

Introduction

- Community and officer safety are a priority for all law enforcement agencies
- Mistake-of-fact shootings occur when suspect intent and the object they possess is in question
- Experts are better than novices at detecting task-relevant information and ignoring task-irrelevant information

Method

- Show officers and recruits point-light displays of a suspect drawing an unknown object (i.e., gun or wallet)
- Ask participants to indicate if the object is a “weapon” or a “non-weapon”
- Analyze sensitivity and response time

Anticipated Results

- Officers will be more sensitive
- Recruits will be more likely to say the object is a weapon
- There will be an interaction between the speed and intent of the motion

Implications

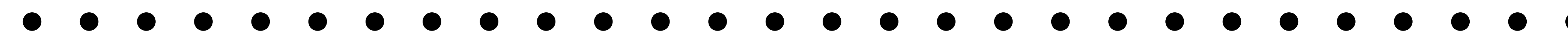
- Identifying a role of expertise in law enforcement will inform future research
- Empirical knowledge regarding factors that impact use-of-force decisions may be used to develop validated training
- Improved training will reduce the number of mistake-of-fact shootings and protect officers and the community

For more info, scan the QR Code with your phone



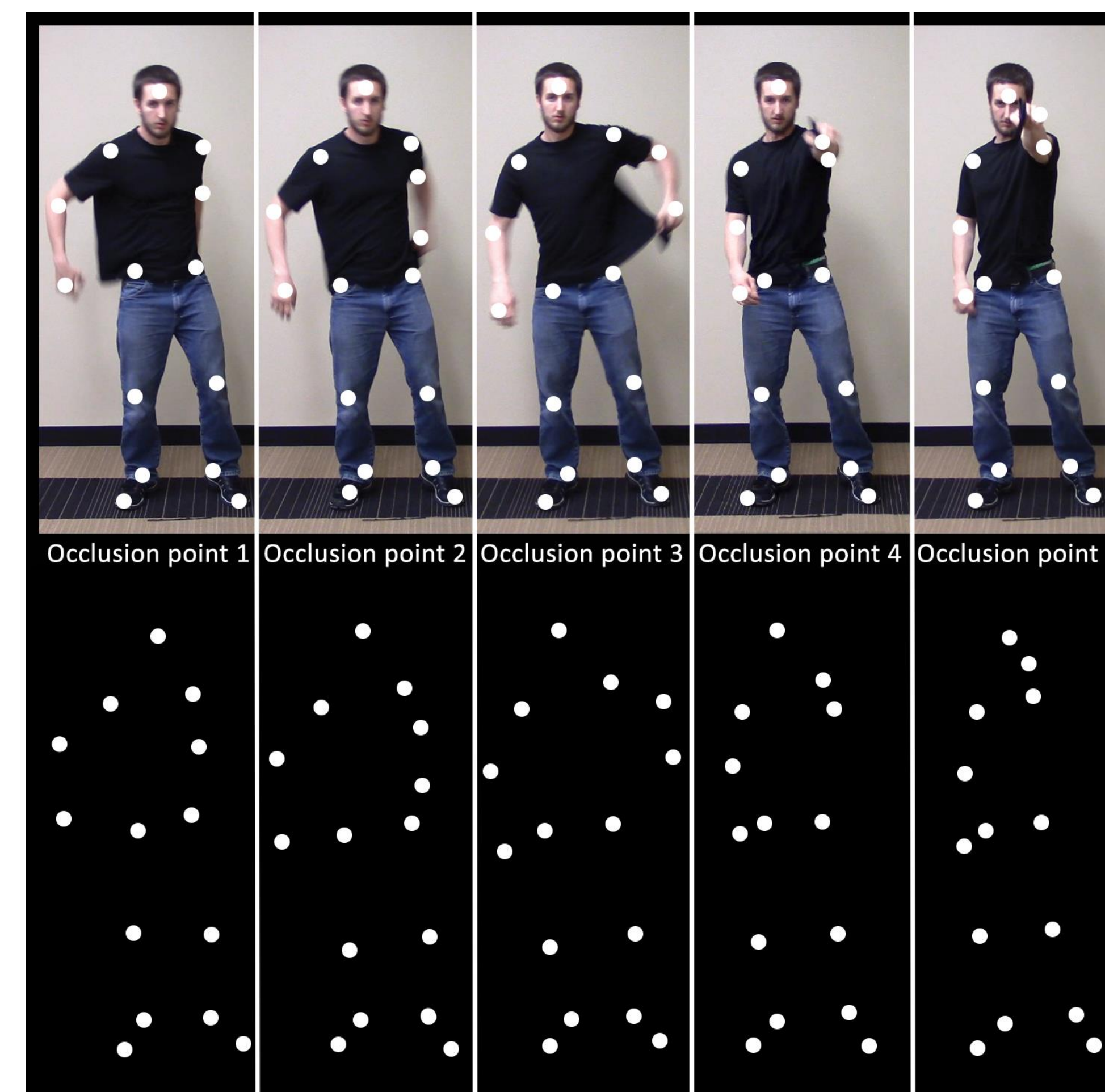
Using biological motion to investigate perceptual–cognitive expertise in law enforcement use-of-force decisions

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Questions

1. Can officers recognize the difference between a suspect holding a gun or a wallet?
2. Are experienced officers better at recognizing this difference than recruits?



Point-Light Display Stimuli Creation

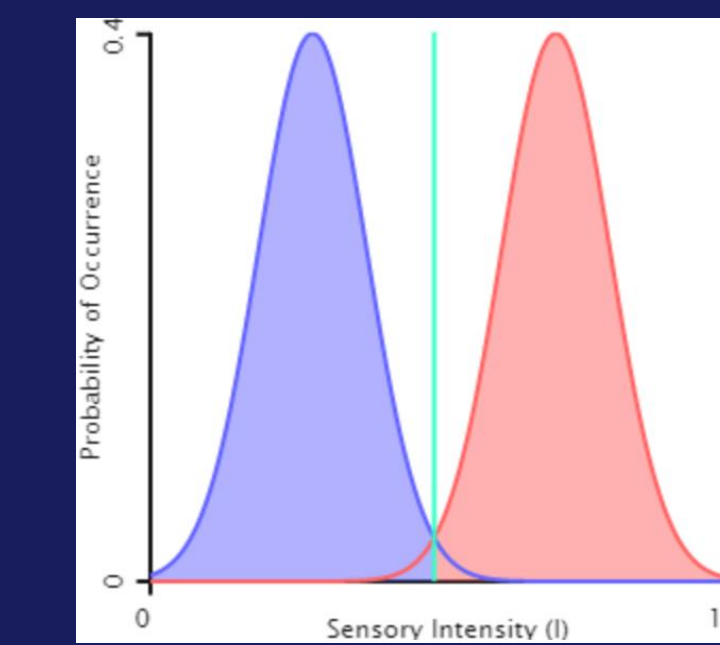
- Actors = use-of-force training officers
- Use a 16-camera motion capture system to record the actor’s biological motion

Experimental Conditions

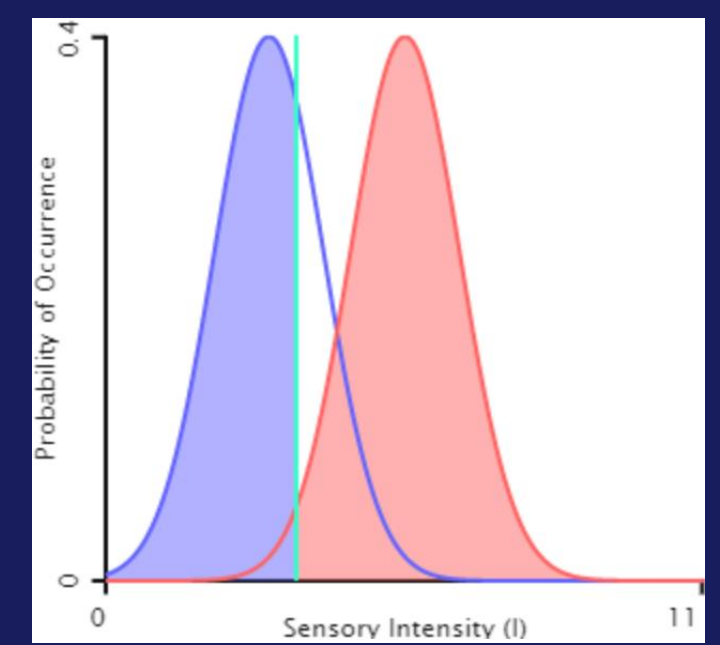
- Experience Levels: officer // recruit
- Draw Type: attack- // comply-type
- Draw Speed: consistent // manipulated
- Study 1
 - 2 (experience level) × 2 (draw type)
- Study 2
 - 2 (experience level) × 2 (draw type) × 2 (draw speed)

Anticipated Results

- Study 1: Are officers able to distinguish the motion of someone drawing a weapon from that of a person presenting a non-weapon?

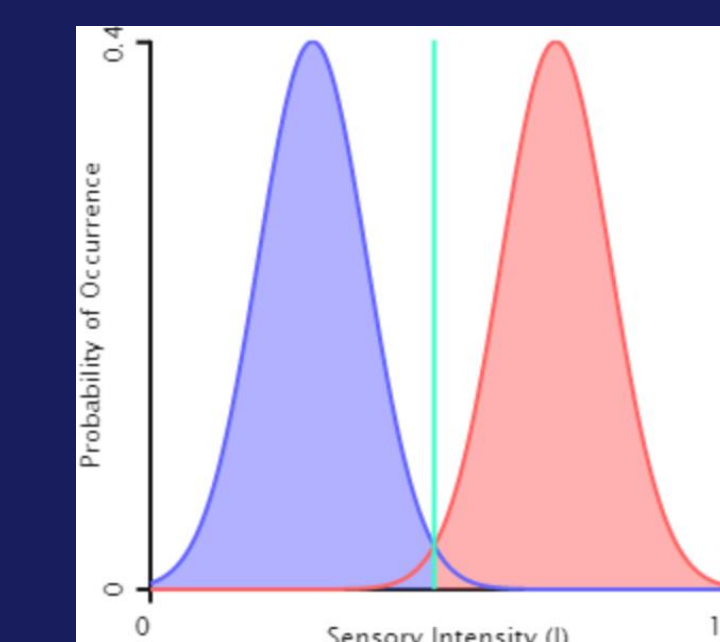


Experienced officers are expected to be more sensitive and have no response bias

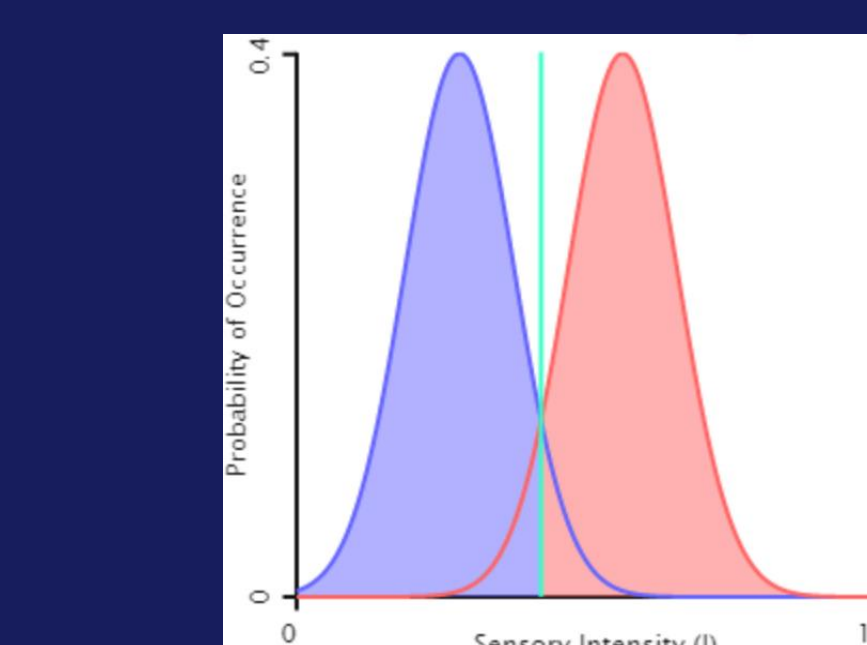
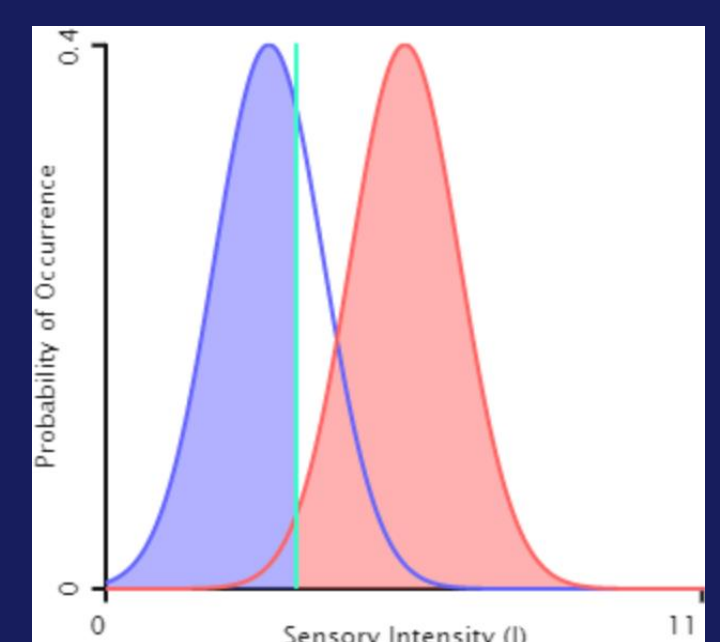


Recruits are expected to be less sensitive and have a more liberal response bias (respond “weapon”)

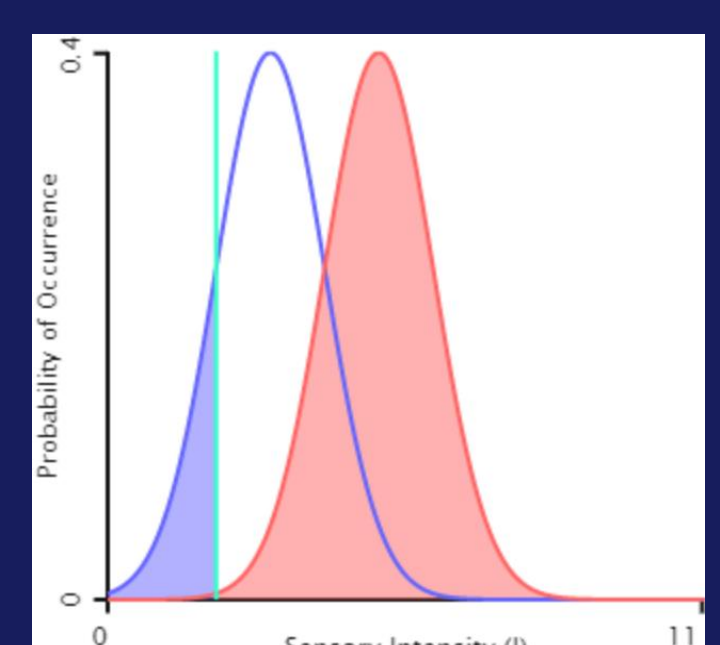
- Study 2: Are experienced officers able to distinguish this difference better than recruits



Motion type and speed consistent, same as Study 1



When motion type and speed are not consistent, experienced officers are expected to be less sensitive, but maintain no response bias



When motion type and speed are not consistent, recruits are expected to be less sensitive, but develop an extremely liberal response bias