Aggression: Problems with Definitions

Any act which harms? Any intent to harm? Verbal violence? Failure to reward? Withholding reward or affection? Withholding treatment? Biting kicking punching? Using handheld weapons to harm? Using nuclear weapons at long range? Aggression in the Milgram study? Disparaging comments? Gang violence against ethnic minorities? The Nazi 'final solution? Ethnic cleansing? And so on.
The range of actions which could be interpreted as aggression is large and some definitional system is needed. What confuses matters further is that many definitions of aggressive behaviour come trailing a pre-existing theory. The pre-history of aggression theory inhabits definitions.

Freud: Eros and Thanatos. The displacement of aggression. The beginnings of a *hydraulic model* of motivation.
Aggressive forces build up like water in a dam and these forces have to be released. They spill over into aggressive behaviour. The role of external causes in thus downplayed relative to periodic build ups in the aggression fluid (libido). The release can often be achieved by a substitute target. Release produces catharsis or 'blowing off steam'. (the original concept arising in the ancient Greek tragic theatre).

Freud's definition of Thanatos.

'to reduce life to its original condition of inanimate matter'. Dammed up forces must:

(a) find behavioural expression and a target, i.e. result in aggression
(b) find a substitute target (catharsis)
(c) find sublimation in more productive outlets. (The redirection of libido to approved societal ends).

Konrad Lorenz and instinctual aggression

Lorenz examined herring gulls and other territorial birds. They defend their territory(their food & breeding source) by aggression using *fixed action patterns, elicited by sign stimuli*. The build up of internal forces did not seem to play a role in the theory. Aggression is an instinct, serving territoriality, elicited by biologically relevant signs, is automatic, and difficult to inhibit out with certain biologically based sign inhibitors. For example male stickleback's have aggression elicited by the red scales & fins. Aggression in wolves is inhibited by appeasement gestures. Biologically fixed aggressive behaviours are specific to threat from a conspecific (competition for mates), or to defensive manoeuvres in the face of a predator.(defensive aggression).

A modern instinct theory of aggression.

Socio- biology is a recent version of instinct theory. it can be applied to aggression. However it escapes the

drawbacks of earlier aggression/instinct theories.

An early version was Freud's 'Thanatos' or 'Death' instinct sugested to counteract 'Eros'
Also Lorenz : fixed action patterns, innate releasing mechanisms, sign stimuli (e.g. a robin's red breast as an aggression cue to male robins).

Lorenz and Freud both accepted a **hydraulic** model of instinct viz. a build up of instinctive pressure seeking release and triggered by lesser and lesser cues.

Sociobiology is **not a hydraulic model**, specifying the internal build-up of aggressive instinctual forces.

It does not rely on **fixed action patterns**. It expects aggressive responses to show an element of learning. Also socialisation can inhibit basic aggressive responses.

Thus it accepts cultural and economic factors: witness the change in aggressive behaviour amongst the native American Iroquois after the white settlement.(Hornsterin 1976). There is also the case of the 'fierce people' the Yanomamo.

However it does adhere to basic evolutionary principles. Aggression is **partly controlled by inherited mechanisms. It has played a role in our inclusive fitness.** That is, it had at some stage in our evolution adaptive fitness.

Biological situations which are related to an inherited aggressive response. In the context of animal behaviour this is incontestable. Animals show species specific aggression linked to **biologically important** situations. (Buss an Shackelford 1997)
For example predatory aggression,

defensive aggression,

inter-male competition aggression,

maternal defensive aggression,

and possibly irritable aggression.

The actual behavioural sequences involved in each are different and triggered by the demands of the situation. Is the problem how to fight a competitor male or to defend against a predator or to kill prey? Thus stags use their antlers for inter-male competition and their hooves for defensive aggression (to some degree).

In humans :

In homo sapiens to some extent to the jury is still out to. Socio- biology argues that **inter-male competition** is one (but only one) majors factor in aggressive behaviour in

humans.

Young men in particular fight for respect, resources and ultimately to be chosen by women. They pursue these goals with displays of boasting, bragging, showing off and attempts to humiliate competitor males.

These displays can spill over into face-to-face aggression. In all societies where murder is documented 80% of homicides are committed by males. Most of these are committed by young men , where an acquaintance is the victim, and where the incident has been precipitated by an attempt to humiliate, or by being the target of a perceived humiliation (disrespect, 'dissing',....

'are you talking to me, cos I'm the only one here' (Travis Bickel in taxi Driver)).(Daly & Wilson).
Actual violence levels though can depend **on availability of weapons, and levels of social control.**

Question: what is the role of guns in violence rates?

Neural and biochemical factors

Violence involves the **amygdala** influenced by inhibitory control circuits from the prefrontal cortex. Serotonin operates as a neural modulator and seems influential in allowing the **frontal cortex** to regulate the limbic system.

Amygdala stimulation by implanted electrodes causes aggression but so does PFC Damage as in the case of Phineas gage who damaged his PFC in a rail accident.

Aggressive impulsive behaviour is associated with **alcoho**l use probably because of its effects on frontal cortex control.(Ito et al 1996).

Testosterone levels per se do not cause violence. However men in competition develop higher testosterone and become more competitive. It becomes high among prisoners and street youth. Crime and impulsive behaviours decline with testosterone levels (Dabbs et al 1990,1998).

Serotonin levels are low in impulsive violence and this can be a trait measure. (Bernhardt 1997).

Categories of violence and aggression.

Social Psychologists now define aggression as **intent to do harm or injury to another person, to make them suffer or experienced deprivation.**

This definition covers physical and verbal aggression and radius indirect methods and such as was holding awards, giving electric shocks in experiment. It is argued in though that different factors may control the different to

aggressive forms.

Hostile aggression, instrumental aggression, and group violence:

Hostile aggression is aggressive behaviour driven by arousal, impulsivity, and immediate to situational provocation. It may be closer to the kinds of aggression identified by instinct theories. It includes irritable aggression.

Instrumental aggression
is a learned response where aggression is a mechanism for achieving certain goals.
In this mode aggression is just another way of getting what you want or avoiding being criticised by authority (obedience based aggression as in the Milgram study), or gaining normal awards.

Group violence is violence organised in a group and directed against a solitary victim or another group.