



Feline Human-Directed Aggression

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SYNERGY
VETERINARY
BEHAVIOR

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Topics for Today

- Review:
 - ▣ Feline social behaviour
 - ▣ Clinical Presentations
 - ▣ Common Diagnoses
 - ▣ Treatment options
 - Management
 - Medications
 - Behavior Modification



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Feline Sociality

- Facultatively social
- Avoid conflict → dispersal
- Related females and offspring
- Solitary hunters



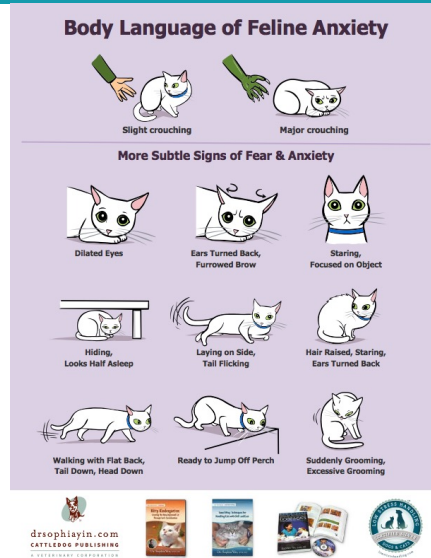
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Feline Social Signaling



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Body Language



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Social Development

- Socialization period
 - ▣ Weeks 2-7
 - ▣ Reluctant to approach humans if isolated from them from weeks 1-4
 - ▣ "Boldness" may be genetic, but "friendliness" may be due to socialization



McCune. The impact of paternity and early socialisation on the development of cats behaviour to people and novel objects. Applied Animal Behaviour Science (1995) 45, 109-124

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Cat – Human Sociality

- Litter and sire influenced tractability but handling or individual caging of kittens did not
- Cortisol concentrations were not a reliable indicator of stress in juvenile cats



Physiology & Behavior
Volume 55, Issue 6, June 1994, Pages 1119-1124



Article
Friendliness to humans and defensive aggression in cats: The influence of handling and paternity

Blank & Reiner J., Katherine A. Houpt, Hollis N. Erb, Fred W. Quimby

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Cat – Human Sociality

- Cats form distinct attachment patterns with their people
- Attachment behaviours
 - Proximity seeking
 - Separation distress
 - Reunion behaviour,

Vitale, Kristyn R. et al., 2019 Attachment bonds between domestic cats and humans
Current Biology, Volume 29, Issue 18, R864 - R865



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Human-Directed Aggression



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Clinical Presentations

- Any age
 - ▣ May hint as to motivation
- Often described as:
 - ▣ “Out of the blue”
- Often reach out when active aggression has started
- May report prolonged aggression



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To Prepare...

- Proactively ask about behaviour
 - ▣ Clients may not know that help is available
 - ▣ “Is your cat doing anything you wish they weren’t?”



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Triage as a Medical Issue

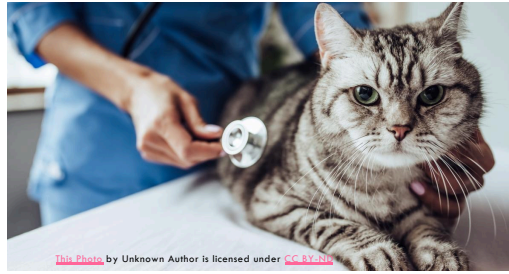
- What can be done today?
 - ▣ History?
 - Targets
 - Inciting events?
 - Environmental / physical changes?
 - ▣ Physical exam and diagnostics?
- What needs to be addressed in follow-up?



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Medical Rule-Outs

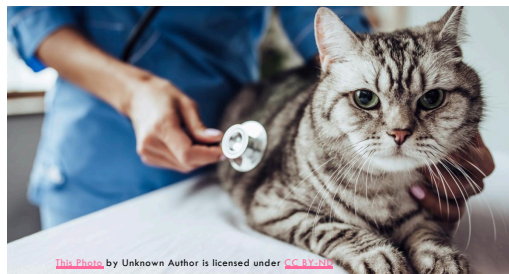
- Pain
 - ▣ Orthopedic / DJD
 - ▣ Neurologic
 - ▣ Gastrointestinal
 - ▣ Urinary
- Physiologic
- Endocrine



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Medical Rule-Outs

- Inflammatory
- Infectious disease
- Neoplasia
- Cardiac
- Central nervous system disease
- And More



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Diagnoses



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Play / Predatory Aggression

- Younger cats
 - ▣ Normal behaviour
- Singleton cats
- Hide and wait
- Pounce and Run
- Pounce and Hold On
 - ▣ Biting
 - ▣ Scratching



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Play



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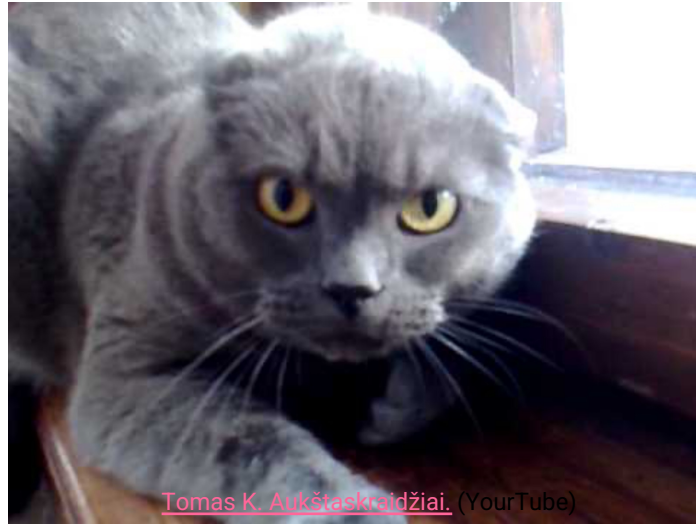
Fear-Based Aggression

- Any age, any breed
- Genetic predisposition vs experiential
- Targets
 - ▣ Towards family
 - ▣ Towards visitors
 - ▣ (Towards veterinary team)
- Body language signs → avoidance, fear
 - ▣ May act confident with experience



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Fear-Based Aggression



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Arousal-Based Aggression

- Overstimulation
 - ▣ Petting
 - ▣ Play
 - ▣ Other stimuli
- Often rapid escalation
- May be difficult to differentiate from fear
 - ▣ Often cat solicits attention
 - ▣ Confident body language



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Redirected Aggression

- 19 cats, 22 incidents of redirected aggression
- Inciting triggers 95%
 - ▣ Loud sounds
 - ▣ Intercat interactions
- Primary target – owners
 - ▣ Secondary other cats
- Fear posture prior

Evaluation of inciting causes, alternative targets, and risk factors associated with redirected aggression in cats

Marta Amat, DVM, Xavier Manteca, DVM, PhD, Susana Le Brech, DVM, Jose Luis Ruiz de la Torre, DVM, PhD, Valentina M. Mariotti, DVM, MS, Jaime Fatjó, DVM, PhD

Amat M, Manteca X, Brech SL, Ruiz de la Torre JL, Mariotti VM, Fatjó J. Evaluation of inciting causes, alternative targets, and risk factors associated with redirected aggression in cats. J Am Vet Med Assoc. 2008 Aug 15;233(4):586-9.

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Redirected Aggression

- Predispositions
 - ▣ Sound phobias
 - ▣ Indoor cats

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Risk Assessment

- Severity of aggression
 - ▣ Offensive vs defensive
- Predictability
- Vulnerable people
- Possibility of avoidance
- Concurrent health or behavioural conditions
- Rehome vs Euthanize



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Client Education

- Body Language
- Risks
- Safety / De-escalation
- Cat-friendly environment



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Environment Setup

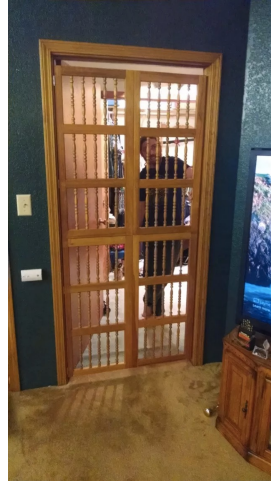
- Safe places
 - ▣ Hiding
 - ▣ Vertical
- Play/predatory
- Key resources
- Smell
- Consistent interactions
 - ▣ Key for human-directed aggression



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Management

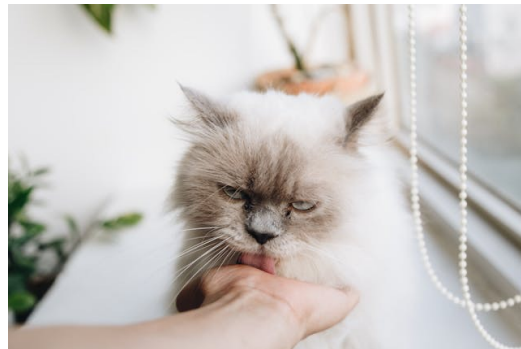
- Avoid inciting situations
- Depending on history:
 - ▣ Full separation
 - ▣ Avoid approaching
 - ▣ Avoid reach for/ contact
 - ▣ Avoid / prevent specific situations
- Other stressors?



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Behavior Modification

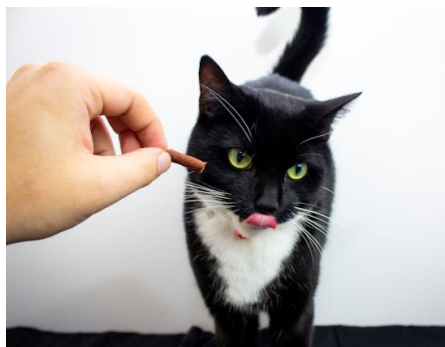
- Consent-based interactions or complete avoidance
- Structured non-touch interactions
 - ▣ Play
 - ▣ Training



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Behavior Modification

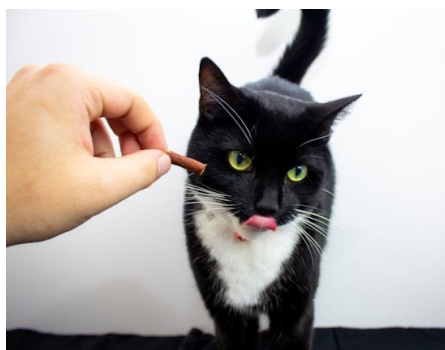
- Utilize positive reinforcement
 - ▣ Cats can be trained!
 - ▣ Positive emotional response



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Behavior Modification

- Avoid punishment
 - ▣ Negative emotional response
 - ▣ ↑ anxiety around owners
 - ▣ ↑ anxiety around other stimuli
 - ▣ May stop behaviour in the moment but not teaching what cat should do instead



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Behavior Modification

- Desensitization/counter-conditioning to approaches/touches
 - ▣ Approach as long as cat is comfortable, do something to condition a positive emotional response
 - Treat
 - Tossed treat
 - Wand treat
 - ▣ Gradually build up to approaching the cat close enough that they can receive reinforcement from the hand
 - ▣ Gradually build up to short touches, then short pets

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Psychopharmacology

- When to utilize?
 - ▣ Facilitate management
 - ▣ Triggers are unavoidable
 - ▣ Disproportionate fear or arousal
 - ▣ Considering euthanasia or rehoming



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Psychopharmacology

□ Quick-acting options

- ▣ Gabapentin
- ▣ Lorazepam

□ Mainstay medications

- ▣ SSRIs
 - Fluoxetine
 - Paroxetine
 - Sertraline
- ▣ TCAs
 - Clomipramine



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Psychopharmacology

□ Selective Serotonin Reuptake Inhibitors (SSRIs)

- ▣ Fluoxetine (0.5-1.5mg/kg PO SID)
- ▣ Paroxetine (0.5-1.5mg/kg PO SID)
- ▣ Sertraline (0.5-1mg/kg PO SID)

□ Tricyclic Antidepressants (TCAs)

- ▣ Clomipramine (0.5-1mg/kg PO SID)

□ Rapid-acting Medications

- ▣ Lorazepam (0.02mg/kg PO BID)
- ▣ Gabapentin (50-100mg PO BID-TID)
- ▣ Trazodone (50mg PO SID)



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Psychopharmacology

- Supplements
 - ▣ Zylkene
 - ▣ Composure Pro
 - ▣ Calming Care probiotic

- Diets
 - ▣ RC Calm
 - ▣ RC Urinary SO + Calm
 - ▣ Hill's CD Multistress



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Case Examples



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Case Example

- Max, 9mo MN DSH
- Hides behind corners
- Runs at people who walk by
- Grabs leg with teeth and claws
- Runs off



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Case Example

- What is the most likely reason for Max's behaviour?



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Case Example

- What is the most likely reason for Max's behaviour?

Play aggression



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Case Example

- How may the client manage (avoid / prevent) Max's attacks?



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Case Example

- How may the client manage (avoid / prevent) Max's attacks?

Avoid known stocking spots
 Toss a toy before walking past
 Attract with a toy
 Client drags a toy behind them
 Avoid play that encourages biting /
 clawing hands/feet
 Structured appropriate play
 Another kitten?



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Case Example

- What training may be helpful for Max?



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Case Example

- What training may be helpful for Max?

Foundation training
Self-engagement toys



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Case Example

- Would medications be useful for Max?



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Case Example

- Would medications be useful for Max?

Most cases don't need medications

Consider if tendency to have quick escalation, slow de-escalation, other signs of emotional arousal, aggression or fear.



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Case Example

- Ruby, 3yo FS DMH
- Bites during petting
- Prior to biting her tail starts twitching
- Prior to petting, she leans away from the hand
- She doesn't tend to approach the owners on her own, rather they approach her.



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Case Example

- What are possible reasons for Ruby's behaviour?



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Case Example

- What are possible reasons for Ruby's behaviour?

- Petting intolerance due to:
 - ▣ Fear?
 - ▣ Pain?



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Case Example

- What management can be used to prevent this behaviour?



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Case Example

- What management can be used to prevent this behaviour?

Avoid approaching or petting



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Case Example

- What training or behaviour modification could help?



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Case Example

- What training or behaviour modification could help?

Foundation skills: come, target
Desensitization and counter-
conditioning to petting



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Management Example

- Could medications help Ruby?



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Management Example

- Could medications help Ruby?

Potentially, especially if there are other situations that trigger aggressive or fearful behaviour. Or if her response is rapid and there is little warning.



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Questions?

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