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

Complex Social Interactions Lab
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World Class. Face to Face.
Description of the Problem

• 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 (Toch, 2002), limited research has established what makes an interaction more or less emotionally charged.
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?
• Though there are varying ways of understanding emotion, we approach police-citizen interactions with the functional view:
  • Emotions as adaptive solutions for survival, both physical and social (Keltner & Gross, 1999)

• Research has shown that, when individuals are experiencing a negative emotional context, further negative emotional stimuli may increase the likelihood of an aversive reaction (fight or flight) (Lang, Bradley, & Cuthbert, 1990)

• Environmental context can also increase likelihood of aversive reaction:
  • Darkness (Grillon et al, 1990; Mühlberger et al, 2008)
  • Resource scarcity (Allen et al, 2016)
  • Presence of others (Zajonc, 1965; Palatania & Moran, 2001)
Methodology

Data
• 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
  • 186 dispatch-initiated

Coding Process
• Two-stage coding process to eliminate subjectivity
• Teams of two coders annotate videos individually
• Disagreeing codes are marked, and teams verify the marked codes together to reach consensus
Dependent Variables

• Emotional States
  0 = No visible emotional state
  1 = Low (calm throughout interaction with some emotional expression)
  2 = Medium (signs of agitation, distress, or sustained irritability)
  3 = High (wailing or rage; highly intense emotional displays)

• Due to low occurrence of high emotional states for officers, the analyses collapsed emotional states for 3 into level 2, producing a scale ranging from 0-2.
• Collected for both officers and suspects
## Independent Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hypothesized Effect</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Suspect Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>+</td>
<td>1 = male, 0 = female</td>
</tr>
<tr>
<td>Nonwhite</td>
<td>+</td>
<td>1 = nonwhite, 0 = white</td>
</tr>
<tr>
<td>Drug/Alcohol</td>
<td>+</td>
<td>1 = suspect appears under the influence, 0 = no signs</td>
</tr>
<tr>
<td><strong>General Behaviors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interruptions</td>
<td>+</td>
<td>0 = No interruptions; 1 = 1-2 interruptions; 2 = 3 or more</td>
</tr>
<tr>
<td><strong>Unique Officer Behaviors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statement of BWC Recording</td>
<td>+</td>
<td>1 = Officer statement of BWC recording, 0 = no statement</td>
</tr>
<tr>
<td>Procedural Justice</td>
<td>+</td>
<td>1 = Informed the suspect of the stop reason, 0 = did not inform</td>
</tr>
<tr>
<td>Controlled Conversation</td>
<td>+</td>
<td>1 = Officer did most of the speaking, 0 = officer did not</td>
</tr>
<tr>
<td>Proactive</td>
<td>+</td>
<td>1 = Proactive stop, 0 = dispatch initiated</td>
</tr>
<tr>
<td><strong>Environmental Factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bystanders Present</td>
<td>+</td>
<td>1 = Bystanders present, 0 = no bystanders present</td>
</tr>
<tr>
<td>Bystander Interaction</td>
<td>+</td>
<td>1 = Bystanders interact with officer, 0 = no bystander interaction</td>
</tr>
<tr>
<td>School</td>
<td>+</td>
<td>1 = School in-session, 0 = school not in session</td>
</tr>
<tr>
<td>Shift Overlap</td>
<td>+</td>
<td>1 = Incident occurred during shift overlap; 0 = no shift overlap</td>
</tr>
</tbody>
</table>
Analysis

• Generalized Ordered Logit Model
  • Robust to violations of the assumption of parallel lines
  • Can be interpreted the same way as binary logistic regression
Findings

Estimated Models

Factors increasing emotional states
- Suspects under the influence of drugs/alcohol
- Officer interruptions
- School in session

Factors decreasing emotional states
- Suspect was male
- Officer controlled the conversation

Complete Model

Factors increasing emotional states
- Officers’ low or medium emotional states
- Suspects under the influence of drugs/alcohol
- Officer statement of BWC recording
- Officer interruptions

Factors decreasing emotional states
- Suspect was male
- Officer controlled the conversation

Not significant: Nonwhite, procedural justice, proactive stop, bystanders, school in session
Limitations

Generalizability

- Data focuses on criminal code violations from one agency
- The officers in our sample are all 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, emotions

Police-citizen interactions are highly dynamic

- We code for overall outcome
Discussion and Future Research

• Our study provides a baseline to establish how to examine emotionality during police-suspect interactions
  • Essential for future examinations of the efficacy of police de-escalation trainings

• Are there certain officer characteristics that lower or increase the odds of suspect emotional escalation?
  • Training
  • Personality
  • Experience

• Future research can explore these questions by using BWC footage to observe interactions at the incident level.
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