Aggression
November 18th, 2009 : Lecture 20

Midterm 2
(Original) Marks Posted on Friday, 11/13
Marks updated on Monday, 11/16
Important dates:
  Can contest your mark through 11/20 at 11:59 pm
  Can contest a question through 11/19 at 11:59 pm
  Can drop the course no later than TODAY!!!

Lecture Overview
Midterm 2
Aggression
Approaches to Aggression
Television & Violence

Midterm 2 : Distribution
Mean = 68.99
Standard Deviation = 11.93
Midterm 2: Refunded Questions

2 Questions didn’t have high discriminability:
V1 Q7: James-Lange Theory
V1 Q26: Cannabis question

1 Question was successfully argued back:
V1 Q11: Rejection Sensitivity and Attachment Style
Both avoidant styles are now considered correct

Aggression

Types of Aggression

Type of Pain

*Intentional behaviour aimed at causing physical or psychological pain*

Two dimensions of classification:
Type of pain
Goal of pain

Physical Aggression
*Aggression inflicting physical pain*

Verbal or Relational Aggression
*Saying or doing psychologically hurtful things*
Goal of Aggression

We make a distinction between *hostile* and *instrumental* aggression

What is the **goal** of the aggression?

Instrumental Aggression

Aggressive behaviour that:
*Inflicts pain*
*The pain is a middle step toward another goal*

Hostile Aggression

Aggressive behaviour that:
*Stems from feelings of anger*
*Has the goal of inflicting pain*

Big Picture Questions

1. Is aggression:
   A. A positive thing
   B. A negative thing
   C. It depends
Big Picture Questions

2. Is aggression:
   A. Societally produced
   B. A natural thing
   C. An interaction of the two

Big Picture Questions

3. When is aggression justified and when isn’t it?

Approaches to Aggression

Think about a time when you hurt someone else
   Don’t have to tell anyone about it
   Why did you do it?

Why We Hurt: Typical Answers

“I was born that way”
   Genetic Predisposition

“The booze made me do it”
   Chemical Influence

“I was having a bad day”
   Frustration-Aggression Theory

“Too much violence in the media”
   Social Learning Theory
Genetic Predisposition

Theory and early work

Neural Structure:
- Amygdala
- Pre Frontal Cortex

Hormones and Neurotransmitters:
- Testosterone
- Serotonin

Genetic Predisposition?

Basic Theoretical Premise:
Aggression is adaptive and has survival value

Earliest evidence:
Animals can be bred for aggression (e.g., Rottweilers)
Twin studies find high heritability for aggression

Amygdala

Stimulating amygdala can lead to aggression
Depends on context:
- Sometimes leads to withdrawal/fear
- Relative social status matters

Pre Frontal Cortex

PFC may be the regulator of aggressive impulses
- Generally involved in planning & behavioural regulation
- Relation of PFC and Aggression:
  - Murderers have less PFC activity than normal controls
  - PFC becomes activated when contemplating an aggressive act
Testosterone

*The steroid hormone testosterone may increase aggression*

Greater exposure to testosterone in womb linked to aggression

**But:**

- Injecting testosterone does not increase aggression
- Testosterone-aggression is weak effect, $r = .14$

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Serotonin

Neurotransmitter related to many aspects of experience

May inhibit aggressive impulses

- Violent criminals have less serotonin than normals
- Serotonin antagonists (blockers) increase aggression

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Chemical Influence: Alcohol

*Alcohol disinhibits behaviour in general*

- Reduced self-consciousness ➔ deindividuation
- Reduced attention to consequences of actions

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Chemical Influence: Alcohol

Relationship between alcohol and aggression:

- In 65% of homicides and 55% of domestic violence, assailant and/or victim had been drinking
- In lab studies comparing alcohol with placebo:
  - People give stronger shocks
  - Report more anger when thinking about conflict with romantic partner
Frustration-Aggression Hypothesis

Aggression stems from frustration

Frustration

The perception that you have been prevented from attaining a goal

Factors Affecting Frustration and Aggression

More aggression when:

- You are close to the goal
- Frustration is unexpected, intentional, or unjustified
- Can’t retaliate against cause of frustration

Critiques of Frustration-Aggression Hypothesis

Not all aggression is the result of frustration

- Environmental factors
- Neo-associationism

Not all frustration leads to aggression

(Wait for Stress & Health Lecture 22)

Environment and Aggression

Pain

- Rats attack each other after being shocked
- Participants blast each other with louder noise after hand submerged in ice water versus room temperature water

Heat

- Heat above 32°C invokes aggression
Neo-Associationism

Aversive events:

*Cause anger*

*Concepts associated with anger become accessible*

*Anger-related concepts already in working memory especially facilitated*

**Aggressive stimuli** trigger aggressive behaviour

*Object associated with aggression*

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**Aggressive Stimuli: The Gun Study** (Berkowitz & Le Page, 1967)

Method:
1. Participant (P) works with Confederate (C) on problem solving task involving shocks
2. Anger manipulated by shocks from C (↓ Anger = 1 shock, ↑ Anger = 7)
3. Next, P can shock C
4. Beside the shock machine was either:
   - Nothing
   - Gun
   - Badminton racket

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**Social Learning Theory**

Vicarious Learning

Bandura’s Bobo Doll Experiment
Vicarious Learning

Learning solely through observation of other people’s reinforced and punished behaviour

No direct reinforcement or punishment

Aka “Social Modelling”

Social Modelling of Aggression

We learn aggression from observing others and imitating them

Adoption of modelled behaviours are dependent on rewards and punishments observed

Social Modelling : Bobo Doll Experiment

Bandura (1965)

Method:

1. Kids watch video tape of young adult behaving aggressively or neutrally toward a “Bobo Doll”

2. Model's Consequences:
   Rewarded, Punished, or Not

3. Kid's Incentive: Incentive or No Incentive

Bobo Doll Experiment

Modelling Aggressive Behaviour
Bobo Doll Experiment
Learned Aggressive Behaviour

Bobo Doll Experiment

Implications …

Family influence
Physically aggressive children more likely to have physically punitive parents
30% of physically abused kids abuse their own kids

Media influence
High publicized suicides → increased suicides

Television and Aggression

By 7th grade, average child has seen:
8,000 murders
100,000 other acts of violence

More television predicts aggressiveness
Important caveat: Mostly correlational studies!
TV and Aggression Over Time

Eron & Huesmann (1986)

Method:
1. Recruited 200 8-yr old boys from New York, NY, US
2. Measured general aggressiveness at age 8
3. Documented how much violent TV they watched

Results:
Violent TV watching at age 8 predicted:
- Aggression at age 19
- Criminal acts of violence (rape, robberies, assault) at age 30
  Controlled for aggression at age 8

Moderating Factors in TV-Aggression Link

Model Similarity
Punishment versus Reward
Apparent Reality
- *Cartoons influence aggression less than film*
Apparent consequences
  - *Modelling more likely when pain/harm caused by violence is not depicted*

How Does TV Affect Aggression?

Imparts information about how to aggress
Primes anger
Makes world seem more dangerous, increases fear of victimization (Gerbner et al., 1994)
Heavy viewers tend to overestimate frequency of violent crime, probability of being assaulted
Loosens inhibitions toward violence
“An angry person can pull the trigger of his gun if he wants to commit violence, but the trigger can also pull the finger …”

- Leonard Berkowitz

Next Lecture (11/20):
Prosocial Behaviour

Related Websites:

Well-done article on Bonobos and Aggression:

APA's Statement and Recommendations on Violence:
http://www.apa.org/about/division/cpmpubint5.html#33

Full video of Bandura's Bobo Doll Experiment:
http://www.youtube.com/watch?v=vdh7Mngntnl