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### Habituation/Desensitization Techniques

- Horses that bite (in hand) do not stop on a light aid
- There are correlative behaviour problems with other issues in training
  - o Develop deep stop/go responses
    - In hand
    - Under saddle
      - Do they stop/go at all?
      - Do they stop/go immediately?
      - Do they stop (and stay)/go (and stay in rhythm)?
  - o Reverse the process:
    - If you have a biting problem, don't try to fix the biting problem
    - Fix the stop/go problem; that will fix the biting problem
- Stopping and stepping back are the same thing to the horse

### Repetitions:

- On repetition #3, certainly by repetition #5, the horse will do this on a lighter aid

The whip is not a tool for punishment; it is a tool for training

### Teach:

- Step back and park (stay)
- Walk backward (and stay)
- Walk forward (and stop)
- Run forward (and stop)

Andrew McLean DOES NOT LIKE horses following you/following your feet

- This is okay for the dull/easy going horse
- For a sensitive horse, it is a very busy, confusing signal
  - o Sometimes you want them to follow you
  - o Other times you don't want them to follow you (you lead into a trailer, tie them up, then you leave them). This will be very confusing for an intelligent, sensitive horse who is trying to follow your directions.

Horse trainers may be good horse trainers but ARE NOT the best animal trainers (they're often very bad)

- Look at how horse trainers' dogs behave (often badly)
- Conversely, elephant trainers, zoo workers, etc. usually have very well behaved dogs

## Perception:

- If you ride well, your horse will go well
  - o There is more to the equation than that

We often ignore the reins (or misunderstand how much we use them)

- Dressage riders use seat and reins together, and OVERESTIMATE how much they use seat
  - o If you were running toward a cliff, you would pull on the reins; you wouldn't try and use your seat (it is relatively ineffective/has little influence)

ALL transitions that are GOOD happen within three strides (3 cycles of the gait)

- E.g., to halt (aid, reaction, halt – in three steps)

3 things reins have to do:

- Down transitions
- Slow the horse
- Lengthen the horse (frame/stride)

## Habituation

- Learning not to react to fearful stimuli
  - o Fear is rewarded by:
    - Distance
    - Fast legs

## Desensitisation techniques

1. Gradual habituation
2. Systematic sensitization
3. Response prevention
4. Approach conditioning
5. Stimulus blending
6. Counter conditioning
7. Overshadowing

If a horse is SHYING

- Turn from your leg, not from your rein
  - o Your legs control the hind legs primarily; your reins control the front end
    - A SHY is a FRONT LEG action
      - You will notice that the horse swing the front end around or bulges the shoulder out; they don't scoot the hindquarters first in a shy

- For this reason, a leg yield/shoulder in correction will not be as effective
  - A SHY is a STOP and TURN problem
    - Shoulder in is a bad fix; instead re-train stop and turn
    - Get good control of the reins and legs
- Use a leading rein, then switch to an indirect rein of opposition to push the horse, then let go
  - McLean advises getting horse's outside front leg against fence (if he is shying from the rail)
- If horse bolts, pull on reins: stop him
  - Horse likes this
    - Teach stop/halt in 2 steps

#### For a horse that RUSHES

- Make him stop AFTER the fence
  - That's why he learned to rush, from speeding up after the fence
    - He could have been caught in the mouth, hit the fence, etc. He became afraid of the pain associated with the fence, so rushed away
  - Decrease the distance he stops after the fence over time
    - First stop 10 strides after, then reduce to 8 strides after, etc.
  - Once the horse can stop AFTER the fence, THEN you can ask with half halts before the fence to slow him

#### Dressage (or some of the specific movements) was developed for use in war

- It is hard to imagine the top 10 dressage horses in the world in war – or even carrying a gun

#### Capsicum(pepper) Spray and Tear Gas

- Has very little effect on horses
- Not so with humans and dogs

#### Aerosol Spray Fear

- Sight is usually not the problem
  - May associate with it later, but horse can't differentiate between a canister of spray and a flashlight
- Sound and Feeling (spray on the skin) are usually the problem
  - If sound is the issue, blend it with another sound the horse is used to
  - If feeling is the issue, blend it with another feeling the horse is used to
    - Get a horse used to being sprayed by a hose first (with water); once they are used to this, add aerosol spray;

- Sound is minimized/extinguished; can gradually turn down water so aerosol sound is more noticeable/water less so
- Feeling of spray is blended with feel of water; gradually move aerosol spray to area of horse that is dry

Round pen works with horses because they can't escape, BUT

- The flee response is what they experience first
  - This can be SUPPRESSED but not ERASED
- If a horse has a high flee response you need to be VERY CAREFUL if training in a round pen
  - You can't extinguish this behaviour
    - It will come back

### 1, Gradual Habituation

- This works because the horse can get away from it
  - Park the trailer in his paddock, he can get as close or stay as far away from it as he likes

### 2. Systematic Desensitisation

- the handler holds the horse to prevent the flight response
  - the aversive stimuli is brought closer
  - OR, the aversive stimuli remains stationary, the handler brings the horse closer
  - e.g., getting a horse to stand on a tarp"
    - the best way is to start with the tarp spread out, 1 m. from wall
    - walk horse through gap until comfortable
    - gradually move tarp closer to wall until horse walks on tarp

### 3. Response Prevention

- the handler holds the horse to prevent flight while exposed to the stimulus
  - problem: there can be 'flooding'
    - if you flood the horse in fear response, an extreme sight response is stimulated
    - if the horse then runs away, now you have another problem
    - stop his feet from moving
      - that makes him feel safe because his legs haven't moved

#### 4. Approach Conditioning

- horse habituates to an object and chases it (*video example of timid horse chasing a ball*)
  - this makes him feel brave
    - example: cow horse, field hunter
  - problem: care must be taken not to induce too much escape behaviour initially
  - can be generalized to other objects (e.g., ball)
  - you can use brainwash techniques
    - horse can run after ball but you stop him before he gets there; leave him wanting more. Get close, but not too close.

Reasoning: humans can reason; horses can't. BUT...

- There are 8 steps to reasoning
  - o The lowest level is, if A causes B, then A1 causes B1
    - Horses are fairly good at this (making connections)
    - You can change the colour of a thing, or the shape – but not both at the same time

#### 5. Stimulus Blending

- e.g., spray horse with aerosol when he's being hosed down
- the horse is already habituated to a stimulus
- spray him with that thing, then simultaneously spray him with what he's scared of
- for the head shy horse, use a damp towel
  - works better than a dry towel; the feeling is different
  - rub him all over his head with the towel, then gradually work your hand under the towel

#### 6. Counter Conditioning

- previously fearful stimulus (now habituated) can be used by Classical Conditioning to signal the arrival of a good thing (such as food)
  - e.g., turn on clippers before food arrives
  - if scared of something, expose them (habituate) then feed them

- this technique is NOT OVERLY USEFUL
  - use as part of the package
  - not good by itself
  - is far more useful if done at the END of a training process

## 7. Overshadowing (e.g., Pavlov)

- when two or more intense stimuli are introduced, only ONE will be responded to
  - the other UNDERGOES HABITUATION
- handler elicits GO and STOP responses, while noxious stimulus is gradually introduced
- 'head down' technique may be used later

### Train STOP/GO

- Horse's attentional mechanisms can only go in one direction at one time
- Don't use stop/go at the same time when training
  - o Train horse properly under saddle
    - Don't resort to big bits/big spurs, etc.
- It's easy to do, easy to teach

### Head down:

- Train him to lower his head by pressure/release
  - o Very valuable
- Not a behavioural response
  - o Is a physiological response
    - Baro –receptors located in throatlatch area
      - reduce blood pressure when head lowered
      - blink rate slows after 30 seconds
    - Long necked horses can have an aneurysm if the head is lowered too long

### With stop/go:

- It's the GIVE that rewards
  - o Stop=negative
  - o Go=positive
    - Meaningless otherwise

Horses that leap in the start box usually have a bad stop/go response

Backward is much more useful than forward

- Forward can turn into running away
- Most people can run backward as fast (or faster ) than a horse can go backward
- Teaching back is good for the vet and farrier

#### Kicking:

- Think of it as one wheel turning faster than the others
- Ignore the intention
- Put the brake on the horse; make it step back
- You may have to use a chifney bit to get the stop
- If he kicks badly, send him back fast
  - o Match your amount of pressure to his
  - o Watch for the leg wobble – if he’s not going back straight, he is still resisting
  - o Eventually he will lower his head and give up

#### Giving injections:

- Habituate with the skin pinch
  - o Use back

#### Teach ground work:

- Make sure stop/go is deeply ingrained

#### Horses with hard mouths and dull responses suffer more

- They suffer colic more frequently
  - o This is a chronic stress response

#### If the horse is scared, ask for the turn response

#### Diagnostic tool:

- If putting something on for the first time (saddle pad, blanket)
  - o Ask him to step back
- The same goes for breaking: get on, ask him to step back

#### Eight Principles of Training

- All are adapted from Training Process and ethology
- Seligman and Maier (1967): failure to escape traumatic pressure (dog shock experiment)
  - o Random, escapable pain is okay
  - o Predictable pain is easy to deal with – animals are happy, no physiological response
  - o Unpredictable, unescapable pain – animal is unable to deal with it
    - The horse need to learn how to get rid of pressure
      - Decelerate, stop

- Bits hurt; bitless bridles operate through pressure so also hurt
- PRESSURE = PAIN
  - They are on the same continuum

Recognize that the horse needs:

- Light aids
- To get self carriage

Horses are dangerous; they don't understand the consequences of their actions

Security/insecurity

- Our job is to make horses secure
- Rein aids/anger/emotion can cause insecurity in a horse
  - Conflict behaviours arise from this
    - Rearing, bucking, bolting, etc.
- First you must fix the root problem

Teach the horse to stop on a long rein

We have learned to believe the horse 'on the bit' is beautiful

This is just a perception

If a perception exists long enough, it becomes reality

Walk must be in the range between 40 and 65 beats per minute, and horses should be able to achieve either edge of that spectrum.

Trust arises from good training

- Animals have evolved to predict and control their world and escape noxious stimuli
- Horses need to learn signals; orphan foals don't learn these signals
- Horses learn to give and receive signals
  - That is communication

Equitation (riding) uses pressure and pain as signals

- Unclear signals are viewed as a pain source
- Signals must be
  - Predictable
  - Controllable
  - Escapable
- When pain is high, horse = learned helplessness

Most important when training a horse is to have a good system with clear signals

## 8 Training Principles

1. Understand and use learning theory appropriately
  - a. Movement
  - b. Other aids
  - c. Light pressure
  - d. Pressure
  - e. Stop/go/turn
2. To avoid confusion, train signals that are easy for horses to discriminate
  - a. Different aids operant for:
    - i. Up/down gaits (i and ii very similar)
    - ii. Faster/slower
    - iii. Longer/shorter - brief aids
    - iv. Turning of forelegs
    - v. Turning of hindlegs
  - W – 55
  - Tr – 75
  - C – 100
  - Add aids for 2 steps then release
    - o Keep giving aids every 3<sup>rd</sup> step until established, then maintain
3. Train and shape responses one at a time
  - a. Acceleration
  - b. Deceleration
  - c. Turning forelegs
  - d. Turning hindquarters
    - i. A basic attempt
    - ii. Obedience: an immediate response from a light aid
    - iii. Speed control: maintain speed, gait, tempo, stride length
    - iv. Line control: maintaining line and straightness
      1. Drifting usually from the front legs
        - a. Use reins to correct
    - v. Outline: maintaining head/neck posture
    - vi. Generalisation: whenever and wherever required
      1. What you do at home, you should be able to do anywhere
      2. Test it out in different situations
      3. The wheels may fall off but it's easy to repair because they have already learned this

A crooked body is a symptom: drifting, or attempting to drift.

- If they're hollow, they'll drift hollow

The last part of relaxation is going straight.

Tense horse:

- Teach a long walk at home.
- Don't go to shows until this is established
- Test it out in different situations; places
- The wheels may fall off but it's easy to repair because they have already learned this

The number 5 is magic:

- Between 3 and 7 attempts/exposure will establish this
  - o Try something different approx. 5 times (5 water jumps, trailers, etc.)
  - o After that, they can generalize it is okay
  - o If you hold all the negatives up together, there is only one commonality
    - That is the trailer, water jump
- 4. Train only one response per signal
  - a. What are primary rein responses?
  - b. What are primary leg responses?
  - c. Don't change the recipe
  - d. Ambiguous signals = lowered predictability
  - e. Increased stress response
    - i. Divide it up: neck bend/jaw flexion comes from the rein aid (not leg)
      - 1. Turn fingernails to the sky to achieve it
- 5. For a habit to form effectively a learned response must be an exact copy of the ones before.
  - a. Pressure **and** release
    - i. Strength **and** timing
      - 1. Go from light aid to stronger aid to release
- 6. Train persistence of responses (self carriage)
  - a. Training is about teaching the horse to go on his own
    - i. Maintain rhythm, straightness, outline
  - The horse should maintain self-carriage for 2 strides when releasing the aids
    - o If it stretches faster than this, there is no self-carriage
- 7. Avoid and dissociate flood responses because they resist extinction and trigger fear problems
  - a. Be VERY CAREFUL with round pen work
  - b. If the horse is going with a low head, it's okay
- 8. Benchmark relaxation (to ensure absence of conflict)
  - a. Go back to 2 finger rule on the cavesson noseband. Do away with crank nosebands.
    - i. If you deform bone/cartilage (as you can do with a crank noseband) that is no longer SPORT
    - ii. Remember: the eyes of the world are on us.

- When one behaviour disappears, another will often arise (it was masked)
- He will ride/reform rearers, but will not take a flipper (too dangerous)
- The 'head high' attitude is the most adrenalizing
  - o A low head lower blood pressure
- If a horse backs up
  - o **Don't** let them SHORTEN THE NECK **first**
  - o Move the legs first (tap on legs with a stick)
- If a horse backs crookedly, usually its left or right legged (asymmetry)
  - o You have unequal acceleration of the legs
- When turning use an opening rein
- Overshadowing is less effective if using lowering of the head in a high energy situation
  - o It's good when working with vet, farrier
- Regarding age of horse and habituation
  - o The older the horse, the harder it gets; but can be done
- Pulling back (when tied up\_
  - o Pressure is on head, pressure is released when the halter/rope breaks = reward
  - o Develop a method so that you do not allow reward for the bad behaviour
- As a trainer, if the horse gives us a certain amount of pressure, you need to double it in return
- **Teach him to be soft. Don't force him.**
- You need to be more sympathetic. Use lighter pressure if/when you can. This gives the horse freedom and security (if working with a normal horse/normal situation).