**Design**

This experiment used a 1 (Sussex students) x 2 (aggressive vs nonaggressive crowd noise) between subjects design.

**Participants**

A total of 60 undergraduate students from the University of Sussex participated in this research. Subjects were recruited and approached through various Facebook pages used by Sussex University students, as well as in person on Sussex University campus. Subjects were randomly allocated to each condition using a random number generator. Participants were not paid for their time although they were offered chocolate and entered into a £25 prize draw as an incentive to participate.

**Measures**

Implicit Aggression

Each participant's implicit aggression scores were recorded using an Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998) on Inquisit Millisecond software. The IAT is a well-established test designed used to assess participant’s automatic attitudes/cognitions (De Houwer, 2006). The IAT is a computerised sorting task, which indirectly measures the strength of associations between two contradictory and often conflicting categories.  In this experiment the target categories were ‘me’ versus ‘other’ and the two attribute categories were ‘peaceful’ versus ‘aggressive’. Participants are first randomly exposed to self-related words (e.g. I, me) or words related to others (e.g. them, others). Next they are introduced to stimulus items referring to either aggressive (e.g. attack, hostile) or peaceful behaviour (e.g. kind, gentle). Participants are then asked to categorise these words into one of the four superordinate categories, using the ‘E’ and ‘I’ keys (Appendix F). By comparing the speed of categorising members of the superordinate categories (me/them) into the two different sorting conditions (aggressive/peaceful), association strengths can be measured. Therefore, it is assumed that the stronger an association, the quicker participant’s reactions times will be, since classification should be simpler. The IAT then calculates the difference in average response times between the classification tasks (Richetin & Richardson, 2008) e.g. self–aggressive and others–aggressive versus self–peaceful and others–peaceful. Participant scores will range between -2 and +2, where a positive score indicates a peaceful self-concept and a negative score indicates an aggressive self-concept (Greenwald & Farnham, 2000). The link to access this measure is as follows:

Explicit Aggression

This section of the questionnaire was presented as a ‘cognitive style test’ to reduce social desirability biases.  Participants’ explicit aggression scores were measured using ‘The State, Scenario Aggression Measure’ (SSAM; Farrar & Krcmar, 2006), which is an adapted version of the well-established Aggression Questionnaire (Buss & Perry, 1992) used to measured trait aggression. The SSAM aims to test state (versus trait) measures to try and predict intended behaviour, allowing greater ecological validity. Participants were given an aggressive scenario to picture themselves in and their responses were measured using 11 items from the SSAM scale (see Table 1, below). The scenario was adapted from the original paper to a situation to become relevant to both identity levels.

Self-relevance

One item was used to measure participant’s self-relevance to the identity of the noise. This was “The people in the soundtrack were relevant to me”.

Questionnaire

The self-report questionnaire was created using Bristol Online Surveys. The questions used a 7-point Likert scale on all items; ranging from 1 (strongly disagree) to 7 (strongly agree).

Procedure

Participants were randomly allocated to one of two conditions (aggressive crowd noise vs non-aggressive crowd noise) using a random number generator programme. Participants were presented with a consent form and information sheet to read and sign and were told that they were being invited to take part in a study investigating differences in ‘Perception and detection of crowd noise (detection and recall) in relation to cognitive style’.

After reading an information and consent sheet, participants were instructed to put on headphones and listen to the soundtrack. They were notified that the sound would be relatively loud for experimental purposes but were given full control to remove headphones at any point if they felt uncomfortable.  Furthermore, they were instructed to close their eyes to prevent distraction. At the end of the sound clip participants then completed a questionnaire designed to assess the level of explicit and implicit aggression the sound clips provoked.

**Results**

HEADLINES: In the aggressive noise condition, self-relevance of the crowd source significantly predicted explicit aggression (controlling for gender). Note that English was not the first language for the majority of participants (particularly important for implicit aggression)*.* Explicit and implicit aggression do not correlate with each other.

*Design*

* 1x2: Sussex students listened to an unidentified aggressive/non-aggressive crowd noise.
* N=52, following removal of 8 participants (various reasons including using a phone during the study, hesitating during the IAT etc.)

*Main effects of condition*

* Significant main effect of condition (non/aggressive audio) on perceived aggressiveness of crowd noise.
* No significant differences for self-relevance (which is interesting given when happened in Aggression 4 – see below), explicit aggression of implicit aggression.
* Explicit and implicit aggression not correlated with each other (using whole sample, or splitting into condition).

*Self-relevance as predictor of aggression*

* In the aggressive noise condition, self-relevance of the crowd source significantly predicted explicit aggression (controlling for gender). (Non-sig in neural noise condition).
* Not replicated for implicit aggression.

*Indirect effects*

* Unlike in Aggression 4, self-relevance did not moderate the relationship between perceived aggressiveness of crowd noise and explicit aggression.
* Perceived aggression significantly mediated the relationship between condition and explicit condition.
* Not replicated for implicit aggression.

De Houwer, J. (2006). What are implicit measures and why are we using them. The handbook of implicit cognition and addiction, 11-28.

Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. (1998). Measuring individual differences in implicit cognition: the implicit association test. Journal of personality and social psychology, 74(6), 1464.

Greenwald, A. G., & Farnham, S. D. (2000). Using the implicit association test to measure self-esteem and self-concept. Journal of personality and social psychology, 79(6), 1022.

Farrar, K., & Krcmar, M. (2006). Measuring state and trait aggression: A short, cautionary tale. Media Psychology, 8(2), 127-138.

Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. Personality and social psychology bulletin, 18(3), 302-318.

Richetin, J., & Richardson, D. S. (2008). Automatic processes and individual differences in aggressive behavior. Aggression and Violent Behavior, 13(6), 423-430.