

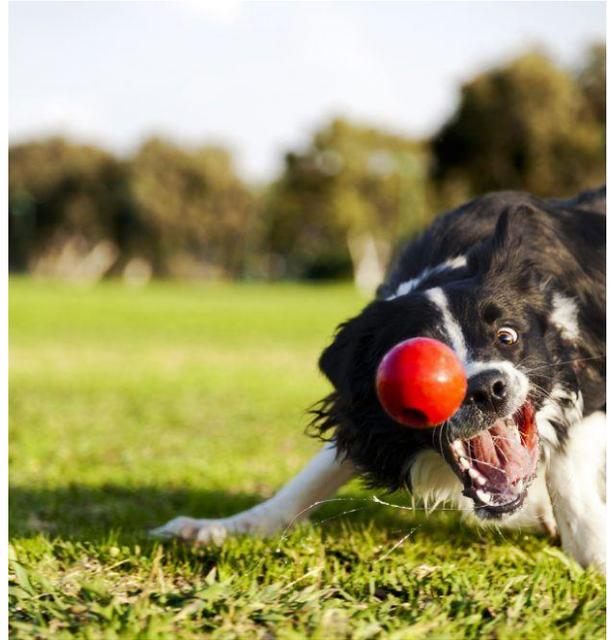
A Dog's Hierarchy of Rewards



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In 2016, I published a blog post entitled *Bryn Hierarchy of Rewards* in which I discussed the different reinforcers I use when training and the 'value' they have for my learner. In my article entitled rewards and positive reinforcement consequences, I discussed the meaning of *rewards* versus *reinforcement*. In this article I would like to take a look at "hierarchies".

When needs are not being met, animals will be motivated to try and fulfil those needs. Psychologist Abraham Maslow's *Hierarchy of Needs* is a motivational theory in psychology comprising a five-tier model of human needs, often depicted as hierarchical levels within a pyramid.



Maslow stated that people are motivated to achieve certain needs and that some needs take precedence over others. Our most basic need is for physical survival, and this will be the first thing that motivates our behavior. Once that level is fulfilled the next level up is what motivates us.

The original hierarchy of needs five-stage model includes:

- 1. Biological and physiological needs** - air, food, drink, shelter, warmth, sex, sleep. The things that we need to survive. All animals are motivated by these needs. If we are hungry we will want to eat, if we are thirsty, we will want to drink.
- 2. Safety needs** - protection from elements, security, order, law, stability, freedom from fear. Not having these needs met can lead to stress and anxiety and even to aggressive responses in an effort to protect ourselves
- 3. Love and belongingness needs** - friendship, intimacy, trust and acceptance, receiving and giving affection and love. Affiliating, being part of a group (family, friends, work). The need for us to communicate with others and interact with others. If this need isn't met we can become depressed and anxious. The same is true of animals.
- 4. Esteem needs** - which Maslow classified into two categories: (i) esteem for oneself (dignity, achievement, mastery, independence) and (ii) the desire for reputation or respect from others (e.g. status, prestige).
- 5. Self-actualization needs** - realizing personal potential, self-fulfillment, seeking personal growth and peak experiences.



It is important to note that Maslow's (1943, 1954) five stage model has been expanded to include cognitive and aesthetic needs (Maslow, 1970a) and later transcendence needs (Maslow, 1970b) as follows:

1. Biological and physiological needs

2. Safety needs

3. Love and belongingness needs

4. Esteem needs

5. Cognitive needs - knowledge and understanding, curiosity, exploration, need for meaning and predictability. The need to understand and a desire to know things.

6. Aesthetic needs - appreciation and search for beauty, balance, form, etc.

7. Self-actualization needs

8. Transcendence needs - A person is motivated by values which transcend beyond the personal self. e.g. mystical experiences and certain experiences with nature, aesthetic experiences, sexual experiences, service to others, the pursuit of science, a religious faith etc. (McLeod, 2017)

Why is Maslow's hierarchy of needs theory important? It has made a big impact on how we teach and manage our students in school. We know that behaviour is a response to the environment but Maslow's hierarchy also looks at the physical, emotional, social and intellectual needs and how they impact learning. The hierarchy also clearly shows us that before an individual's cognitive needs can be met, we must fulfil the basic physiological needs. I often tell my clients that although we want to use food as reinforcement that does not mean that I want anyone to not feed their dog. A hungry learner will find it very difficult to focus on learning! I also believe we should show our learners, both human and canine, that they are valued and respected and ensure we work with them in a safe and supportive environment. We need to meet the *esteem* needs of all our students so that they can quickly progress with their learning!

The [Hierarchy of Dog Needs](#) adapted from Maslow's Hierarchy of Needs by Pet Professional Guild member, Linda Michaels, is a hierarchical model of wellness and behavior modification in which first we meet our dogs' biological, emotional and social needs and, once these foundational needs have been met, we use management, antecedent modification, positive and differential reinforcement, counter-conditioning and desensitization to modify behavior. Although not a hierarchy, before I get back to my *Hierarchy of Rewards*, I would like to mention Brambell's *Five Freedoms*, which put responsibility on the animal care taker to make sure they provide animals with a good welfare environment. I learned about the Five Freedoms and other animal welfare frameworks as part of my Animal Behaviour and Welfare course, University of Edinburgh.



In 1965, the UK government commissioned an investigation, led by Professor Roger Brambell, into the welfare of intensively farmed animals. The Brambell Report stated that: "An animal should at least have sufficient freedom of movement to be able without difficulty, to turn round, groom itself, get up, lie down and stretch its limbs". This short recommendation became known as Brambell's Five Freedoms. Because of the report, the Farm Animal Welfare Advisory Committee was created to monitor the livestock production sector. In July 1979, this was replaced by the Farm Animal Welfare Council, and by the end of that year, the five freedoms had been codified into the recognizable list format. Although developed for farm animals, Brambell's Five Freedoms can be adapted to pets.

The Five Freedoms are:

- **Freedom from Hunger and Thirst**
By ready access to fresh water and diet to maintain health and vigor.
- **Freedom from Discomfort**
By providing an appropriate environment including shelter and a comfortable resting area.
- **Freedom from Pain, Injury or Disease**
By prevention or rapid diagnosis and treatment.
- **Freedom to Display Natural Behavior**
By providing sufficient space, proper facilities and company of the animal's own kind.
- **Freedom from Fear and Distress**
By ensuring conditions and treatment which avoid mental suffering.

In addition to Brambell's Five Freedoms other animal welfare frameworks such as the Duty of Care Concept need to be foremost in our minds when caring for and working with any animal. The Duty of Care Concept focuses on providing animals with a safe happy environment which they can enjoy and encourages legal responsibility for those animals.

Now back to *Bryn Hierarchy of Rewards* (Stapleton-Frappell, 2013) If you have read everything above, you will understand that before beginning any training, the trainer should make sure that the learner's basic needs are met. The trainer can then make use of both primary and secondary reinforcers but must bear in mind that the 'value' will be ascertained by the recipient and not the provider as, although I use the name *Hierarchy of Rewards*, I am referring to a hierarchy of positive reinforcement consequences.

Whether teaching Bryn or any other learner a new behavior, or reinforcing behaviors that have previously been taught, I use that learner's own personal 'hierarchy of rewards'. Each individual's hierarchy includes lower 'value' reinforcers which are consequence stimuli that will serve to reinforce simple known behaviors in that individual's home environment or other non-distracting environments; medium 'value' reinforcers which will serve to reinforce slightly more difficult behaviors or behaviors in slightly more demanding environments, and finally, high 'value' reinforcers - those reinforcers that are at the 'top of the tree', the real 'top guns' that we use to reinforce more demanding behaviors and behaviors in environments where there are a lot of competing stimuli.

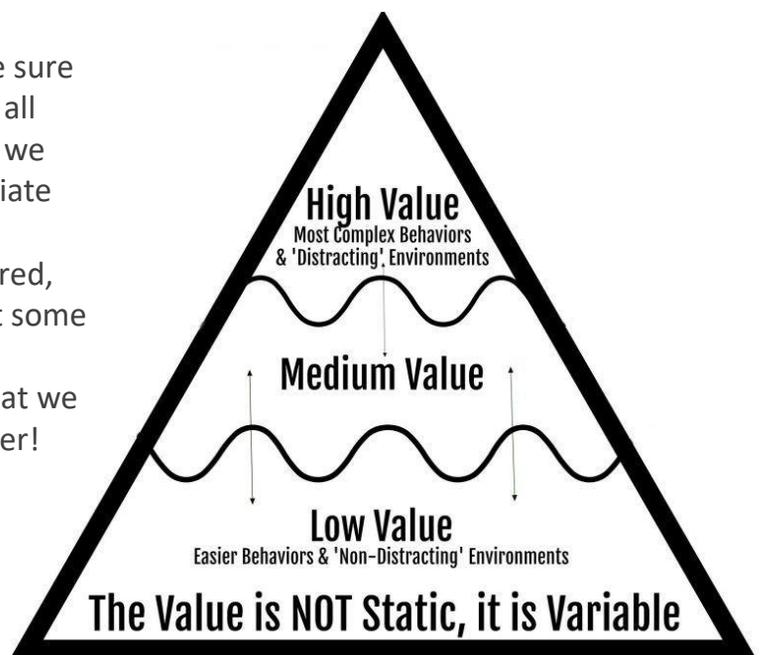


My go-to reinforcer when teaching a new behavior or when I need lots of repetitions is always food - small pieces of tasty, easy to chew and easy to swallow food – as I can deliver it quickly and maintain a high rate of reinforcement. It is also more effective to use smaller reinforcements more frequently rather than large reinforcements less often. However, I also make good use of 'non-food' items, which include everything from balls to tug toys to life rewards - access to things my learner wants, such as going outside, sniffing a patch of grass, greeting someone... Whether using food or non-food reinforcers, primary or secondary reinforcers, one thing is certain - reinforcers are not all equal and the 'value' of an individual reinforcer is not static.

The 'value' to the learner will change depending on such factors as:

- The behaviors, as determined by the animal's ability to do them and its biological predisposition to behave in certain ways, are easier or more difficult to reinforce. Behavior that depends on smooth muscles and glands is harder to reinforce than is behavior that depends on skeletal muscles. (Chance, Learning and Behavior, 2013)
- The individual's preferences
- Previous learning history
- The Setting Events and Motivating Operations

There are variables affecting reinforcement and affecting the value of each reinforcer at any given time, in different environments and with different individuals. We also need to bear in mind that if we use the higher 'value' reinforcers too frequently for easy behaviors in non-distracting environments, we could find that not only will our learner no longer be motivated to 'work' for lower value reinforcers, but also that we dilute the value of those reinforcers that were previously at the top of the *Hierarchy*, making them less effective in more demanding situations or with more demanding behaviors. We should make sure that we have a variety of reinforcers on all levels of our learner's *Hierarchy* so that we have something to call upon of appropriate value in all situations. Varying the reinforcement consequence that is offered, will also help to overcome satiation – at some point, we have all eaten enough of that delicious cake but that doesn't mean that we would say no to an ice-cold bottle of beer!



Although each individual will have their own *Hierarchy of Rewards*, neither Bryn nor any other learner's *Hierarchy of Rewards* is static. What works as a reinforcer one day may be of little interest to the same learner the next day.

If Bryn were reasonably hungry and we were working in a non-distracting environment, he would probably find kibble (dry dog food) to be of sufficient 'value' and it would serve as an adequate reinforcement consequence. If, however, we were to try and do that same behavior in a more distracting environment, at a greater distance or perhaps when Bryn had just eaten, then the kibble would have very little, if any 'value' and would not serve to positively reinforce a behavior. If Bryn were in a playful mood then his tug toy would have a much higher value than if he were tired and ready for bed.

The opportunity to sniff a nice patch of grass might serve to reinforce the behavior of coming close to me on a nice summer's evening but on a dark and wet winter's night, the opposite would be true – If I wanted Bryn to leave my side and go over to a piece of smelly grass, then it might be returning to my side and the protection of my umbrella that would serve as a reinforcer but maybe even that would not be of high enough 'value' and he would simply decide not to carry out the behavior. Perhaps performing 'send-aways' in the rain, calls for roast chicken?