Making small changes that can create positive effects for our companions in clinics!

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Can anyone tell me what I did before you all entered the room?

Quote

- We are too young to realise that certain things are impossible, so we will do them anyway
- “You may choose to look the other way but you can never say again that you did not know.”

William Wilberforce

Introduction

- Dr Liam Clay:
  - Specialist in Canine behaviour, behavioural problems, and shelter environments
  - Contractor under AABA consultants in animal behaviour, behavioural problems, and shelters with private and government organisations
  - Director and co-founder at Future Proof Training Academy
  - VTS Behaviour USA
  - Fear Free Elite Professional

4 pillars

- Describe
- Explain
- Predict
- Change

Case Study

- Harry 1.20

- Nella 6.15

Timing is key

Question

- What is the different between you walking in behind the dog
  - VS
- Waiting for the dog in the consult room?

What makes up behaviour?

Activity 1:

Take out a piece of paper and a pen

- Score positive and negative behaviours in the following video

Positive behaviours	Negative Behaviours
III	I

- Record on a piece of paper, if you would ever tell the client to stop cause they dog is in a negative state

Reflect

- How did you go?
- What did we see?
- How was your views different from others around you?
- How do we better reflect what we see?

What is behaviour influenced by?

Learning

Genetics

Genetics

- Genetics
  - Genetics can be made up of the genes of the animal (basic physical and functional units of heredity)
  - Anxiety disorders are moderately heritable (Hettema, Neale, & Kendler, 2001)
- Epigenetics
  - Study of how your behaviours and environment can cause changes that affect the way your genes work.
  - Epigenetic factors can include maternal care, prenatal maternal factors (e.g. malnourishment, anxiety or hyperadrenocorticism), and early separation (Pierantoni *et al.*, 2011).
  - Major one you want to focus on is when they are pregnant and identify canine or feline is in high fear or anxious

Environment

The environment refers to two components

Previous learning experiences, exposures and long term memories	Current environments

Different environments will create different learnt responses. To get a true reflection of mostly dog behaviour, we create a model of how the animal is in different environments.

E.g. If the animal is the same in three different places that it goes to regularly then it is stable. If 1/3 is stable then we have an issue creating a behaviour issue.

Environments

Environment

- Home (Green)
  - Safe place
  - Stable environmental variables
  - Stable interactions (Normally)
  - Stable behaviour repertoire
  - Positive associations

- Walks or Park (Green to Yellow)
  - Safe place if everything is within normal predictable nature
  - Medium to high environmental variables,
  - Medium interactions (Uncontrolled)
  - Stable to medium behaviour repertoire based on level of dog
  - Associations and memories can be positive and negative

Environment

- Vet Clinics (Medium to high)
  - Most visits will have a negative experience if dog or cat has never been
  - High environmental variables,
  - Medium to high interactions (Uncontrolled)
  - Yellow to red zone behaviour repertoire based on level of dog
  - Associations and memories can be highly likely to be negative

Learning

Learning Periods

Previous learning experiences

Sequences of behaviour

Learning

Learning periods dogs:

- Prenatal
  - Any anxiety or fear periods from mother will induce increased SNS hormones which will directly effect babies
- Neonatal: 0-14 days
  - Period of rapid sensory and locomotor development
    - It is characterized by the puppy's complete dependence on the mother for thermoregulation, nutrition, and elimination, and by behaviour that is designed to bring a puppy back into the heap of puppies and close to the mammary gland.
- Transitional: 14-21 days
  - The puppy begins to develop its senses, gains control over thermoregulation, and at the end of the transitional period, becomes able to eliminate spontaneously (and the mother stops eating its stool).
  - Puppies will be weaning off mother and leaving nest site to eliminate

Learning

Socialisation: 3 - 12 weeks (Up to 14)

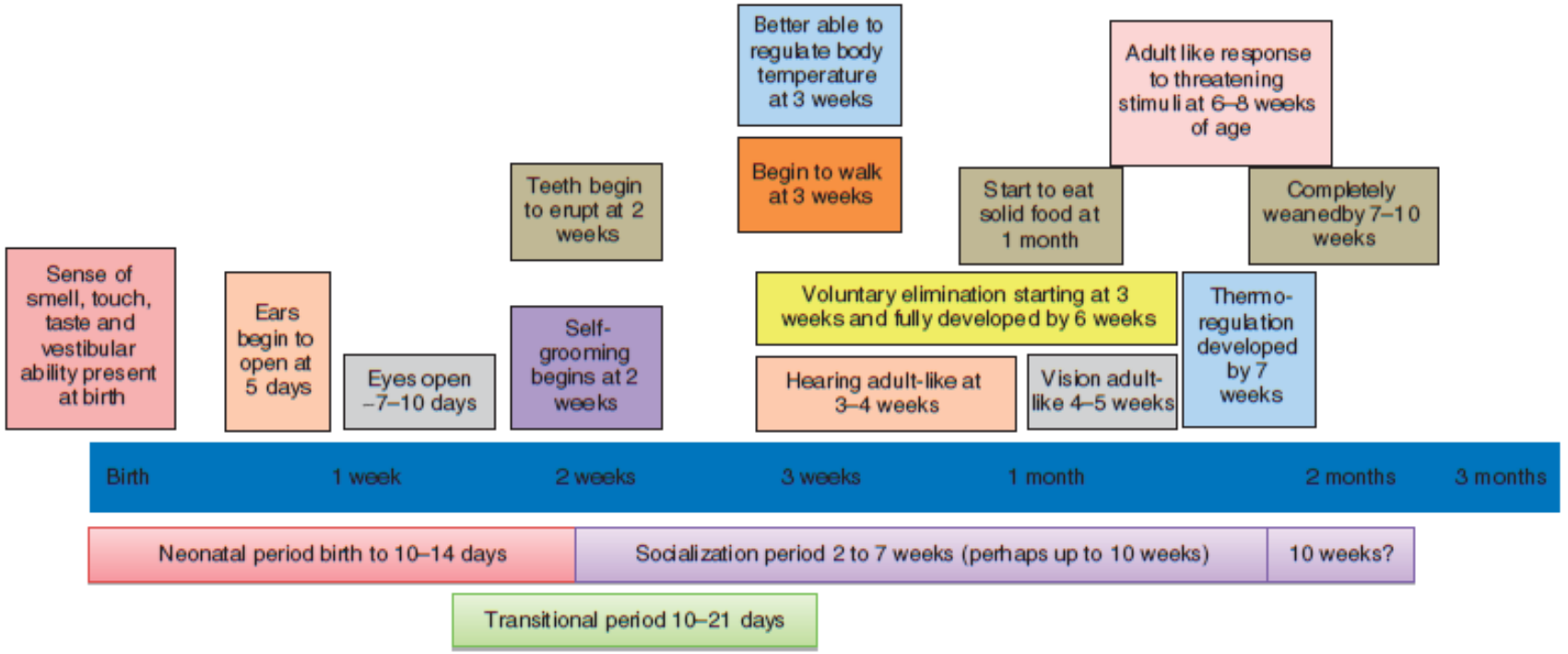
- Environmental stimuli development stage: Develops and adjusts to key environments, objects, humans and other animals
- Start of the fear period which can long-lasting negative effects on behaviour
- Forming Social attachments
  - Learning Social play
  - If exposure to conspecific social stimuli during this period is missed (i.e., the puppy has no opportunity to practice appropriate behaviour during the socialization period), a dog may show inappropriate behaviour toward other dogs later in life.
- Structure relationships
  - In one study, puppies taken from the litter earlier (at 6 weeks) had more health and developmental problems and showed increased stress at separation from the dam. They did not socialize any better to humans than puppies taken away from the mother at a later date and provided human contact on a daily basis while with the dam.
- Exploration
- Bite inhibition

Learning

Learning periods:

- Juvenile: 3-9 months (14)
  - Exploration of environment and behaviour response refined
  - Still in fear stages
    - Will refine fear, learnt to be afraid of other species, objects and things
    - Predicting outcomes in situations which will create learning experiences and memories for the next interaction
    - Rub bins, vacuum cleaners, mops etc
  - Physical Growth
  - Sensory sensitivity periods will manifest
  - Hyper attachment to figures
  - Second fear period
- Social maturation: 12 - 18 months
  - Stability in relationships with dogs and humans
  - Independence or the lack of !

Cats development



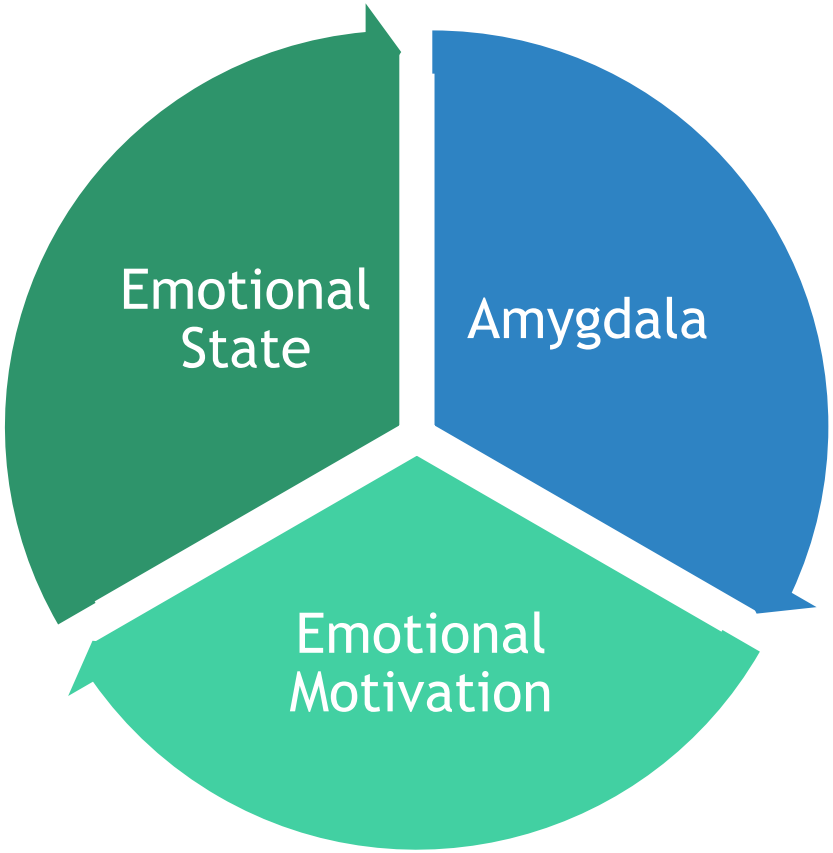
Cats development

- Fetal
- Neonatal
  - 0 to 14 days
- Transitional
  - 10 to 21 days
- Socialisation
  - 2 to 7 (10) weeks
- Juvenile
  - 2 months to sexual maturity (4 to 10 months)
- Adolescent
  - 2 to 4 Years
- Adult
  - Social maturity to 11 years

Previous learning experiences

- Previous learning in any of these periods will create positive and negative memories
  - Positive experiences (<1 years)
  - Positive schemes (1 + years)
    - How they will interact with objects and things, the way they need to interaction
  - Negative experiences(<1 years)
    - Negative coping mechanisms
  - Negative schemes (1 + years)
    - How to stop negative experiences from happening, target directed fear in one or more environments

Positive or negative



AABA
Consultants

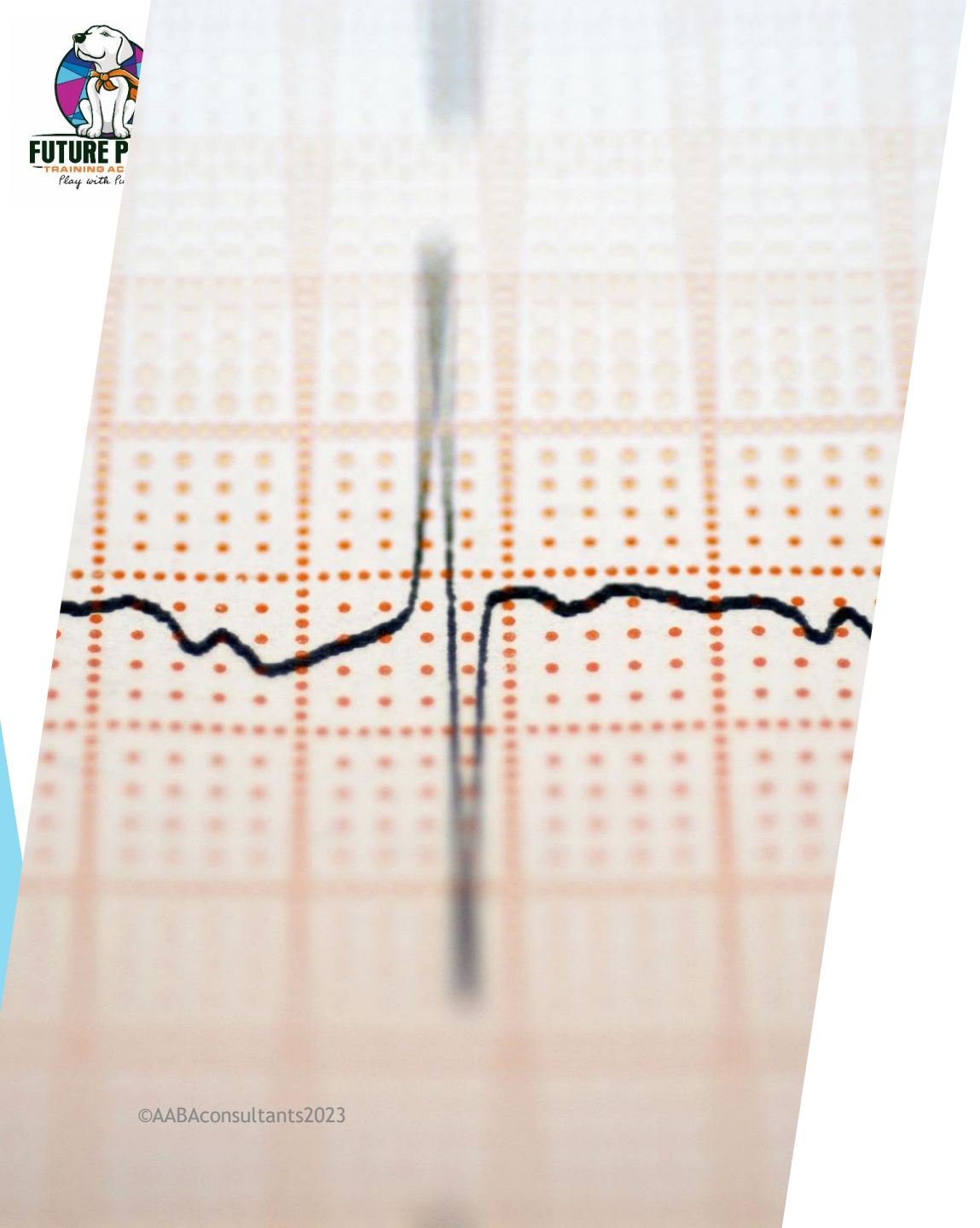
Environment

Environment

- Environment is how the environment is manifesting the behaviour via all the information coming in?

Environment

- Sight
  - Height issues
  - Flooring and light reflections
  - Movements
    - Slow
    - Fast
    - In vision
    - Peripheral vision
- Smell
  - Pheromones in the room
    - From current patient
    - Previous patients
      - Will stay on surfaces
- Sounds
  - Internal sounds inside the room
  - Internal external sounds
  - Known and unknown sounds
- Touch
  - Flooring
  - Touch sensitivity
- Taste



Health

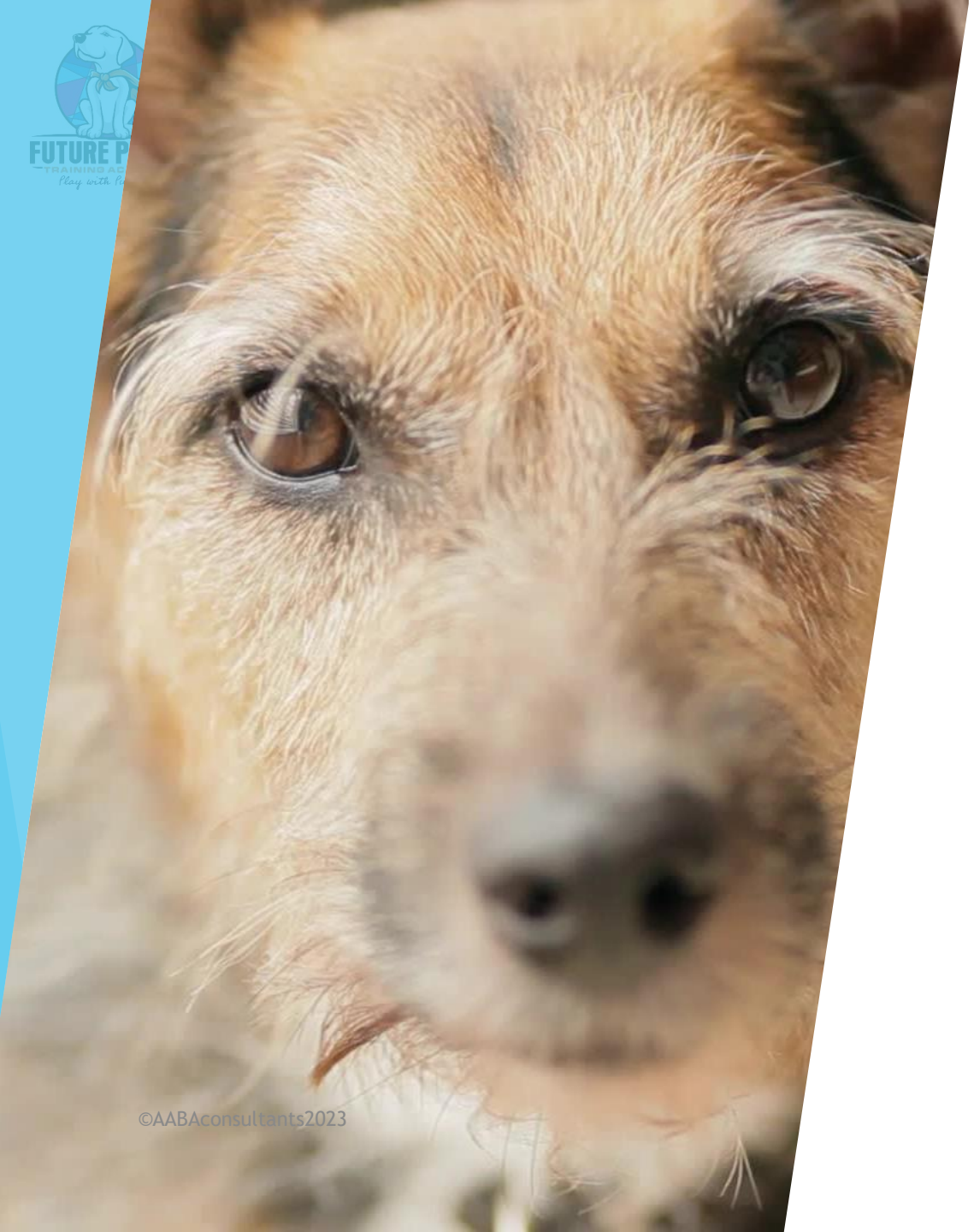
Health

General health and wellbeing of the animal, and what is the reason it is coming in?

- The reasons for coming to the clinic?
  - General check
    - Low severity to no medical issues present
    - Vaccinations
    - Nails , anal glands
  - Low issues
    - Skin issues
    - Gut issues
    - Cuts and scraps
  - Medium issues
    - Diarrhea
    - UTI
    - Vomiting
  - Severe issues
    - Injury and damage

Health

- Low severity
  - If low severity or general health of animal is good, health can be ruled out of the behaviour being produced
  - If there is discomfort due to the low severity issues, low influence can be factored in
    - E.g. Sensitivity to touch on hindlimb due to anal glads
- Medium to high issues
  - Will induce pain creating and manifesting behaviour



What behaviour you will see?

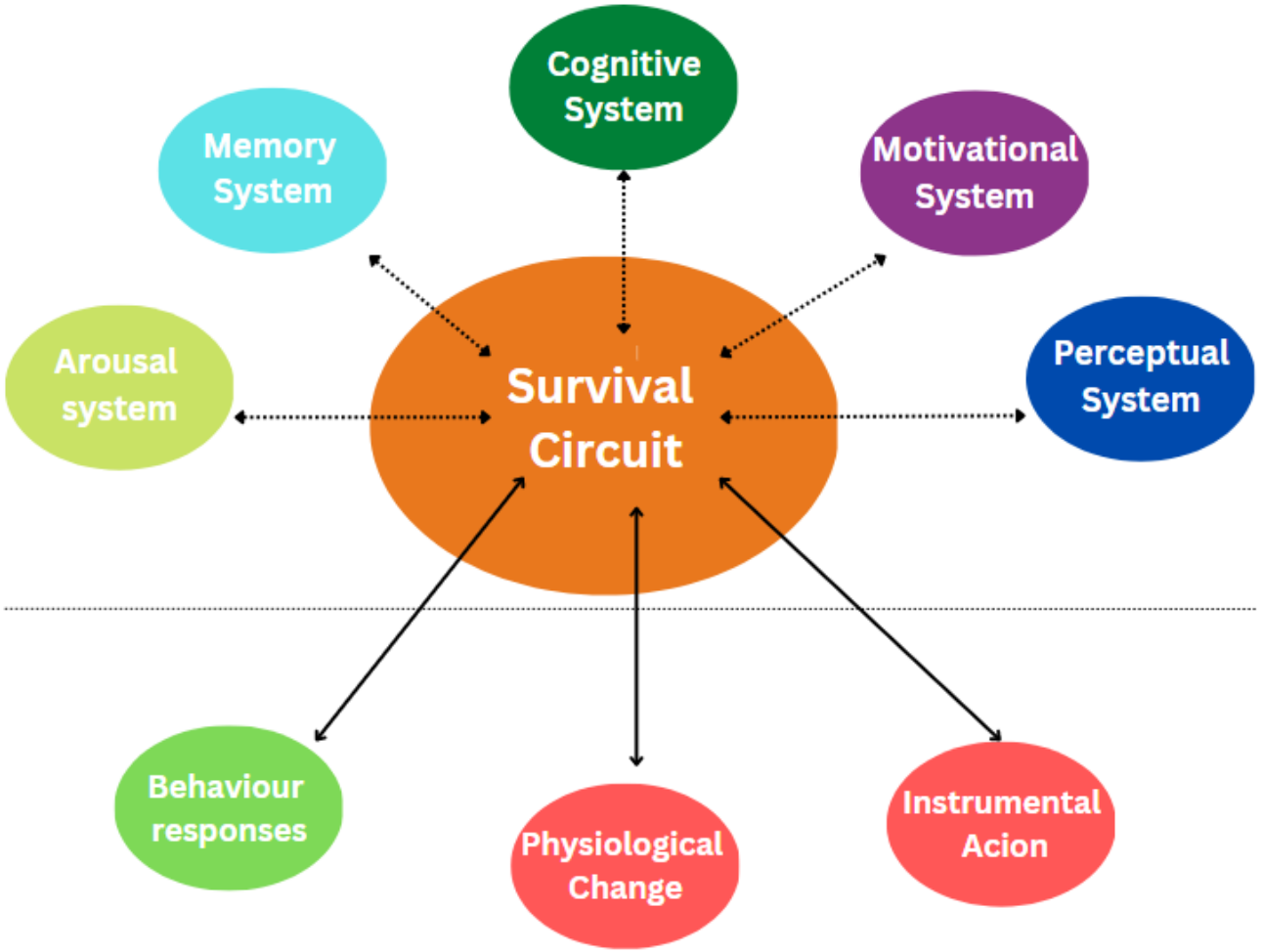
Major components in clinics

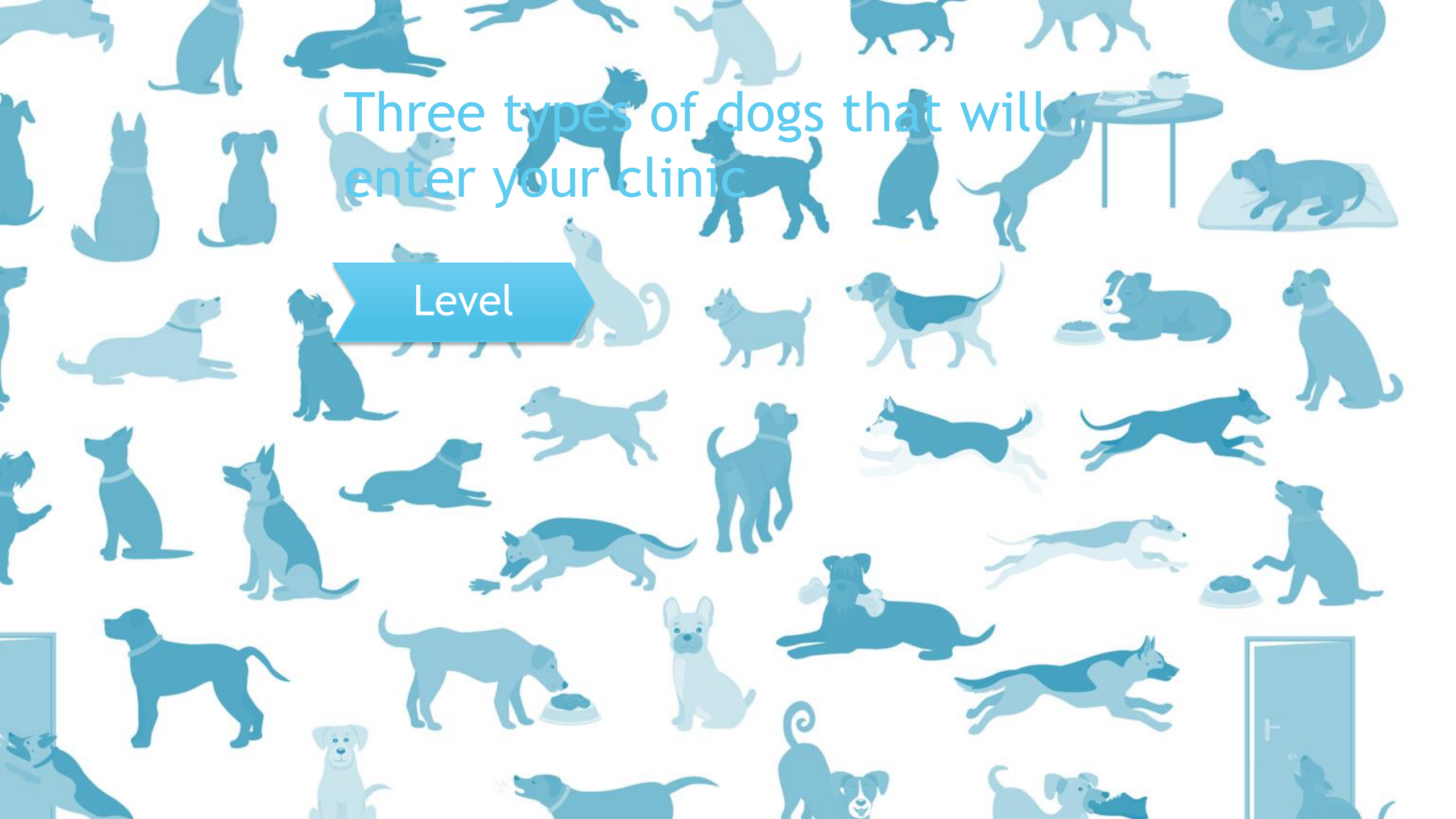
- Friendliness
  - Sociable
- Fear
  - Habits and behavioural sequences that are displayed in the presences of fear inducing triggers
  - Severity of fear will manifest while at clinic
- Anxiety
  - Habits and behavioural sequences that are displayed with the potential threat but does not mean threat is there
  - Severity of Anxiety will manifest while at clinic
- Aggression
  - Overshoot and collapse
  - Snap, nip, bite, grab

Sequences of behaviour

Reflex	Fixed action pattern	Condition response	Habit	Goal orientated behaviour
Reflex in the muscle to a stimulus	A behaviour cue that is manifested from a stimulus	The conditioned response to a conditioned stimulus	The behaviour sequences produced directed towards the stimulus or target	Occurs without a stimulus present

Schema




Three types of dogs that will enter your clinic
Level

Behaviour categories

- Rate of Change
  - Categories can change at rate of .5 – 2 secs
  - Depending on the dog
    - Level 1
      - Normal dogs or stable behaviour repertoire won't change behaviour a lot (5-10 secs)
    - Level 2
      - Problem behaviours change quicker 1.5-3 secs
    - Level 3
      - Behaviour problems will change at 0.5 secs under trigger
- Each category you need at least 7-9 cues to identify the dog in that category

How you will see it change

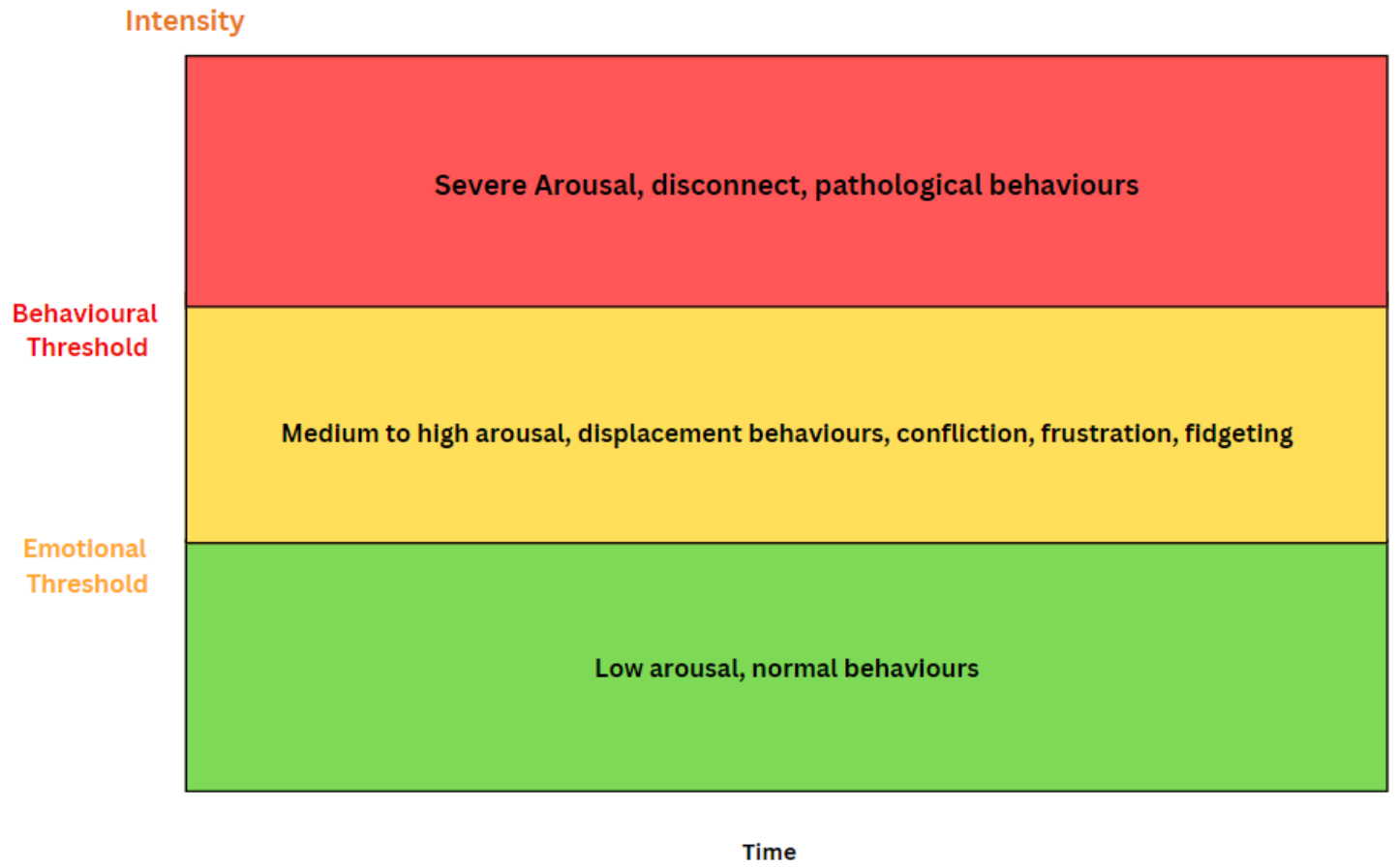
Levels	Environment: Home	Environment: Park	Environment: Clnic
1	Stable behaviour categories and cues towards stimulus	Stable behaviour categories and cues towards stimulus	Stable behaviour categories and cues towards stimulus as long as they are predictable
2	Stable behaviour categories and cues towards stimulus	Stable behaviour categories and cues towards stimulus as long as they are predictable	Unstable behaviour categories and cues, quick to respond
3	Stable behaviour categories and cues towards stimulus as long as they are predictable	Unstable behaviour categories and cues, quick to respond	Pathological behaviour

Emotional and behavioural threshold

What is the patients normal behaviour?

- Outline what the behaviour of the patient is normally
- Before
- During
- After consults

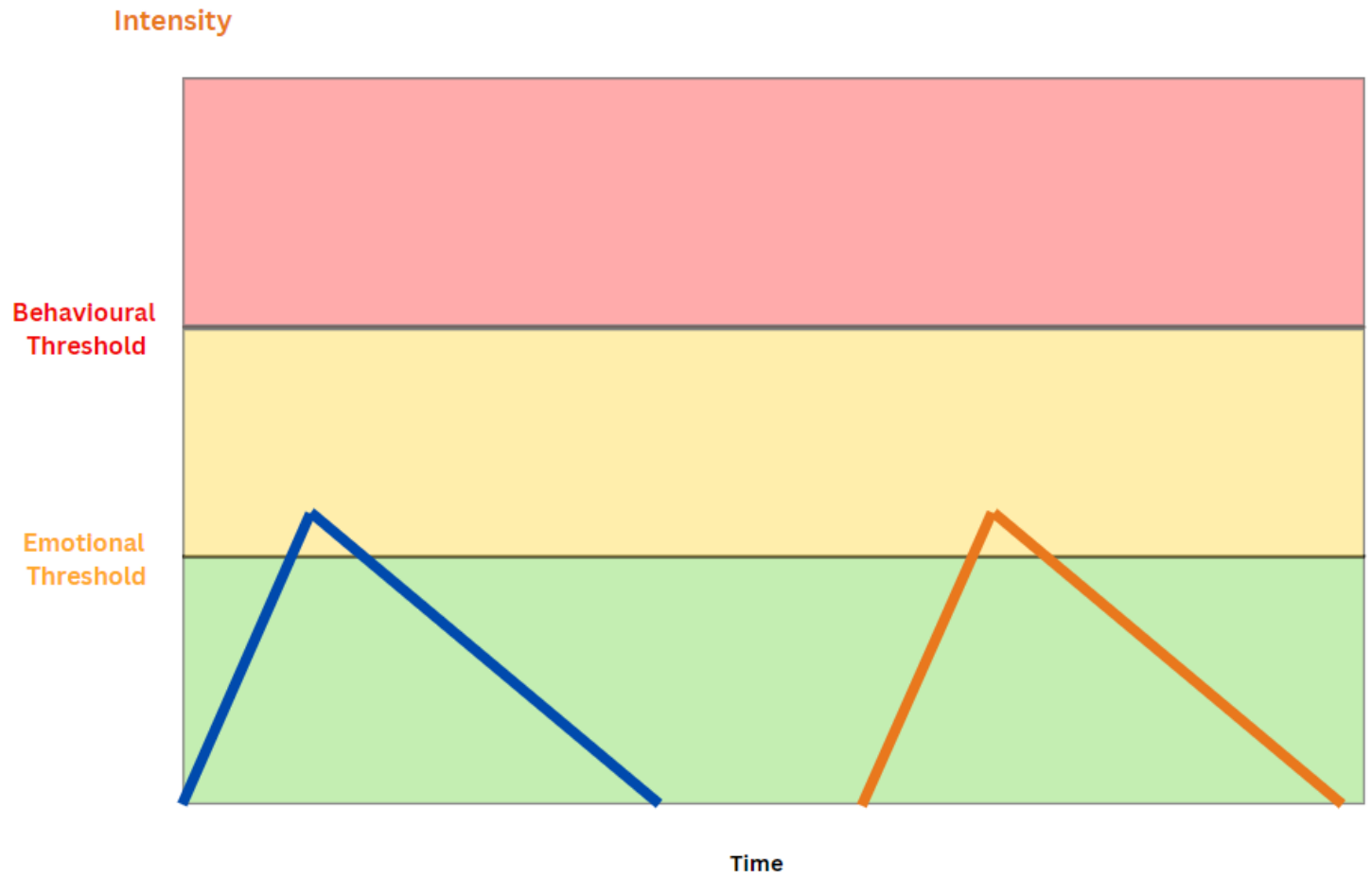
How does it deviate from the normal behaviour when patients are in care?



Emotional and behavioural threshold

As triggers or stressors are induced on to animals we want to allow sufficient time for the animal to recover

- Triggers should be identified
- Response to trigger identified
  - Green
  - Yellow
  - Red
- Recovery time outlined



Risk Factors associated with vet clinic fear and aggression

- Fear:
  - Increased with neutered,
  - received their first nail trim at an older age;
  - were rated as having severe non-social fear, or stranger-directed fear and aggression,
  - or as being stressed or aggressive during body handling;
  - had a negative change in behaviour after an aversive clinic experience;
  - and if owners indicated being nervous during situations within the veterinary clinic

Stellato AC, Flint HE, Dewey CE, Widowski TM, Niel L. Risk-factors associated with veterinary-related fear and aggression in owned domestic dogs. *Applied Animal Behaviour Science* 2021;105374.

Risk Factors associated with vet clinic fear and aggression

- Aggression
  - Reported to be fearful of the veterinary clinic,
  - fearful of feet towelling, or stressed or aggressive during body handling,
  - if the owner reported using positive punishment during routine training,
  - or if any of the following had occurred during clinic visits:
    - examination shortened,
    - use of towel restraint or muzzling,
    - dog bite directed at staff member,
    - general use of positive punishment on the dog,
    - and if the owner indicated being nervous during situations within the veterinary clinic.

Stellato AC, Flint HE, Dewey CE, Widowski TM, Niel L. Risk-factors associated with veterinary-related fear and aggression in owned domestic dogs. *Applied Animal Behaviour Science* 2021;105374.

If the system is unable to work

- Strategies need to be found unless stress will stay high
- Increased arousal in the situation
- That neural pathway will be triggered next time and manifest
- No effective coping mechanisms
- Therefore, leading to
  - Ineffective coping strategies
  - Inability to manage situation
  - Shuts down
  - Unpredictable behaviours
  - Unable to manage homeostasis

How does the normal behaviour deviate?

- How does the patients normal behaviour deviate once in pain and discomfort?
- What repertoire of behaviour is normal?

Environmental Variables

Veterinary Clinic

Auditory stimulation

Entrance and receptions

Numerous stressors leading up to clinic

- Negative bias

Non sliding doors creates fear and anxiety

- Motion sensor sliding doors may react patients too!

The reception is the first bottle neck!

Entrance and receptions

- Cats on floor creates increase stress, fear and anxiety via sound, smells and different stimulus
- Patients that have a predisposition for behavioural problems or negative bias will manifest negative behaviour at alarming rate

Consult rooms

- Highest peak fear for patients
- Patients are in pain and sick
- Red zone!
- Negative bias is high!
  - Exaggeration by negative memories of same room or similar
- Patients will freeze and refuse to enter, creating avoidance and frustration in the behaviour
- If only one entrance it will increase fear, and increase stressor points
- Surfaces like metal or wood examination tables are not comfortable
  - Will also leave “stress hormone prints”
- Lighting can effect patients ability to see

Wards

- Isolation from owners
- High traffic
- High patients around
- Increase auditory stimulus
- Increased fear and anxiety in patients
- If patients see each other it can increase fear (Kry and Casey, 2007)
- Lighting can effect patients ability to see
- Auditory stimulus
- Odours

Treatment rooms/surgical prep

Prevention is key!

Bookings

- Based on severity of behaviour and medical remember
  - If it was high severity emergency would you allow patient to wait?
  - Or do you get it straight in based on it's medical issues?
  - When is the best time to come in?
    - Based on surgical procedure
  - Should you premed and allow dog to come straight in?
  - If it is a bite risk, what should you do?
  - If in general practical, should u refer?

People

One of the major influences are ourselves!

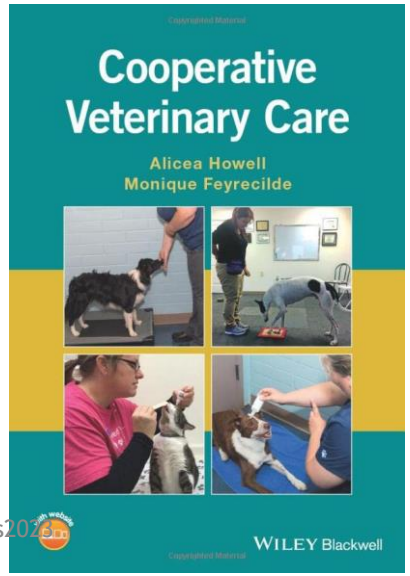
- Think about how you are influencing the dog or cat as a trigger
- How is the animal processing what they see of you
- Sights
  - Height
  - Movement in vision
  - Movement in peripheral vision
  - Slow vs fast (E.g greating a new client from behind a tall desk quickly)
- Sounds
  - The sounds you make
    - Feet
    - Voice (Mutual voice)
    - Dogs
    - Strangers
    - Objects
    - What else?

People

- Handling
  - Allowing the dog to come to you
  - Make predictable and controlled movements (To reduce fear and anxiety we make things predictable)!
  - Slow touch
    - Remember how touch and pressure receptors work!
  - Gradual and predictable touch movements in visions or that are known

People

- Reinforce cooperative care techniques!
  - Reinforce when dog or cats are interacting in positive manner!
  - Start young reinforce visits, handling and pressure in areas!



Prevention

- Dogs have a dichromatic vision, they cannot easily distinguish wavelengths between green and orange (Neitz et al., 1989)
- Cats' vision is trichromatic, although with less colour precision than humans, and they also discern the blue and violet end of the spectrum better than the red end.
- They see Ultravoilet spectrum and many surfaces and materials can appear fluorescent to them
  - Better in low light
  - Avoid bright colours, go dark

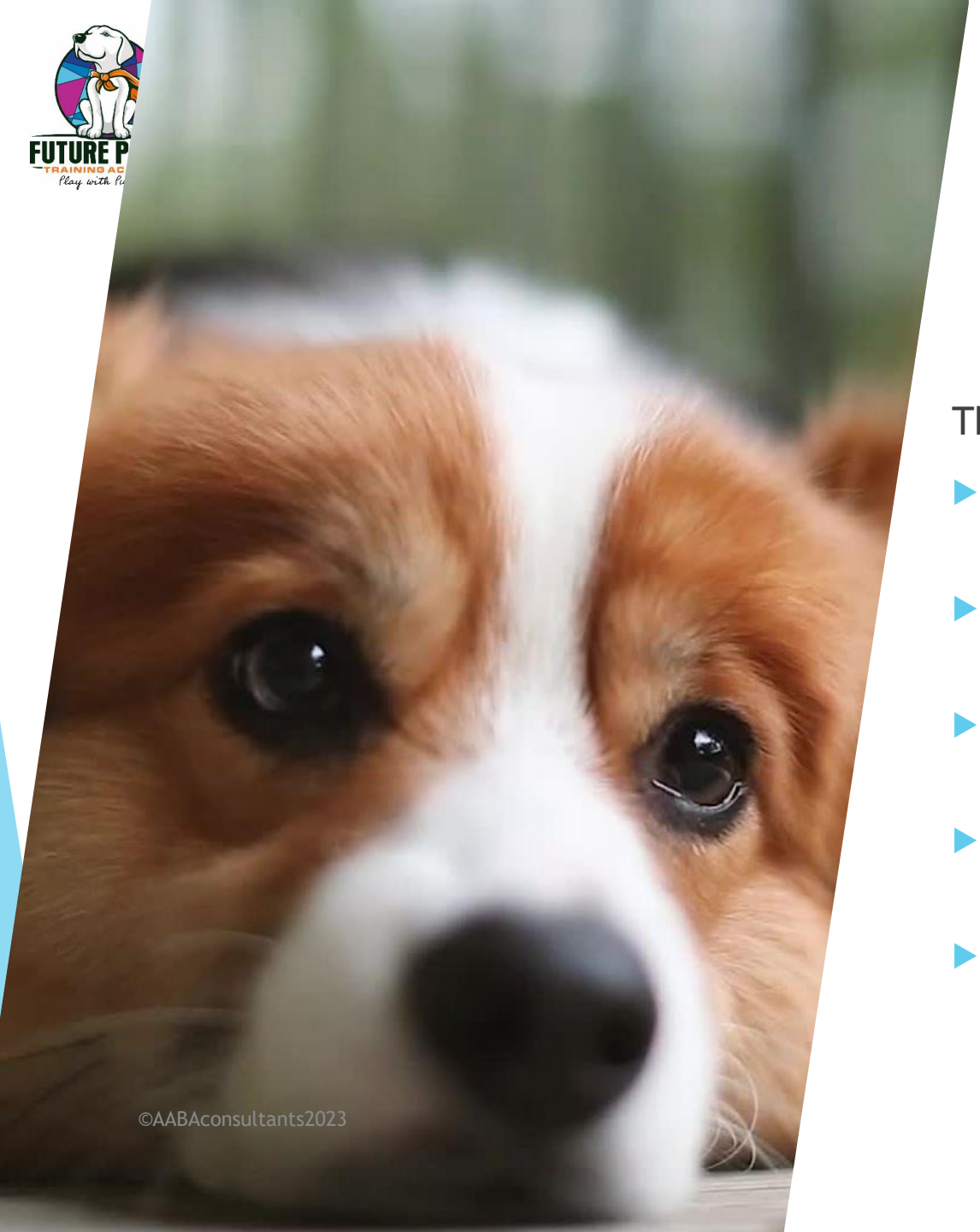
Prevention

Reducing sounds!

- Wards create high concentration of noise, so therefore use classical music (McConnell, 1990; Wells et al., 2002; Kogan et al.,2012; McConnell, 2013)
- Cats appear to respond better to music of a higher tempo and pitch than dogs (Snowdon et al., 2015).
- Suppression and rention of sound using sound absorbing boards or panels

Odours and Surfaces

- Air filtration is key for right temperatures
- Cleaning off surfaces to reduce stress pheromones or place towels on surfaces
- The most commonly used surface is a simple and standard vinyl, which is a ruberoid or plastic material.
  Rubber surfaces can be used, as well as polyurethanes and epoxy resin floorings.
- There is a balance to be found in terms of slip resistance and cleanliness. Those surfaces which are most easy to maintain can also be slippery and may increase the anxiety of patients, especially those who are sick or have mobility issues



Locations

Thing to think about

- How is this location manifesting the problems or could?
- What are triggers that can create positive and negative effects
- How can we change these things by making small changes in the clinic?
- If a level 2 or 3 dog, how do we reduce time and exposure?
- Is there enough space in these locations? Waiting room and consult room (Key areas!)

People

Things to ask yourself?

- How do I make this predictable as possible
- How should I approach this dog based on what it is showing me?
- Does this patient need to go straight to consult
- What have been the previous experiences with other staff in clinic?
- How do we reduce fear and anxiety in this patients?

Prevention

Things to thing about

- How can I change small things in a clinic to manage the environmental triggers?
- Are there certain sounds that can be reduce?
- Are there areas that could have music?
- How can we better create a safe consult room?

Thank you

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