

Characteristics of and the changes in the Belief Structures developed for our canine friends

By Chad James June 8, 2015

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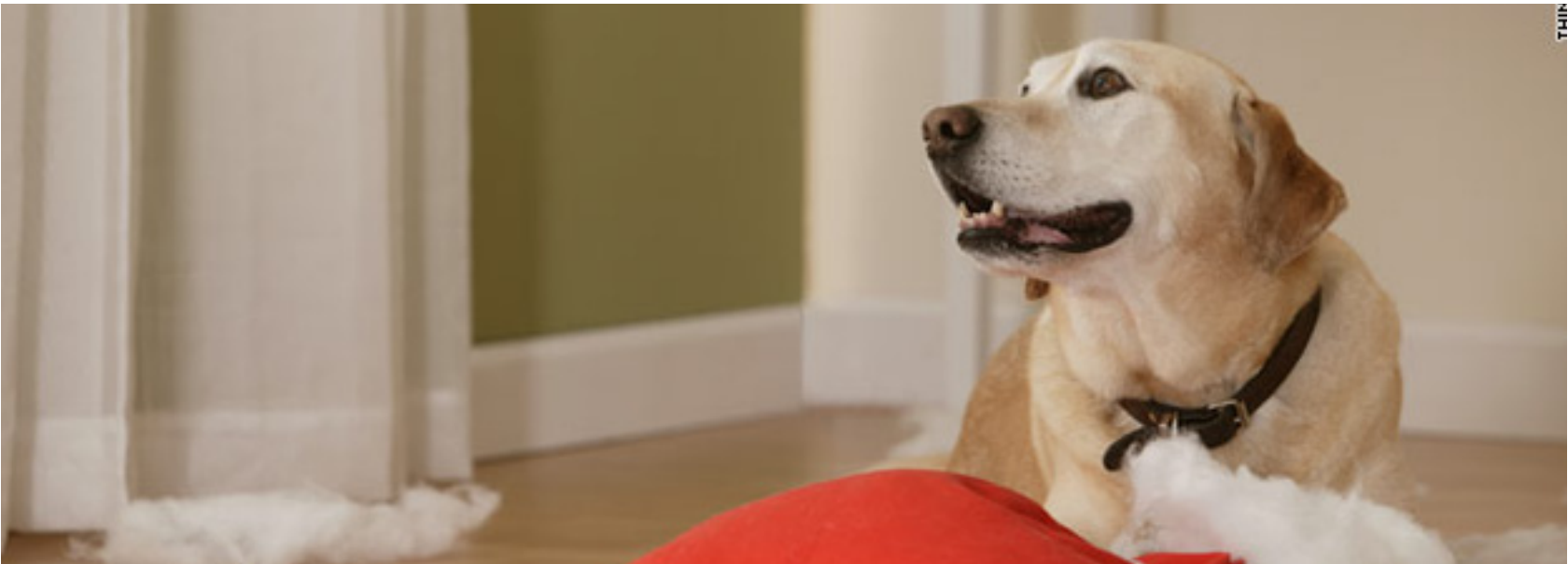
There has and always will be a “great” debate over what is the best mechanism for gaining cognitive behavioral control over ones canine?

Is it through “corrective” aversive control methods or through “reward-based” appetite encouragement efforts?

Or is there a new non-aversive technique that encompasses and satisfies both the control method and encouragement effort?



PREVIEW – A simple, “No”, is most often not enough to change an inappropriate behavior.



Years of training experience show that utilizing just an electronic “No” during training sessions provide unsatisfactory long-term results.

Reasons

- External experience
- Immediately after the dog has committed to do something
- The dog is looks for what to watch out for
- Confusion occurs easily
- No permanence of habit

We are not here to argue or dictate the scientific literature as the evidence has been well documented and written about for generations and made available for all to review at one’s leisure. (Classical Conditioning, Instrumental Conditioning, Animal Cognition, Aversive Conditioning, Conditioned Safety Stimulus, Discrimination Learning, Generalized Avoidance Response, Generalized Relaxation Response, Negative Reinforcement, Negative Punishment, Positive Reinforcement, Motivation, Safety Signal Theory, Opponent Process Theory, Operant Conditioning, Incentive Learning Theory, Drive Theory, Conditioned Stimulus, Non-

Evolution of Training

AVERSIVE		NON-AVERSIVE
<p align="center">CORRECTION ONLY (NO)</p> <p>Stim Level: high</p> <p>Timing: immediately after</p> <p>Dogs View: negative</p>	<p align="center">ESCAPE AVOIDANCE (NO)</p> <p>Stim Level: Initially low and brief, if behavior persists high stim applied</p> <p>Timing: immediately after</p> <p>Dogs view: negative, I can avoid if I do the right thing</p> <p><i>Over time stim level increases</i></p>	<p align="center">GUIDANCE TRAINING (YES)</p> <p>Stim Level: low as possible</p> <p>Timing: While dog is performing command sequence</p> <p>Dogs view: I am in control of stim, turning stimulation off is rewarding</p> <p><i>Trainer becomes coach</i></p>

Conditioned Stimulus, Partial Reinforcement, Reward Appetitive Conditioning, and etc...)

However, it is important to condense this information into the main structures utilized during the evolution of the electronic stimulation control methods, and they began with:

Corrective/Punishment Aversive Structure

After many years of the canine world having experience with utilizing electronic correctional training methods and with the results not really satisfying the need to control dogs misbehaviors, they sought assistance from the scientific community to create alternative, improvement structures.

Escape/Avoidance Aversive Structure

Herein, began the next generation of training disciplines which followed the scientific communities escape/avoidance paradigm. This structure allowed the dog to receive:

- a neutral stimulus (a short burst of an electronic stimulus – called conditioned stimulus - CS) followed by
- a potent stimulus (a continuous length of the same electronic stimulus – called unconditioned stimulus - US).

After repeated trials, the dog would soon begin to respond immediately to the neutral stimulus with only seldom use

of the potent stimulus to reinforce the neutral stimulus.

However, it was soon noticed that for escape/avoidance paradigm to be most effective, (and by scientific definition), it again had to be administered at an aversive static level and therein did not address the overall desire to reduce the occurrence of using electronic stimulus activations as it was still based upon an aversive structure.

However, what was learned by our observations was that the timing of the occurrence of the stimulus was as important as the level of stimulus. It could be perceived at one moment as a negative reinforcement or as a positive reinforcement; or when

“As electronic levels lowered ... dogs began accepting their learning structure more quickly and elevating above performance expectations.”

not applied “at all”, it could cause “worry” by the dog as to when or where would the aversion happen.

Herein, and as always, the advocates for utilizing food rewards (treats) as a means to engage cognitive control over the dog’s actions; were present. (This style always worked when the dog was close in to the handler and therein both entities could get their short dose of the “feel good-moment”).

Incentive Non-Aversive Structure

What was really needed was a true non-aversive “structure” that would overcome the dog’s adrenaline rushes, but not interrupt training momentum, and to be accomplished at distances of greater than 50 ft.

What became the next obvious choice for us engineers was to design using lower levels of the afore mentioned Aversive Structures, and provide variable levels of electri-

cal impulse stimulation which are available by most of today’s manufacturers.

As these electronic levels lowered, dogs began accepting their learning structure more quickly and even elevating their performance well above expectations (and even within generations of the same “breed lines”).

Then, the questions arose, “How and why were dogs so willing to answer the bell; when in the past, they were not as willing?”

Some of us, who had been in the industry for years and who had lived through both styles of the Aversive Structure and then being personally involved with this new Non-Aversive Structure; continued our investigation.

We knew that the reward-based community had been borne out of observing many decades of users overusing and abusing the aversive

techniques on dogs and they were not buying onto this new non-aversive process without some sort of explanation from the scientific community - even to the point of stating that, “Anyone using electronic devices could not really be called a dog trainer when using these methods.” They were right, the previous misuse and overuse was wrong.

In devoting substantial ground time to answer the above question, we soon understood what the transitioning moment was all about – the dogs were teaching us.

Herein a listing of our findings

Punishment/Correction based is:

- An external experience that is immediately provoking and is activated after the dog has committed to do something,
- Immediately the dog is

looking for what to watch out for or from whom,

- Confusion occurs unless the trainer explains what should be next to do to be safe (generally the trainer is not noticing this need).
- No permanence of habit as the dog's expectation and belief is that at some point in time, they will receive an electronic message that makes them feel very uncomfortable.

Escape/Avoidance based as an improvement:

- An external experience that may be provoking and does appear after the dog has committed to do something just like Corrective/Punishment; but here the first neutral electronic cue signal allows the dog to be notified that a secondary potent reinforcement may occur if it does not act quickly.
- Immediately the dog is looking for what to do to

avoid the secondary potent stimulus,

- This predictor can reduce the confusion as long as the trainer explains what is next to do to be safe – permanence of habit is improved from the use of true Corrective/Punishment Training as long as the second potent stimulus is offered intermittently as a convincer (a partial reinforcement).

Comparison of Training Theories

CORRECTION/ PUNISHMENT TRAINING	ESCAPE/ AVOIDANCE TRAINING	REWARD BASED TRAINING	INCENTIVE BASED TRAINING
<p>External aversive experience</p> <p>Occurs immediately after</p> <p>Provoking, use high level of shock</p> <p>Dog's response is to watch out</p> <p>Confusion potential is very high</p> <p>No permanence of habit</p>	<p>External aversive experience</p> <p>Occurs immediately after</p> <p>May be provoking, use lower and higher levels of shock</p> <p>First cue notifies dog that a secondary reinforcement may occur</p> <p>Dog looks to avoid secondary stimulation</p> <p>Predictor can reduce confusion</p> <p>Permanence of habit improved</p>	<p>External non-aversive experience</p> <p>Occurs Immediately after</p> <p>Dog trusts handler</p> <p>Trust is that the handler will satisfy appetive nature</p>	<p>External non-aversive experience</p> <p>Occurs immediately before and during training sequence</p> <p>Stimulus is non-aversive (sound, vibration, impulse)</p> <p>Dog believes it controls the stimulus</p> <p>Permanence of habit is quick, pronounced, long lasting</p>

Reward based is as it should be:

- An external experience for the dog with its handler,
- Wherein, "I trust you", is the dog's belief, it is internalized,
- The dog believes and trusts that the handler will be there for the dog at all times to satisfy its appetitive nature.

Incentive based is new to most:

- The timing of activation of the outside stimulus is completely opposite than the activation rules of Corrective/Punishment, and Escape/Avoidance Structures and the levels used to gain control are far below anyone's expectations,
- It is the quickest means to create an internal experience for the dog wherein this outside stimulus consistently follows the dog, and belongs totally to the dog,
- Wherein, the dog's belief system is, "I trust me" as the stimulus becomes ingrained in the dog's own

actions – "It is what I do which turns it off, I believe it is what I do and I am convinced that I am in control."

- Note: As long as it is non-aversive, the permanence of habit is quick, pronounced, and long-lasting.

Please appreciate what the scientific community has known for many years

"When an outside non-aversive stimulus (below the pain threshold of a dog under-going training) is superimposed onto a dog's sensory system during the dog's movement toward the objective, and then this outside stimulus ceases when the dog arrives at the objective; then this action and its result will become learned very quickly and with improved permanence of habit."

If you think of athletes and how they achieve great success, you will always see a coach in the background who is guiding the athlete through their exercises allowing them to continue to be successful building upon their own self-confidence.

When the handler/trainer allows their dog to acquire this fact - that they indeed are in control of their own actions, the handler will observe a willing performer at measurable, improved performance levels.

This transcends from the aversive style of, "You will do it, my way" and offers an internal self-confidence which is not achievable even through the standard food/treat reward based structure – whose performance levels generally succumb very quickly.

We have developed training techniques and have tested these results upon many dogs (breeds) over the last 15 years to know that by merely adjusting the moment of activation will change your results in the first training session. That is how easy this new non-aversive technique allows for the dog's "Belief Structure" to evolve.

Make sure that you activate the stimulus early and offset at the moment that the dog achieves the target behavior (objective).