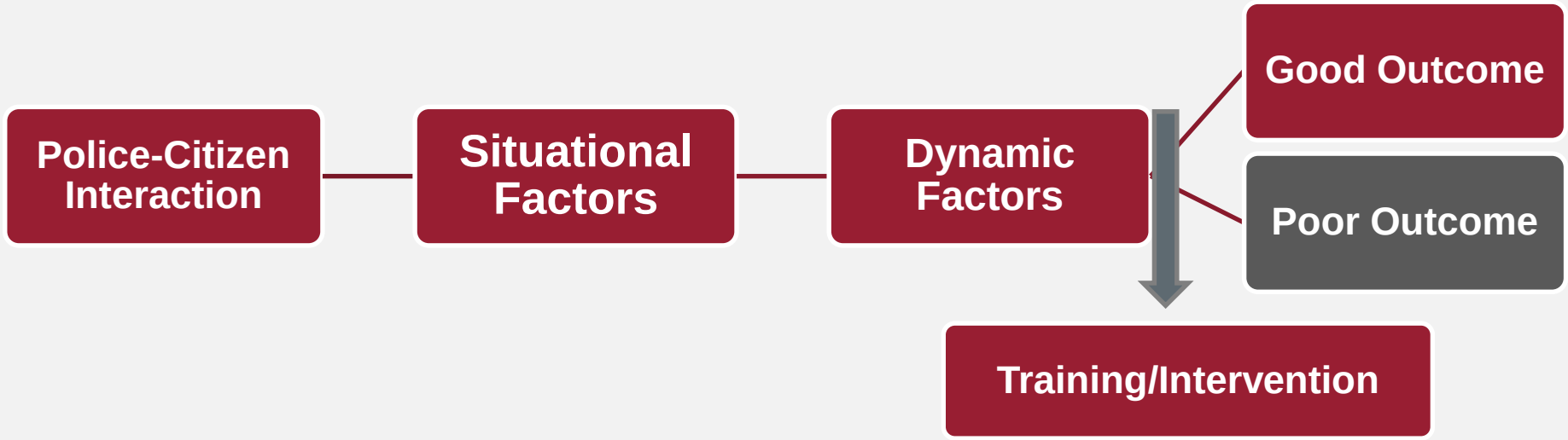


Body Worn Cameras are being treated as an **intervention** and not as a source of **valuable data**.

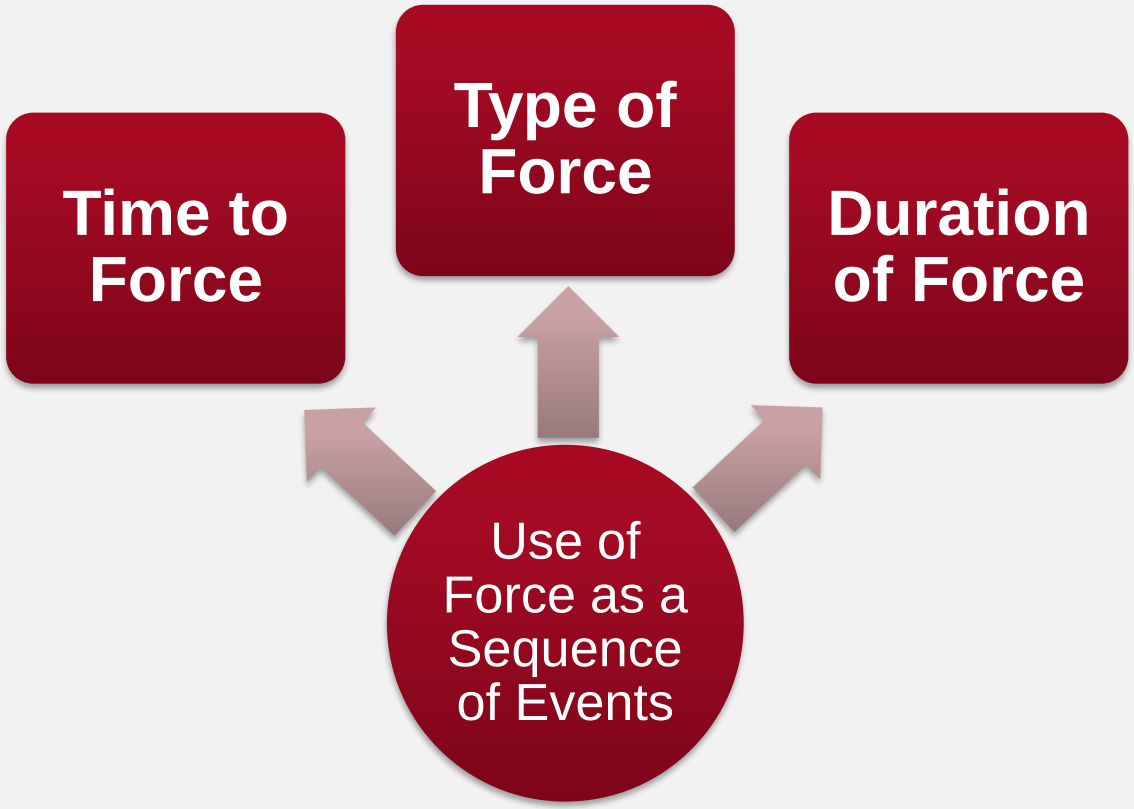
Body Worn Camera Perception Study Phase 1
The Johns Hopkins University Applied Physics Laboratory (JHU/APL)
CSI Lab

Understanding Officer Decision-Making and Interpersonal Communication Requires More than Examining the End Result





Study on Use of Force (Published)



Results of the Initial Analysis

1. When a suspect is actively resisting, police take significantly longer to use force.
2. Police were more likely to use force against males.
3. Police were not more likely to use force against African-American suspects.
4. Police take *less time* to use force against African-American suspects (and more time against white suspects)*

Follow-up Study on Use of Force (Under-Review)

Explaining the Results in Study #1

- Why were police faster in using force against African-American suspects?
- Were these interactions somehow different?

Understanding the Difference

- Are these interactions emotionally different?

Method

Collected a Sample of Criminal Contacts

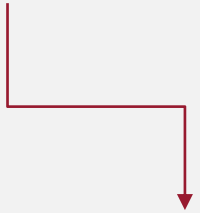
- 218 Criminal Code Violations with No Use of Force
- 70 Criminal Code Violations with Use of Force

Analysis: Coding of Incidents

- 69 Pre-Event Variables + 13 Use of Force Variables Collected per Force Event
- ***Objective Coding Structure***
  - Minutes/Seconds; Present/Not Present; Location
- ***Subjective Coding Structure***
  - Emotionality: Intensity and extent of a negative emotional state; Noise Level

Results

- Situations with high levels of intensity and situations with higher levels of aggression are more likely to result in use of force.
  - A 1-unit increase in the emotional state of the officer is associated with an over 1100% ($e^{2.564} = 12.988$) increase in the odds that force is used.



- This result is not particularly surprising, indeed, as it would be highly problematic if police used force often in calm interactions.

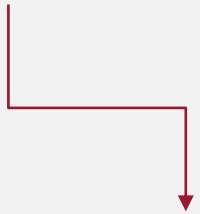
- Early results showed that police are significantly more likely to use force against African-American and Latino suspects and use force faster against them as well.
- However, once emotionality of the officer and suspect, situational intensity, and suspect behavior are accounted for, police are no more likely to use force against African-Americans or Latinos than White suspects.

Emotionally Intense (Stressful) Interactions Study

- Little is understood about the context of police-community interactions, and even less is known about how and when interactions become emotionally charged.

- Though it is generally agreed that policing is an emotionally demanding and stressful occupation, limited research has established what makes an interaction more or less emotionally charged.

- Higher stressful events are associated with greater odds of poor outcomes.



What are the individual and situational-level factors that affect suspect and officer negative emotional states during police-citizen interactions?

Description of the Study

- To approach this gap in the research, we examine police-community interactions at the incident-level by using BWC footage as a data source.

- BWC footage is the most suitable data source for examining the incident level and the dynamic and situational factors that affect emotional states, as footage provides a first-hand perspective of the situation as it occurs.

- This exploratory study seeks to answer the following research question:
  - What are the individual and situational-level factors that affect suspects' emotional states during police-citizen interactions?

Method and Analysis

Larger Sample

- Unredacted BWC footage recorded between June-October 2016
- Collected from a municipal police agency serving a university community
- 287 incidents total, all criminal code violations
  - 101 officer-initiated contacts
  - 186 dispatch-initiated contacts

- Statistical Method - Generalized Ordered Logit Models
  - Robust to violations of the assumption of parallel lines
  - Can be interpreted the same way as binary logistic regression

Outcomes

- **Negative Emotional States**

  0 = No negative emotional state

  1 = Low negative emotional state (calm throughout interaction with some negative emotional expression)

  2 = Medium negative emotional state (signs of agitation, distress, or sustained irritability)

  3 = High negative emotional state (wailing or rage; highly intense emotional displays)

- Collected for both officers and suspects

Predictors

Variable	Hypothesized Effect	Definition
Suspect Characteristics		
Male	+	1 = male, 0 = female
Nonwhite	+	1 = nonwhite, 0= white
Drug/Alcohol	+	1 = suspect appears under the influence, 0 = no signs
General Behaviors		
Interruptions	+	0 = No interruptions; 1 = 1-2 interruptions; 2 = 3 or more
Unique Officer Behaviors		
Statement of BWC Recording	+	1 = Officer statement of BWC recording, 0 = no statement
Procedural Justice	+	1 = Informed the suspect of the stop reason, 0 = did not inform
Proactive Stop	+	1 = Proactive stop, 0 = dispatch initiated
Environmental Factors		
Bystanders Present	+	1 = Bystanders present, 0 = no bystanders present
Bystander Interaction	+	1 = Bystanders interact with officer, 0 = no bystander interaction
Demographic and Population Shift	+	1 = Shift, 0 = No Shift
Shift Overlap	+	1 = Incident occurred during shift overlap; 0 = no shift overlap

Findings

Factors Increasing NES

Suspect Negative Emotional State
- Officer Negative Emotional State (10x)
- Officer Interruptions (2-5x)

Officer Negative Emotional State
- Suspect Negative Emotional State (12x)
- Suspect Interruptions (High Levels – 5x)
- Adversarial Tone (3x)
- Bystander Interactions (10x)
- Population Increases (3x)

Factors Decreasing NES

Suspect Negative Emotional State
- Suspect was Male (50% Decrease)

Officer Negative Emotional State
- Shift Overlap (54% Decrease)

Not significant: Race, Procedural Justice, Officer Initiated Contact, Bystanders Present

Limitations

Generalizability

- Data focuses on criminal code violations from one agency
- The officers in the sample are predominately male and white

More Controls Needed

- Duration of contact
  - Too much missing data to include in current models
- Where the incident took place
- Crime Type

Nature of Emotions

- Our data only captures observed, not felt, negative emotions
- We focus on negative emotional states when emotions are often pleotropic.

Police-citizen interactions are highly dynamic

- We code for overall outcome

Dynamic Modeling and expanded emotional annotating will address these limitations.

Discussion and Future Research

- Our Pilot Studies provides a baseline to establish how to examine police-citizen contacts by exploring negative emotional intensity and use of force.
  - Essential for evaluations on the success of de-escalation training and identifying best practices towards de-escalating a situation.

- Are there certain officer characteristics that lower or increase the odds of emotional escalation?
  - Training
  - Personality
  - Experience
- Cross-Validating Negative Emotionality via Biometrics (Pending Study) and Audio Analytics (current study)

Contact Information

David A. Makin, PhD (dmakin@wsu.edu)

Principal Investigator, Complex Social Interactions Lab

Assistant Professor, Department of Criminal Justice and Criminology

Research Faculty, Washington State Institute for Criminal Justice

Washington State University

| crmj.wsu.edu | wsicj.wsu.edu | Linkedin |Research Gate | Twitter **(@DavidMakinPhD)**