

Canine Aggression
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Magnitude of the problem

- 4.5 million dog bites occur annually according to emergency departments for non-fatal dog-bite-related injuries.
- 30-50 people die annually from dog bites
- 55 % of owners report that their dogs are aggressive

Results of mini-dachshund bite



Result of Dog Bite



www.thelancet.com/infect
Vol 9 July 2009

Clinical Problem of Aggression

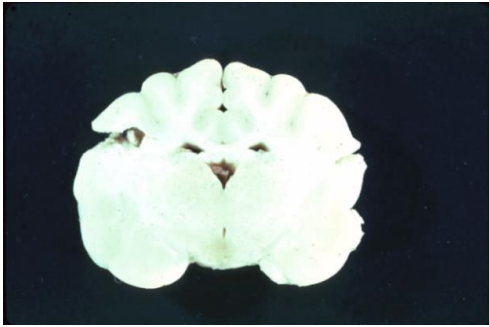
- Not the same as public health problem

Medical Causes of Aggression

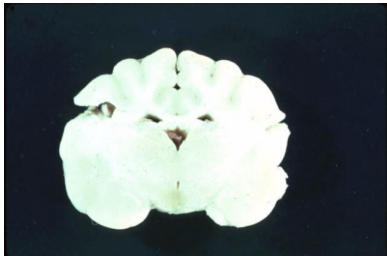


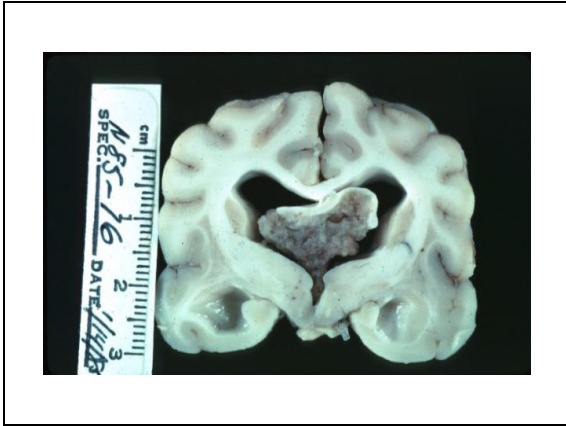
Hydrocephalus





Ventromedial hypothalamic Lesion



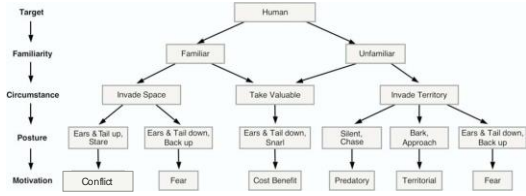


Pain!

Canine Aggression

- By Victim
 - Stranger
 - Owner
 - Children
 - Babies

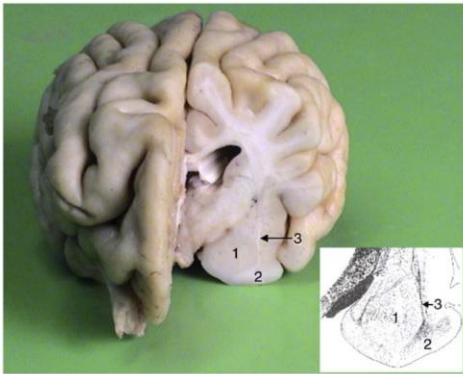
How to classify aggression



What kind of aggression?



Amygdala fear area



Canine Aggression

- To Strangers
 - Territorial- only on property
 - Fear- observe body posture
 - “Protective”
 - Really owner protects dog or dog guards resource
 - Predatory
 - Dominance

Aggression to Stranger off dog's territory



Tethering can increase Territorial Aggression



Canine Aggression

- Role of learning
 - Territorial
 - Fear based

Treatment of Canine Aggression

- Protect Victim
- Liability
 - Yours
 - Owners'
- Reduce Aggression



Treatment of Canine Aggression

- Protect Victim
 - Muzzle





Treatment of Canine Aggression

- Protect Victim
 - Muzzle
 - Head halters



Treatment of Canine Aggression

- Protect Victim
 - Muzzle
 - Head halters & harnesses



Treatment of Canine Aggression

- Protect Victim
 - Muzzle
 - Head halters & harnesses
 - Leashes

YES



NO



Treatment of Canine Aggression

- Protect Victim
 - Muzzle
 - Head halters
 - Leashes
 - Confinement



Treatment of Canine Aggression

- Protect Victim
- Liability
 - Yours
 - Owners'
- Reduce Aggression
 - Behavior modification
 - Psychoactive medication

Desensitization to Running



Treatment of Canine Aggression

- Territorial Aggression (cont' d)
 - Don't allow dog to run free in yard
 - Especially if unfenced or invisible fence
 - Control with head halter
 - Reprimand barking with citronella collar

Aggression to Visitors

- Treatment
 - Muzzle
 - Con fine



Aggression to Visitors

- Treatment
 - Muzzle
 - Con fine



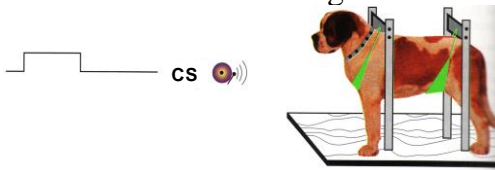




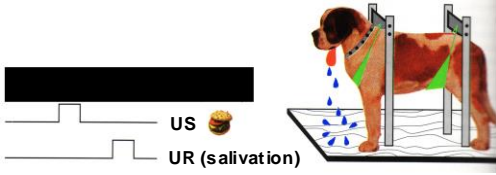
Treatment of Canine Aggression

- Territorial Aggression
 - Pair food with stimulus that elicits aggression
 - eg door bell
 - for country dogs use driveway alarm
 - Pair food with sit-stay (or any controlled behavior)
 - Pair food with sit response to stimulus that formerly elicited aggression

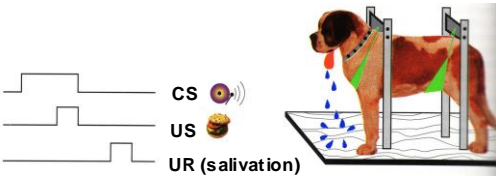
Classical or Pavlovian Conditioning



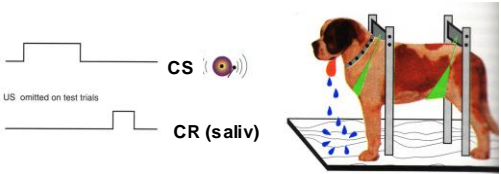
Pavlovian Conditioning



Pavlovian Conditioning



Pavlovian Conditioning



Behavior Modification
Classical Conditioning



Treating Aggression to Visitors
Control at Door

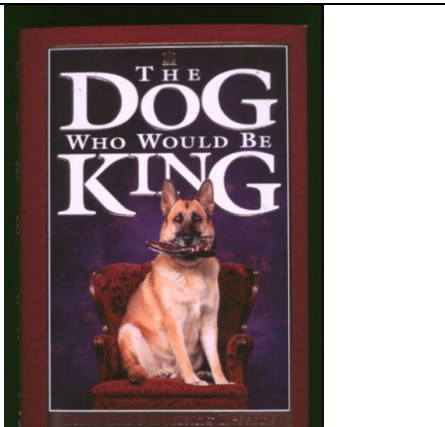


Pair food with stimulus that dog
has learned predicts visitors

- Doorbell
- Knock
- Drive way alarm
- Owner opening door

Meanwhile have guests text you rather than knock



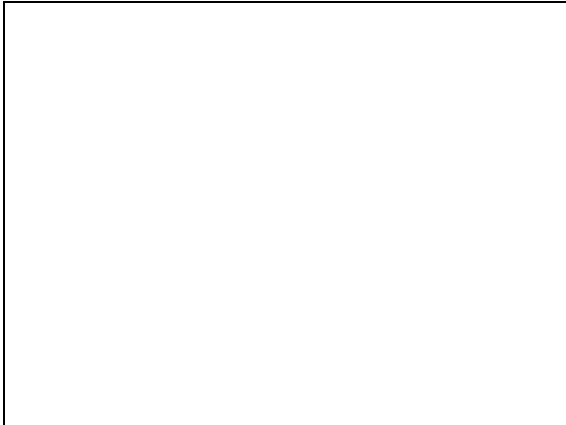


Canine Aggression

- To owner
 - Dominance- Conflict- Competitive
 - Scarce resource such as personal space, mate
 - Possessive-really part of dominance
 - Food and toys
 - Fear
 - Associated with punishment or pain

Resource guarding – common cause of aggression to owner





dog owning experience, the owner's age, socioeconomic status, and owner personality are risk factors for human-directed dog aggression.

Risk of Dog Bite

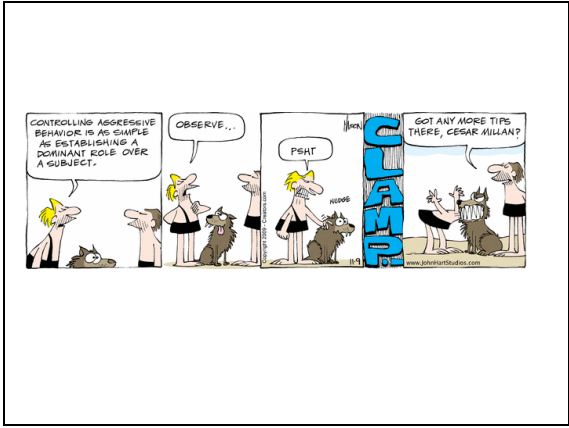
- Poor people get bitten; more bites in high crime neighborhoods
- Agreeable, conscientious, and open-minded people have dogs that do not bite
- Less experienced owners are more likely to have dogs that bite
- Younger owners are more likely to have aggressive dogs

Dominant dog leans over subordinate who avoids eye contact



We don't use dominant anymore

- Dogs probably don't view us as pack mates
- Punitive (shock collar or Cesar Milan) trainers use term





Note ears tail and gaze

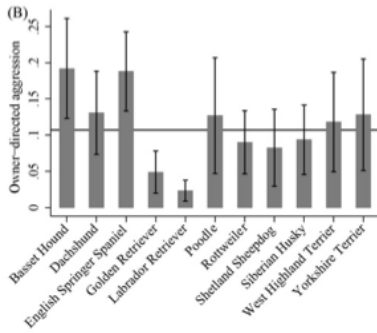


Note ears tail and gaze

Behavioral Psychopharmacology

Pills for the Perfect Pet





RHYMES WITH ORANGE BY HILARY B. PRICE & RINA PICCOLO

THE SESSION

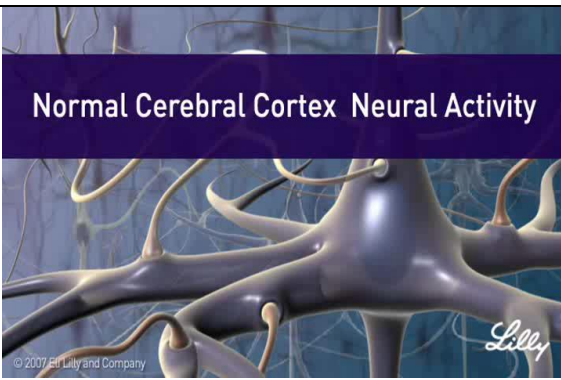


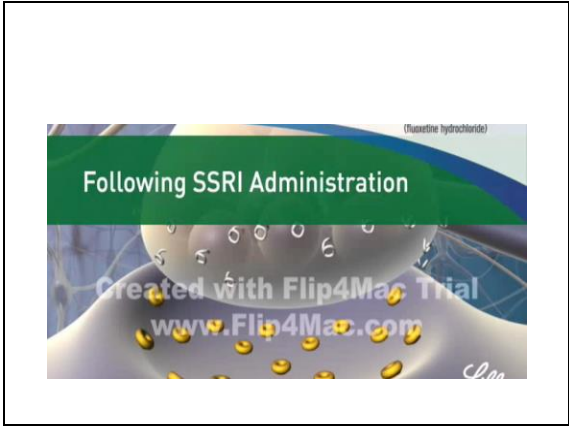
Breed most likely to Bite Owner





Normal Cerebral Cortex Neural Activity





Reconcile®



- FDA approved for Separation Anxiety in dogs
- Fluoxetine
- Manufacturer - Elanco

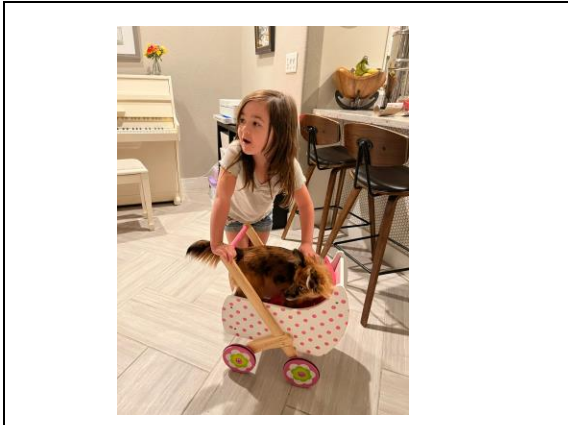
Study of 93 dogs treated with fluoxetine

- 60 % improved
- 9% worse
- 32 % no change

Canine Aggression

- To children- the ultimate agitators
 - Conflict if family dog
 - Fear if strange dog







Testing for Aggression toward Children





Temperament test



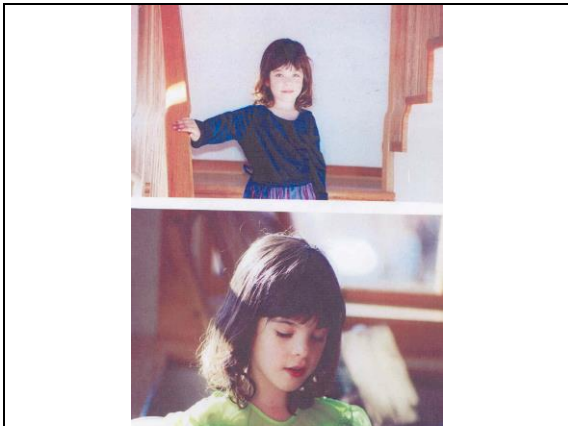


Canine Aggression

- Babies
 - Predatory
 - Neonates

- Toddlers
 - Dominance
 - Looks dog in eye
 - Steals toys



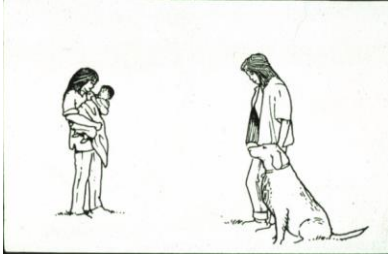








Introducing Dog to Baby



Introduction of Dog to Baby



Not a Good Idea



Not a good idea



Note the dog's ears



Treatment of Canine Aggression

- Protect Victim cont' d
 - Avoid circumstances that provoke aggression

 - Avoid punishment
 - Physical punishment
 - Verbal punishment

Euthanasia

- The only way to guarantee that dog won't bite

Euthanasia

- When do owners choose it
 - Large Dog
 - Multiple Bites
 - Unpredictable aggression
 - Children or infirm family members

Treatment of Aggression

- General treatments
 - Diet
 - Low protein (<20%)
 - Feed meals before humans eat
 - Exercise
 - Walk more
 - Play fetch
 - Avoid tug-of-war

Treatment of Aggression

- General treatment (cont' d)
 - Teach to relax
 - Obedience with a soft voice and food rewards
 - Massage
 - Nothing in life is free
 - Dog must obey command before petting walk food etc



Treatment of Aggression

- Pharmacological
 - Serotonin modifying
 - Tricyclic antidepressants
 - Clomipramine Don't use See label
 - Amitriptyline
 - Specific Serotonin Reuptake blockers (SSRIs)
 - Fluoxetine
 - Paroxetine

Pharmacological treatment (cont' d)

- Serotonin modifying drugs (cont' d)
 - Agonist
 - Buspirone
- GABA modifying drugs
 - Diazepam
 - Phenobarbital

Pharmacological treatment (cont' d)

- Progestins
 - Side effects
- Acepromazine
 - Disinhibition of aggression
 - Sedation
 - Beta adrenergic blockers
 - Propranolol
 - Inhibits cardioacceleration

Treatment of Aggression

- Aggression Reduction protocol
 - Nothing in life is free No free lunch No Free petting
 - Dog must work (sit down look etc) for attention food walk etc

Treatment of Aggression

- Management
 - Keep off furniture
 - Avoid alpha dog roll-overs
 - Walk away from confrontations

Treatment of Aggression

- Fear based Aggression
 - Desensitize
 - Avoid
 - Pharmacological

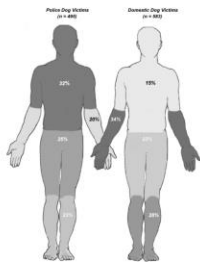
Aggression by caged Dog



Police Dogs-One of the few cases where dogs should bite people



Where do Police Dogs bite?





Aggression to Moving Targets: Predatory



Treatment - Restrain

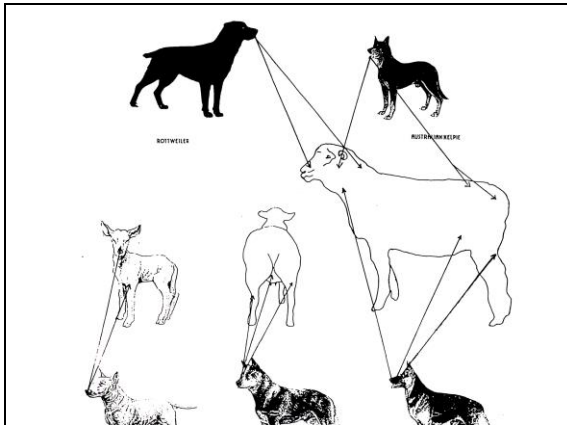


Predatory Aggressor



Predatory Aggression: the Victim





Treatment of Predatory Aggression

- Restrain Dog

Aggression between Dogs

- Strange dogs
 - Only other males
 - Only small dogs
 - All dogs
 - Unpredictable
- Dogs in same Household
 - Usually same sex

Aggression between Dogs

- Strange dog
 - Territorial
 - Predatory
 - Dominance
 - Sexual
- Household dog
 - Dominance
 - Territorial

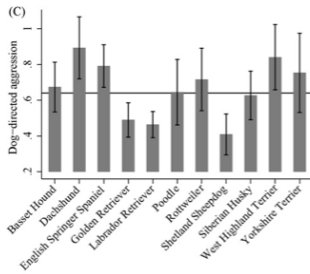
Calming cap



Treatment of Aggression between Dogs

- Strange dogs-territorial predatory intermale
 - Manage
 - Restrain
 - Re-train
 - Strange dog=food
 - Growl classes
 - Medication
 - Serotonin enhancing drugs

Interdog Aggression



The perpetrator



The Scene of the Crime



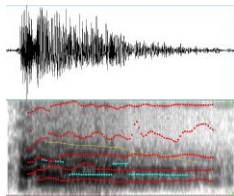


Test

- Strange person with strange dog approaches dog in her run
- Measured behavior and made sonogram

Spayed 7 GSD; their littermates intact

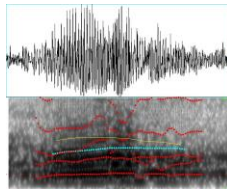
Tested 4 months post operatively



OVH bark

Lower energy lower pitch

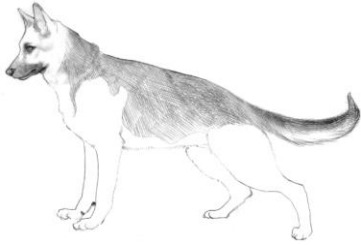
- Intact bitch bark



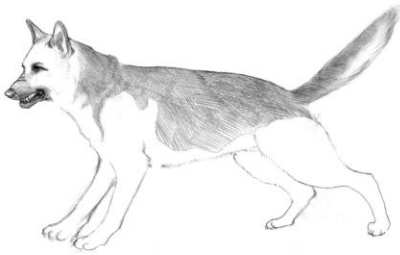
Grade 0



Grade 1



Grade 2



Grade 3

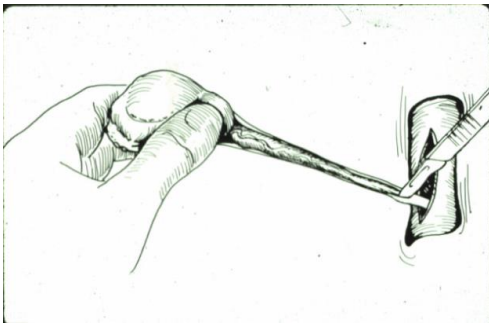


Interdog aggression Case



Intermale Aggression







Interdog Aggression



Scarce Resource =the sheepskin



Mounting Sex or Dominance



Aggression between Dogs in Household

- Territorial
 - Don't respond to submission by victim
- Dominance
 - Both dogs must agree
- Re-directed
 - Careful when company comes or owner returns

Familiar Dogs

- Reinforce hierarchy
- Or reduce all aggression

- Be aware of situations that arouse dogs
 - Visitors, owners' s returning, narrow passageways, food, access to new environment

Treatment of Aggression between Dogs

- Dogs in Same household cont' d
 - Reinforce hierarchy -probably not
 - Re-train
 - Approach of other dog=food
 - Stay and relax as other dog gets petted
 - Medication
 - Serotonin enhancing drugs

Reward dogs for mutual approach

- Dog A approaches Dog B 10 times with a food treat each time
- Dog B approaches Dog A 10 times with a food treat each time

