Introduction; A General Background:

- **‘Violent Crime’**: Critical (physical wounds and death) and minor assaults (do not necessarily result in physical harm (Office for National Statistics, 2019)

- **‘Interpersonal Aggression’**: Non-consensual physical contact with the intention to cause harm (Vogels & O’Sullivan, 2019). This therefore excludes aggression such as play fighting, sporting incidences and others.

- Detection of emerging cues of interpersonal aggression are important for the police, encouraging constant vigilance, allowing them to defend themselves and the general public (Walker & Katz, 2008)

- Cues ranked as most concerning (for those who have experienced violence) based on written scenarios denoting a verbally hostile situation include: ‘taking a boxer’s stance’, ‘invading personal space’, ‘placing one’s hands in pockets’ (Johnson, 2015). Additional cues include; making a fist, verbally threatening, and looking around the area

Research Questions:

- How predictive are cues indicative of imminent interpersonal aggression when presented both singularly and in combination for naïve (non-police) individuals? How predictive are cues indicative of interpersonal aggression when presented both singularly and in combination for experienced (police) individuals? Are there differences in the predictive value of these cues (singularly or in combination) when comparing naïve and police individuals?

Method:

- **Participants**: Police (recruited through North Wales Police (NWP) & Naïve (recruited through university SONA system, social media, & word-of-mouth).

- **Materials**: Videos containing no interpersonal aggression - sourced from YouTube and law enforcement body camera footage. Videos containing interpersonal aggression (e.g. punch, kick). Violent and non-violent videos matched on characteristics (e.g. setting, time of day).

- **Dependent Variables**: Force Classification (violence will occur – yes / no) & Percentage Likelihood (how likely is violence – 0%, not at all, 100% certain)

Design: Multiple Regression Analyses – cue feature isolation and combination, age and expertise

Hypothesised Results:

- Cues indicated as most threatening in previous research (e.g. Johnson, 2015), such as ‘invading personal space’, and ‘taking a boxing stance’ will have greater predictive powers than other cues.

- The predictive powers of cues will differ when presented in isolation compared to in combination

- The predictive power of cues will differ depending on experience (police vs. naïve), where cues such as ‘placing hands in pockets’ will have greater predictive power for police

Data collection has not yet begun for the planned research, feedback is very welcome!

Planned Research:

Research Plan - The Predictive Power of Visual Cues to Interpersonal Threat Detection

Harry Piper & Dr Paloma MariBeffa (School of Psychology, Bangor University, UK)
EFS January 2021

Method:

1. **Participants**: N = 80
   - Mean Age = 33.36
   - Female = 42
   - Martial Artists (MA) = 21
   - Street Fighting (SF) = 30
   - Occupation (OP) = 18
   - Any Experience (AE) = 47

2. **Materials**: Violent and non-violent videos, segmented into 5x10seconds

3. **Cue Analysis**
   - Percentage Likelihood – how likely is violence – 0 (no chance) – 100 (certain)

4. **Participants**
   - N = 80
   - Mean Age = 33.36
   - Female = 42
   - Martial Artists (MA) = 21
   - Street Fighting (SF) = 30
   - Occupation (OP) = 18
   - Any Experience (AE) = 47

5. **Decision** (p) & Percentage Likelihood (how likely is violence)

6. **Result**
   - Significant correlation of OP years of experience and classification
   - Significant correlation of OP years of experience and classification

7. **Contact Details & References**
   - E-Mail: h.piper@bangor.ac.uk
   - Twitter: @HarryPiper2020
   - Websites:
     - (i) https://piperhmr20.wixsite.com/harrypiper
     - (ii) https://www.executive-functions-lab.com/