DURATION

training strategies and how to develop duration in the clicker trained horse

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It is common for new clicker trainers to have questions about duration and confusion about how to build it. Since these issues come up again and again on the clicker lists, I thought it would be practical to have an article listing all the duration building strategies. But in the process of organizing them, I found myself thinking a lot about how I train and use duration, and how interwoven it is into all the training I do. There are so many little ways in which horses learn about duration, and so many ways to think about duration. So the article grew and grew as I tried to weave together a picture of the training process. I hope that readers will be able to get some practical advice from the training strategies and examples. I also hope that they will end up with a better understanding of how clicker training can create a great partnership between you and your horse.

This is a long article. I suggest that you read it once to get the general idea. Then you might want to just concentrate on the sections that are relevant to where you are in your training. You can skip directly to the individual sections which are:

WHEN TO TRAIN FOR DURATION
HOW TO TRAIN FOR DURATION
ACTIVELY TRAINING FOR DURATION: STRATEGIES AND TIPS
AN EXAMPLE OF ACTIVELY TRAINING FOR DURATION
INDIRECTLY TRAINING FOR DURATION
TRAINING FOR DURATION IN MOVEMENT: STRATEGIES AND TIPS
RETHINKING MY GOALS FOR TRAINING DURATION

THE TRAINING PROCESS

Before I write specifically about duration, I want to outline the training progression for using clicker training. This training progression may be different than the one you are used to following, and I think it is important to recognize differences in how many of us have been taught to view training. Here are my steps:

Step 1: Teaching your horse different behaviors. In most cases I will go through a period where I am teaching the horse new behaviors at a rapid rate. This is the time when I am teaching the horse that there are many ways to earn reinforcement. Alexandra Kurland calls this "filling your horse's dance card." I love this step. It is so much fun to see the horses really learning to think and this is when a lot of horses blossom. In this stage, my horse is offering behaviors based on physical and environmental cues that are part of the shaping process. So, I might have a specific target that I have the horse touch, but I have not added the verbal cue "touch" yet. Or my horse might have learned that backing is always rewarded when you enter his stall, but I don't have a specific command for backing.

Step 2: Getting behaviors on cue. This is teaching stimulus control. A behavior is under stimulus control when it is offered on cue, and is not offered in the absence of the cue. The first part of this usually evolves naturally as I start to add cues to known behaviors. I find putting behavior on cue to be quite easy. I find it much harder to ignore it when offered off cue, because sometimes the horse will offer a really good effort when I am not asking. I don't think you have to get total stimulus control to go on to the next step.

Step 3: Adding duration. The most basic definition for duration is asking the horse to maintain a behavior for a longer period of time. Steps 1 and 2 have set you up for teaching a horse to maintain the same behavior for a longer period of time. In step 1, I taught my horse to stand on a mat. In step 2, I taught my horse that he should only do it when I asked. In step 3, I am going to train him to stand on it for a specific amount of time.

Step 4: Adding quality and polishing the behavior. I go back and forth between steps 3 and 4 as a behavior develops. I will also go back and forth between steps 3 and 4 as I "proof" the behavior by adding distractions and practicing it in different places. Sometimes I even have to go back to step 2 if I am now developing variations on previous behaviors, or if my horse gets really stuck.

You can have a horse that is at step 2 for some behaviors and step 3 for others. The reason I have written out the progression is so that you can see how you will go back and forth along this progression as you train different behaviors. I can have a completed behavior that has different components that I have trained for different levels of duration. My horse can stand on a mat for 2 minutes, keep his ears forward for 1 minute and lift his front leg for 10 seconds.

WHEN TO TRAIN FOR DURATION

According to the training progression I presented above, I can start training for duration as soon as I have a behavior on cue. By that point, I have actually already introduced the idea of duration to my horse because the first steps toward building duration evolve naturally as I am shaping the behavior. There will be times when I withhold the click while waiting for the next detail in building the behavior. Horses do learn to work for longer periods between clicks as they figure out what I am asking.

But there is a point in training many of the foundation behaviors when I want them to maintain a basic behavior for longer. Instead of adding to the quality of the behavior as the criteria to earn a click, I start using the time for which they hold the position as the criteria. This might be the case if I needed duration for the following reasons:

I need duration to perform a task (foot care, tying, standing quietly, etc...)
I think I am treating too often and I want to be able to have the horse go longer between clicks.

My horse is showing frustration and emotional fallout and I want him to learn emotional control.

My horse is showing frustration and emotional fallout and I want him to learn emotional control and patience

I find that some people are anxious to work on duration before they are ready. It takes new clicker trainers time to develop the patience and willingness to work at the horse's pace, both of which are necessary qualities for successful clicker training. When I first started clicker training, I didn't like that I had to carry a clicker and carrots with me all the time. It seemed ok for some behaviors, but I was anxious to be able to train Rosie to maintain a behavior pattern for a while, so that I didn't have to click and treat as often. Once I clicked her for standing still, I wanted her to keep standing still, instead of offering to do other things.

This is similar to when you talk to people and they understand about clicker training, but keep asking, "ok it sounds good, but when do you stop clicking and treating." They are willing to click and treat to teach the behavior, but are really anxious to be able to discontinue it as soon as they think the horse knows what is expected. They often think the horse should know something before it really does, and they expect that if the horse knows how to stand for one minute, it should be able to stand for 10. I think some of this comes from a mindset that once the horse understands the cue and it is under stimulus control, the training is done.

But horses have to learn about duration. Sometimes when we first train duration, we don't realize that it is significantly different than the kinds of behaviors we have previously been reinforcing. Up until this time I have been teaching my horse to actively think and offer new behaviors.. He might be very

puzzled if I now ask him to do something and don't reinforce right away. Some horses will be quick to offer alternate behaviors and it is important to recognize that they are just trying to figure out the new game. If the horse seems to get very confused and throw a lot of behaviors at me, then I will go back and review the cues to make sure that there is no confusion on that part. The good news is that once I train duration in several behaviors, my horse will start to understand that sometimes I just want him to keep doing what he is doing. Even if he loses his concentration for a moment, he will return to the last reinforced behavior instead of trying something else.

If you are reading this and thinking about training duration, you can check to see if you are ready. Here are a few questions I ask myself before training duration with a new horse:

- 1. Does the horse understand about cues (step 2)? Does he understand the cue for the behavior you want to train for duration? I need to make sure he is not confusing it with another behavior that has a similar cue. If he gets two behaviors mixed up, he is either not ready for duration, or I need to pick a different behavior to use to train duration.
- 2. Will the horse keep offering behaviors if he is not clicked or does he shut down? If the horse tends to shut down (stop offering behaviors, stare off into space, zone out..), then I need to keep his reinforcement level high until he gets braver. This is common in crossover horses (those started with traditional methods) and I am very careful to keep them actively focused on me by keeping efforts short and reinforcing a lot.
- 3. What does the horse do when he gets frustrated? If he gets aggressive or unsafe, then I want to keep his reinforcement level high and extend duration very slowly. I can still do it, but I need to be careful to monitor his body language. This type of horse might be a better candidate for indirectly training for duration which I will describe later.
- 4. Is he offering the behavior on his own when I ask for it several times in a row? This is a nice check I like to do. If I am working on head lowering, I will ask for head lowering several times and click/reward. Then I will hesitate a moment and see if the horse offers it again, before I ask. If he does, then he clearly understands the behavior I am working on and I am confident I can start working on duration.
- 5. Does he correct himself if he stops performing the behavior before the click and misses his reinforcement? If I am working on head lowering, I ask and reinforce a number of times in a row, slightly varying the amount of time before I click. At some point, the horse will probably lift his head before I click and miss his reinforcement. If he puts his head back down before I can ask, then I know he is ready for work on duration. Alexandra Kurland says that one way you can tell your horse is ready for new criteria is when the horse is already offering it. So another indication that the horse is ready would be if I click and the horse doesn't bother to bring his head up, or is slow to bring it up. Then I know he is ok with keeping it down there longer.

In addition, when I am training for duration, I am very careful to monitor how my horse is doing. Is he getting more stressed by extending the time? Is he getting slower to respond as his reinforcement rate drops? What does he do when I ask again if he missed a click? If he offers an alternate behavior, or gets frustrated, then I might need to back up and reinforce shorter efforts. These are signs that I asked for too much and I need to go back and do some more basic work.

However, let's assume that you have some behaviors on cue and you want to be able to extend the time the horse performs a specific behavior without having to click every few seconds. Or maybe you are in a situation where you need duration for foot handling or standing for the vet, farrier etc... I am going to give you some strategies for training duration, as well as explain how I view duration and how this has been helpful to me in trying to decide how to train it.

As with most aspects of clicker training, there are many ways to train for duration, but I have found it useful to think about two different ways to train it. They are:

- 1. ACTIVELY TRAINING FOR DURATION by choosing a behavior and reinforcing the horse for maintaining the behavior for longer periods of time. I almost always start here. But depending upon the situation, I will eventually move to:
 - 2. INDIRECTLY TRAINING FOR DURATION by reinforcing it as I add additional layers to a behavior.

Some behaviors will naturally end up being trained using only one of these strategies, but I can easily move back and forth between these two strategies as needed. I like to start teaching a horse about duration by actively training for it. This starts to educate the horse about the variability of the clicker and how he might get clicked more often at some times than others. It also allows me to evaluate what I want to train next.

With some behaviors, I can get the type and quality of duration I want just by actively training for it. With other behaviors, I will switch to indirectly training for duration. With some horses, I might move to indirectly training for duration if the horse seems to get frustrated when I actively train for duration. I can always return to actively training for duration later when the horse understands more about how he can earn reinforcement and has developed more confidence.

I will also add that I think we can talk about the quality of duration. By quality of duration, I mean that the horse has developed a level of mental calmness and body control that he can effortlessly maintain certain behaviors for long periods of time. Duration that has been built over consistent training for a long period of time (indirectly training for duration) is going to be different physically and also different mentally from duration that is actively built through extending the time without regard to other criteria. Horses who really know what is expected have a certain quiet confidence to them, as opposed to a horse that is using real effort to maintain a behavior. I am not talking about the horse being submissive, but about the horse being peaceful and confident in his responsibilities and his job. Building quality duration takes time and you should not underestimate the power of slowly and consistently working away at shaping a behavior over a long period of time.

So far, I have been talking about duration within a behavior. As your horse gets more advanced, you can also think about training duration where you are referring to duration as the time between clicks. This might involve the horse performing the same behavior multiple times (touching a target 3 times) or multiple behaviors (touching 3 different targets) before the horse earns a click. In some cases, you will be training predictable behavior chains, but I can also talk about training duration to perform related behaviors that are not always performed in the same sequence. This would be a more advanced way of looking at duration, but it is worth keeping in mind because for a lot of behaviors, this is where we are headed.

ACTIVELY TRAINING FOR DURATION: STRATEGIES AND TIPS

I use this method for building longer duration in the foundation behaviors such as head lowering, standing on a mat, and stand quietly while the grownups are talking (these are all exercises from Alexandra Kurland's Step-by-step book). Building duration this way is a great way to get my horse used to the idea that I might want something for longer than he has been previously offering. This method is the most practical if you need to build duration quickly and it also allows me to see what kind of variation there is within the behavior. I also think there is value in teaching the horse that sometimes they just need to keep going.

Teaching duration this way teaches both horses and trainers about emotional control. I find that people can easily get frustrated when working on duration this way. It is REALLY IMPORTANT that you are not forcing the horse or making it unpleasant for the horse to go for longer duration. Remember, it is the

horse's choice. My job as a trainer is to set it up so the horse is motivated and wants to earn that click even if it means working for longer.

Here are some training tips. Many of these are ones I originally learned from the clickryder list on yahoo groups, so thanks to everyone there. If you are interested in additional tips specific to training for duration in movement, be sure to read the section titled "TRAINING FOR DURATION IN MOVEMENT" which is later in this article.

- 1. Start with a behavior the horse knows well that has simple, clear criteria for clicking. The foundation exercises are good for this (standing on a mat, head lowering, standing quietly). I think it helps to start with a behavior that has a definite physical cue. For example, I prefer to work on head lowering when my horse knows head lowering from a rein cue instead of just a verbal cue or as a default behavior from free shaping. I want to be able to clearly and quickly ask again if my horse ends the behavior before I click. Remember the criteria is head down. I am not paying attention to the quality of the head down, just how long the horse keeps his head down and his feet still.
- **2. Start where the horse can be successful.** If horse will only hold his head down for 3 seconds, click after 2. Once he is comfortable with 2 seconds, you can go for more. However, you will want to vary the time before you click so that the exercise does not just get harder and harder. So if your horse will hold his head down for 5 seconds and you are going for 10, you will click at click at 2, 3, 2, 4, 5, 6, 4, 6, 7, 2, etc. If you are paying attention, you will get a sense of how much you can ask for and when you can move the average time up.
- **3. Count out loud**. Your horse will learn that while you are counting, he just needs to just maintain his position.
- **4. Use a keep going signal (the counting can act as one).** A keep going signal is a specific marker (word, sound) that tells your horse he is on the right track. Most people use praise as a keep going signal without consciously deciding to do so, and most horses pick up on it. Some people have a specific marker that they teach the horse which tells the horse "keep going, the click is coming."
- **5. "Blitz-clicking."** This is the name someone on clickryder gave to rapid reinforcement (clicking and treating) as fast as you can feed it, to encourage the horse to maintain his position. This works really well for mat work, head lowering, and the grown-ups are talking. It also works very well for getting a horse to hold his foot up, if you have a helper.
- **6.** Use food delivery to help out. If I am working on head lowering, I will feed the horse with his head low. I allow him to eat anywhere he wants, but I don't want him to think he has to pick his head up to get his treat. I want him to think that good things happen if he keeps his head low.
- 7. Watch out for horses creating chains. Some horses will figure out that if they "misbehave" and you ask for the correct behavior, they will get clicked more often than if they just maintain the correct behavior. If this happens, I find it helpful to just start over. So, if I am building duration standing on the mat and my horse paws, I might find that I end up clicking more for the horse standing quietly after he has just pawed, than for standing for increasingly long periods of time. If this is happening, then I will make the horse start the exercise over. In this case, I would take the horse off the mat and then bring him back on to the mat, being careful to click before he started pawing. Eventually the horse will figure out that it is easier to stand on the mat and get rewarded a lot for standing, than it is to have to keep getting off and back on the mat every time he paws.

However, I would like to add to this, that I do often click the horse for self-correcting. I like to see the horse make a conscious effort to get back to the correct behavior and I will reward this. Just make sure that the horse is not interpreting the reinforcement from this to mean he can train you into clicking him for shorter durations after he gets distracted.

- **8.** Some people have found it helpful to teach a horse a "hold" command, meaning that the horse is to hold its position until you give another request.
- **9. I have found it helpful to adjust the reward to relate to the duration.** So when I first train head down, I click and give 1 carrot piece for head down briefly. At the point at which I start to work on extending the time, I will feed the horse at the same rate as the initial 1 carrot/1 second of head down. So if the horse has his head down for 3 seconds, I give 3 carrots, 5 seconds, I give 5 etc.. This is not a rigid schedule and I will adjust my reward based on other factors, but I do try to show the horse that he is not missing out on anything by having to go longer before his reward. I am also generous with jackpots for longer efforts. Over time, if my horse becomes really comfortable with his head down for 10 seconds, I will readjust my "pay rate."
- **10. Another strategy for teaching duration is explained in Alex's 300 peck pigeon post.** You can find this in her book Riding with the Clicker or at

.. This post explains one method Alexandra used to teach her horse about duration. It is a patterned exercise which extends the required time before each click by one increment for each effort. When you read it, you will see that it does not follow some of the same guidelines listed above. Alexandra experimented with it as an exercise in duration and found that it created big changes in the horse's mental attitude, not because they could now do one behavior for long periods of time, but because they learned emotional control and to be responsible for certain aspects of their own behavior. It works best if you choose a simple behavior that the horse knows really well.

- **11. Watch out for patterns in your own clicking.** Horses are very quick to pick up on patterns so make sure you are not being too predictable. One way to get around this is to click for times that are generated randomly around your horse's current level of performance. So, if your horse can do something for 5 seconds, click for 4,2, 5, 3, 6, 5,1, 6, etc... Some people even use random number generators to make sure the horse can't predict the needed duration for the next click.
- **12. Keep score**, as explained in this post to clickryder by Peggy Ferdinand (thanks Peggy!). She explains how to count successful efforts to track your horse's progress and help you decide when your horse has improved enough to make the criteria stricter. In her example, the trainer was rewarding the horse for keeping his head straight in front of him for 2 seconds. The horse was getting his treats in a bucket. If he was successful, she clicked and she put the treat in his bucket. If he missed his click, she put the treat in a different bucket. At the end of the trials, she just has to count the missed treats to know how he did. This can be a good strategy if you feel your horse is getting frustrated and you might be moving too fast, or if you just want a good way to track progress.

She writes:

"To do this you are going to use random increases and decreases of time."

"(This method will have you switching ranges as the horse's ability to do the behavior for periods of time. If you visualize someone putting their thumbs on a piano key, and their pinkies on another key five or eight notes away from the "thumb" note, and then moving their hands from the low end to the high end of the keyboard, that's how your ranges will be moving.)"

"You find the ends of your first range (in this beginning case, 0 and 2. The midpoint is 1. You'll create a list of ten numerals ranging from 0 to 2, that average to 1. (Math required: 1, 0, 1, 2, 1, 1, 1, 2, 0, 1: average is 1.) Count yourself out 10 treats, and get your bucket or cat dish or whatever it's going to be, ready to hand. Put a little notebook and pencil in your pocket. Wally is behind the fence, maybe, or tied to a tree. And you stand there, and click every time his head and neck are straight out in front of him, AND he put them back in position before you could count to 2 after he moved them out of position the last time. When you click, one of your ten treats lands in the bucket/dish/whatever. If he doesn't move it back into position before you count to 2, you set one treat aside somewhere where he can't reach it but you can

find it easily at the end."

"Now you can choose to end the session there, or do another one. Write down X (the number of times he got clicked and treated)/10 in your notebook. If he put his head back in place 9 times within 2 seconds, but didn't once, you record 9/10."

"If you decide to do another one, check your fraction. If he got 8/10 without missing two in a row, 9/10, or 10/10, he is ready to attempt a higher range. Move the range two seconds higher---at this level of difficulty you could spread out a bit (so, now you might have a midpoint of 3, and ends of 1 and 5 seconds.) Make up 10 random numbers in that range that average to 3. Repeat your "head straight in front of you" training session as above. He gets a click if he puts his head straight within 2 seconds of moving it away from straight (if he is tending to just leave it straight, have him take his treat from the bucket off to one side, and start counting from when his head is by the bucket.) Anytime he doesn't move right back into position, you give the treat to the "misses" cache. At the end, record the number of successes over the number of reps. 8/10 (if he hasn't missed two in a row) is enough to progress to a new range. Less than that, you repeat the set till he DOES get at least 8/10."

"When the range is at 15-17-19, you can start increasing by 5 seconds at a time. If at any point the behavior starts to fall apart (i.e., he displays behaviors you don't want such as pinned ears, grabby mouth, whatever) simply back up to the prior level and redo that one until he's happy again. You can scramble your numbers, or create new sets, whatever, at that same level; you can also get variations in difficulty within a range by tweaking the ratio of lower numbers to higher ones in the range, too, if he seems to get stuck at any point."

"Keep doing this until he will stand happily for an hour or more at a time, and you can use this method for ANYTHING that requires Wally to do something for longer and longer (standing on a mat, touching a target, whatever), OR for more and more distance (in which case you count, not seconds but steps---or some other convenient measure of distance in whatever the setting is)."

These strategies can be combined in many different ways. You may find that you use different strategies for different behaviors and even to teach the same behaviors to different horses. The idea is to come up with a way that is clear to the horse and allows you to train him to have the duration you want in his behavior. In addition to this end goal, you will find that training for duration has many side benefits. When my horse learns to stand on a mat for 5 minutes, he learns more than just that behavior. He benefits both physically and mentally from the exercise because duration has several components, and teaches the horse some great things as he learns the exercise. Here are some things that your horse will learn:

performing the current behavior for an extended time (teaches your horse to be responsible for certain aspects of his own behavior which often leads to emotional stability)

waiting for the next cue (patience and focus) working longer between clicks (confidence and resilience)

AN EXAMPLE OF ACTIVELY TRAINING FOR DURATION

To illustrate how these strategies could be used, I am going to work through how I would train duration in foot handling. Clicker training is a great way to teach a horses to allow me to handle his feet. By marking each little step in the progression, it is quite easy to use clicker training to teach the horse to shift his weight and allow me to pick up his foot. Each horse will require me to break the training down into a different number of steps, depending upon the horse's comfort level, but each step leads to the next one in a behavior that the horse already knows. My horse knows how to pick up his foot. I just need to show him that is what I want and make sure he is comfortable with it. In it's most basic form, the steps are 1:) the horse shifts his weight, 2:) he bends his knee or hock and lifts his leg, 3:) he lifts it higher, 4:) he allows you to hold it up in your hand.

My horse is doing great, but now I want the horse to allow me to hold his foot up for a longer period of time while I do something to it (clean it, wrap it...). This step in the behavior chain needs duration. It is important to recognize that up until that point, each new step that I have been reinforcing was different than the previous one. Now I am asking for something significantly different. I want the horse to hold his foot still and wait. I think that sometimes people and horses get stuck here because they don't how different this step is for the horse. Horses pick up their feet all the time, but they don't normally stand around holding up their feet so I am training a new behavior. It is not uncommon for the horse to want to put his foot right back down so he can start the sequence again, or to get unbalanced and need to put it down. I am using this example because I want you to recognize that duration is really a new concept for the horse in this situation, and I can't assume that the horse knows what I want. It is easy to get so focused on the end goal of getting the foot up, that we don't realize we need to put just as much training time into making sure the horse understands and is able to keep the foot up.

<u>Teaching a horse to hold his foot up:</u> how to use different strategies to teach this behavior. I have already trained the horse to allow me to pick up his foot.

- 1. Ask the horse to lift his foot, click and put down, repeat a few times
- 2. Ask the horse to lift his foot, hold for 1 second, click and put down, repeat a few times until the horse is comfortable with his foot up briefly.
- 3. Ask the horse to lift his foot and hold for 2 seconds, use praise or counting to encourage him. The first time he does it well, I might feed a better treat, and or let him have a little break with some pats and encouragement...I am giving him a moment of thinking time.
 - 4. Ask the horse to lift his foot and put it down right away, click and treat
- 5. Ask the horse to lift his foot and hold for 2 seconds, use praise or counting to encourage him. If I have a helper, she could "blitz-click' him while he has his foot up. She would want to feed him in a way that helps him hold his balance.

The whole time I am working on this, I am looking for opportunities to reinforce him for other responses I might want when I am working on his feet. I have stated that when working on duration, I am not asking for additional details, just extending the time. This is the mindset I need when I start, but as soon as I get a little duration, I want to be thinking ahead. Part of training is being receptive to the next step in the training process. Even if my focus at the moment is on clicking for a specific amount of time, I try to reinforce new pieces that my horse offers. I can do this because the horse is giving me constant feedback and if I click too many new details, I will lose the original behavior (in this case, holding the foot up). That's ok because with clicker training, I can always go back and reinforce the original criteria to get the horse back on track.

Additional details I might add are clicking him if he allows me to wiggle his foot a bit while it is up, without snatching it away. This helps with his balance and starts to teach him that I might need to move his foot while he has it up. Also, sometimes I give the horse some more obvious physical clues while I am teaching this. If my goal is to clean out the foot, I might tap a little with the hoof pick (not trying to do anything, but just getting him used to the idea that I might do it). This gets him used to the hoof pick and he will learn that while I am scraping, he needs to keep his foot up. The foot scraping can become a kind of keep going signal for him.

I will also look for opportunities to teach him about how to nicely place his foot back down. Some horses can get in the habit of snatching the foot away as soon as I click. Once the horse understands about holding his foot up for 5 seconds, I will sometimes put it back down after 2 and click him for allowing me to put it down nicely. It is important to balance what I click so that the horse does not snatch

his foot away in anticipation of the click. But eventually I will want to click for the completion of the sequence (pick foot up, hold, put foot down) so I will introduce this idea when I think he is ready.

Actively training for duration is a great way to get started in teaching your horse about duration. I think I always go through a little phase of training actively for duration, but as soon as I find I am looking for additional details and quality, then I am ready for the next step, which is <u>indirectly training for duration</u>. Actually I usually just end up there whether I consciously plan it or not. In the foot handling example about, at some point my clicks shifted from being predominantly for holding the foot up and stationary to being clicks for other details. That is what indirectly training for duration is all about. While I was clicking for correct responses within the behavior of holding the foot up, I was also reinforcing holding the foot up.

INDIRECTLY TRAINING FOR DURATION

In clicker training, I focus on individual pieces as I build behaviors. This can lead to a pendulum effect in training where I overemphasize one component of a final behavior and then have to go back and counterbalance that with training the behavior that restores the balance. This is a natural part of the training process, and when I spend a lot of time training for quality (adding refinement), I find that I can lose duration. The horse gets used to working in short sessions and expects to be clicked on a high reinforcement schedule. In this case, working on quality led to a loss of duration. But in the example of hoof handling, working on quality improved duration. So, which is true? The complicated part is that they can both happen and it all depends upon what and when you click, and where you are in the training process.

That is the reason for this section. If I hadn't written it, some of you would be getting great duration while building quality and some of you would be getting no duration. In either case, you might not understand how you could adjust your training or how to repeat your training with another horse, or another behavior to get the results you wanted. I think it is important to understand how duration can be reinforced while building quality. I also know that sometimes new trainers and horses get frustrated trying to actively build duration. I wanted them to be aware that you can get duration without specifically setting large pieces of training time aside to train it.

In my situation, I have found that there are few times when I really need to have a horse perform the same behavior for long periods of time without getting clicked. If you asked me, I would say that I do not spend a lot of time actively training for duration. But, guess what? I have some behaviors where I can get very long duration. Why is this? I think it is because good training creates duration. As I improve and refine my horse's behavior, I am indirectly building duration. As we saw in the example of teaching a horse to hold up his foot, the ability to hold his foot up for longer periods of time just evolved out of the training process.

Duration can evolve out of the training process in several ways. I am going to write about three ways that I indirectly build duration. These are:

repetition reinforcing underlying default behaviors creating clickable components

In addition to being used separately. These three ways build upon each other so "reinforcing underlying default behaviors" uses repetition and "creating clickable components" uses both repetition and underlying default behaviors.

REPETITION

Sometimes it comes from the repetition that accompanies working on quality. If I ask my horse to give at the jaw 50 times in a row, he will eventually start to keep his jaw soft between gives. This leads to

duration in keeping his jaw soft. If I am aware that I can build duration through these repetitions, I can reinforce it by the timing of my click. Therefore, when training indirectly for duration, it can look a lot like I am just adding quality to an existing behavior, but if I am aware that there are opportunities to reinforce duration as I build behaviors, my training will be more effective.

REINFORCING UNDERLYING DEFAULT BEHAVIORS

One way to look at duration is that it evolves as a result of clear and consistent reinforcement for the same behavior many times and in many different situations. This is the power of repetition but not the kind of repetition that is just asking for 100 gives in a row. If I look at the behaviors for which I have duration, I find that they have a common foundation of default behaviors.

I learned about default behaviors from Alexandra Kurland. They are behaviors that my horse offers in the absence of a direct request from me. You can think of them as automatic behaviors that my horses have learned to offer in certain situations. Examples are backing when I enter a stall, posing on the crossties, walking in head down when we first go to the ring, ears forward when I walk toward her. You can think about default behaviors at complete units (head down, stand on mat, pose...) or as components that you like to add on to many other behaviors (ears forward, energy, softness...).

My horse Willy will stand quietly for long periods of time. Standing quietly is a default behavior for him and it has been reinforced in multiple exercises including head down, mat work, stand quietly while the grownups are talking, and as he learned various tricks that required him to stand still. Even though I was clicking for different details in these situations, standing quietly was being reinforced along with the new behavior I was working on. He also has learned to incorporate the pose into all his groundwork, because I reinforced it in many different groundwork exercises, even when I was not specifically working on the pose.

The great thing about training duration this way is that it is not frustrating or boring to the horse or trainer because it is not about practicing the same thing over and over. I am not saying that I have not spent time teaching my horses that they might need to hold their heads down for 10 seconds, because I have. What I am saying is that once the horse has the basic concept that you might want something a bit longer, I find that I don't need to actively train for duration as much. In addition, once my horse has learned about duration in one exercise, it becomes easier to add duration in other exercises.

Once default behaviors have been reinforced enough, they can become seamlessly incorporated as components of other behaviors you are teaching your horse. They have been heavily reinforced and he will automatically offer them. They are also behaviors which I can expect him to maintain for longer periods of time without clicking and they are behaviors that I can build upon by adding other criteria (ears forward, stand on mat, move while posing etc...). By the way, traditionally trained horses have default behaviors too. It is just that most people are not taught to recognize them and take them for granted as part of the package of a trained horse. They don't acknowledge them until the horse stops offering them.

When I first train default behaviors, my main goal is to convince the horse that the desired default behavior is always the right answer in that situation. I want the horse to offer that one specific behavior in the absence of other cues. One way to help the horse understand this is if I ask for the default behavior right away in each situation where I want it. If I want my horse to offer head down as a default when I halt him while leading, then every time I halt, I will ask for head down before asking for anything else.

I can train different default behaviors to the same horse if they each have different environmental cues (usually this is location). An example would be that Rosie's default behavior is to back up when I enter her stall. Her default behavior on the cross ties is to stand with 4 feet on the ground and head level. I can work on both of these over the same period of time as long as I don't suddenly decide I want her to stand with her head level when I enter her stall. Later she will learn to read my body language and I can ask for

different default behaviors in similar situations, but the point of training a default behavior is to give your horse a guaranteed behavior that will earn a click (at least in the beginning).

As you train default behaviors, you will find that you are asking for them more times, both as individual behaviors and as underlying behaviors (components) of other behaviors you are training. And at some point, you could decide to train for longer duration using the strategies listed above in the <u>actively training for duration</u> section. The difference with these behaviors is that I have found I can make great progress in building duration by continuing to keep the efforts short, but changing the criteria for the click (adding quality).

So, for example, I start by teaching my horse to stand on the mat and I can get him to stand for 2 seconds. I want him to stand for 10. I have two choices. I can actively build duration by trying to lengthen the time he stands on the mat and get to 10 seconds. Or I can say 2 seconds is good, but now I want ears forward. I can ask him to stand on the mat and click for ear movement. What will happen is that in the process of waiting for the ears, the horse will end up standing on the mat for longer periods as I shape ears forward.

Once I get ears forward, I might now want the horse to stand square. Once I get that, I could add head straight forward. What I will discover as I continue along in this process, is that I now have a horse that will stand on his mat for long periods of time and I never had to actively train for duration. This is the same way I ended up with duration in foot handling by clicking for correct responses within the behavior of "foot up." In that example, the horse learned that "keep your foot up" was the default behavior for what to do once he had his foot off the ground and in my hand. This is what I mean by indirectly training for duration and I have to say that almost all my duration has been built this way.

In the above examples of adding additional criteria to mat work and foot handling, I could say that I am not training for duration at all, because I am specifically clicking for better efforts based on adding quality, not extending time. It is true that clicking for better efforts and adding refinement is how I shape behaviors all the time and I am not necessarily always building duration. But I can use this part of the shaping process to build duration in an underlying behavior, if I set that up as one of my goals. It is just a matter of how I set up the exercise. This brings us to:

CREATING CLICKABLE COMPONENTS

For example, I have taught my horse to lead on a slack rein walking to the field and he maintains the slack, but I am clicking him every 3 steps and it is 100 steps to the field. I would like to be able to walk to the field and just click him at the gate. I need to build duration into leading on a slack lead. I could actively train for duration at this point by increasing the number of steps before I click. And, It is true that I need duration, but I think that what I really want is for "a slack lead" to be an underlying default behavior that I can then add layers to, as needed. I want to strengthen the behavior of walking on a slack lead, but I can do that without just concentrating on time or number of steps.

I had already started the training process by reinforcing my horse for walking on a slack lead every 3 steps for a week going back and forth to the field. In the very beginning, when I am working on a new behavior, I will withhold the click a bit to see what the horse does, because this can give me some insight into what kinds of variations the horse has within that behavior, or what I might want to click for next. But in a situation such as leading to the field where I really want my horse to stay focused on me and I don't want to create any frustration, I am much more likely to click and reinforce many times and see what kind of variation I see in over various efforts. This is usually less frustrating for the horse than if I withhold the click to see the variation that shows up if I ask for the behavior for a longer period of time.

So, as I was clicking every 3 steps, I had also been making mental notes about other pieces I might need to add, and in what order. I will now start to select for the new criteria even though my horse is still working in short efforts. I think this keeps the horse's frustration level down because the reinforcement

rate is still high. This works very well with impatient horses and helps them learn to focus. Learning to focus leads to emotional stability which will help the horse later if I decide I want to go back to actively training for duration. What I often find is that I don't need to take that step because the duration is already there, built while I was refining the behavior.

To continue with my example, I have found that there are a lot of details in walking nicely to the field. I have to decide how I want the horse positioned and what other behaviors I might need to have available. I like my horses to lead so that their shoulders are out of my space and their heads are slightly toward me. With the greener horses, I will start by leading them so that they are almost in a shoulder-in bend. As their behavior improves, I will allow them to straighten and walk more forward as long as the "feeling' is of them moving out of my space. I want to be able to walk at their shoulder without them lagging behind or barging in front. So in this example, there are six clickable criteria (at my shoulder, head level with their withers, yielding their shoulder, flat footed walk, nose slightly toward me, slack in the line).

Even though I only have 3 steps on a slack lead, I am going to decide what my next criteria will be. This allows me to continue reinforcing as frequently. So, in my week, I might have discovered that my horse tends to crowd me with his shoulders. I will now walk to the field, clicking as often as I need to, to reinforce yielding his shoulders. One interesting thing that will happen is that in searching for the correct answer (yielding the shoulders), my horse will sometimes offer a better version of walking on a slack lead and you will see more self correcting. Click that! Or he might walk on a slack lead for longer. Click that!

My horse is showing me that he understands I want a slack lead. In the meantime, I am also clicking any time he yields his shoulders. At this point, I am asking him to yield his shoulders with my body position and a lead rope cue. This may sound confusing as you might think the horse won't know what I want because I am actively clicking for both components, but since I am clicking after a short period of keeping the lead slack OR at the moment when the horse first yields his shoulders, my horses seem to figure it out. In addition, these two behaviors are related. It is easier for the horse to yield his shoulder and walk on a slack lead than it is to do one but not the other. If my horse gets confused, I may have to have days when I heavily reinforce walking on a slack lead but as time passes, the horse will learn that he can do both.

If he is having difficulty with walking on a slack lead and yielding his shoulders and I feel he is just getting confused, I can clarify things by making the chance to earn a click dependent upon him performing a previously trained behavior. I can set it up so that walking on a slack lead means that horse has the opportunity to yield his shoulders. How does this work? I lead my horse out and he puts slack in the line (or keeps it in), so I ask him to yield his shoulders, click. If he then starts off without putting slack in, I ask for slack and click. Then I start again and see if he keeps the slack. If he does, then I will ask for the shoulders. My horse will quickly learn that if he doesn't walk on a slack lead, he doesn't get the opportunity to earn a click for moving his shoulders. This is an important point because clicker training can create such eager students that they skip over important steps. In many cases, it is important to get some components in a certain order and I need to be aware of how to help my horse follow the correct sequence.

Over time I will work away at my list of desired qualities in walking to the field and one day when I am walking out I will realize that my horse is now walking quietly next to me and I am just fine tuning. The horse understands the basic criteria for walking to the field and I can pick and choose which ones I want to reinforce on any given day. I did all this without actively training for duration beyond getting those first few steps. All I had to do was keep reinforcing the components to create the finished behavior.

On any given day, when I lead my horses out, there are about 4 or 5 things that I could click. If I am in a hurry I can just walk them to the field and jackpot them at the end. This is not even that necessary as they view going out as reinforcement, but I like to do it. Or, if I have time I can click for good moments when they are consciously offering a behavior or even do a little check to see if I have all the pieces I have trained. Can you stop on a verbal whoa? Can you bend around me and yield your shoulders? Can you straighten your head and neck if you get too wrapped around me? I like asking these questions

because it keeps the horse focused on me. And if something unusual happens like a dog jumping out, I know that my horse will respond to my adjustments because I have been practicing them whenever I walked him out. I now have a horse that will walk 100 steps to the field on a slack lead and I did it without systematically training by increasing the number of steps.

In line with the idea of keeping training fun and interesting, I think it is important to recognize that there are lots of little opportunities to play with duration as you work with your horses. I have a game I used to play with Rosie and Zan when they were younger. I called it the "stall cleaning game." I would go in to clean the stall and the resident horse would want to "help." Well, I still needed to clean the stall, so I would pick a behavior to reinforce. I didn't always pick the same behavior, but there were a limited number with some variations. This was all done with free shaping. I started this game because I was teaching Rosie to stand at her target. Rosie had an oil jug as a target and I had her touch it while I cleaned. But she loved to smash and bang it around She found this more reinforcing than waiting. I was a novice to clicker training and I didn't understand how to change this behavior so I decided to try something else.

I came up with a new game. I took the target away and just reinforced her for standing in that corner. Once she was good at that for a few days, I would reinforce her for something else. It might be as simple as parking my wheelbarrow in different places every day. She would have to find a different spot to stand in, and I would reinforce her for that. Or it might be head down or ears forward. I always clicked for the same thing within each session, but I varied the behavior from day to day. What was fun about this was that I could see her working through the puzzle, and really thinking about what I wanted that day. She learned to experiment a bit without getting frustrated and since I often reinforced standing in different locations, she became very good at standing quietly while I cleaned her stall. Even if she had the option of leaving her stall and going out into the field, she almost always chose to play the game. I'd like to think she found it fun. I do know that she did not show any frustration and it was a great way for her to earn treats. Rosie does love goodies. There was no feeling of "you have to stay over there so I can work." I built a lot of duration for standing and added a lot of little details in these stall cleaning sessions.

Working on indirectly training for duration will improve your ability to set up situations where the horse is reinforced for maintaining a behavior. It will also improve your creativity and flexibility in training. This will be very useful when you want to train for duration in movement.

TRAINING FOR DURATION IN MOVEMENT: STRATEGIES AND TIPS

All the same rules for building duration (both actively and indirectly) apply to training for duration in movement, but I wanted to write a separate section on it because there are some challenges that apply to riding and movement, and some additional strategies that are helpful in these situations. Groundwork and riding usually involve both duration within a behavior (keep trotting) and duration over several behaviors (turn here, circle, turn again, shoulder-in, etc.). They also involve the most dynamic type of duration where even when the horse seems to be doing the same thing, there is a constant dialogue between horse and rider.

In it's most basic sense, duration during riding is the ability of the horse to continue performing a behavior for an extended period of time without clicking and reinforcing. Teaching a horse to trot for 10 minutes would be an exercise in duration. I could teach this by actively training for duration and getting the horse to trot for longer and longer periods of time. In some cases this would be appropriate and a good place to start. I might be using the horse for lunge lessons or trying to get him in shape, or I might want the horse to trot so I could work on my own position or teach someone else.

But, in my personal riding horses, I don't really want a horse to just trot for 10 minutes. I want a horse that will do other things while he is trotting. I want a more dynamic type of duration where there are some underlying components that are constant, but other parts are adjustable. For example, I might teach my horse that I want him to maintain gait, forward energy, softness in his jaw, swinging of his back, etc.. while

I am adjusting bend, geography, speed etc... These are all components of trotting and I will have to start by working on each individual part and may spend some time actively training for duration in these components. This is similar to standing on the mat and then adding new details, but because movement has physical requirements (fitness, soundness) as well as elements such as energy and balance, I do make some adjustments in how I train it.

The following strategies are ones that I have used to build duration. I have found that with them, I can train my horse without undue physical or mental stress. It takes time for a horse to learn to balance and use her body correctly and to be able to focus for longer periods of time. The challenge of training duration is not limited to clicker trained horses. All horses need to learn to keep going, which requires a certain amount of physical fitness and mental focus. Some of the strategies are not specific to clicker training and are just good training methods. However, many of them take advantage of the increased communication and creativity that comes with clicker training. With the flexibility that clicker training offers, I can customize my training for each horse and rider combination.

Some of you will look at the following list of strategies and tips and think that clicker training is making duration much more complicated than it needs to be. In most traditional riding, the horse is just taught to keep going through corrections from the rider. Horses learn that if they stop, they will just be sent forward again. They keep going because they are not allowed to stop. There is nothing wrong with this approach and it works fine for lots of horses and riders, but I don't like to use it as my primary method for teaching duration.

One reason is that I don't want to get in the habit of feeling like I have to be constantly asking my horse to keep going. It is too easy for that to become nagging. While I will ask my horse to go again if she stalls out when I actively building duration, I look at that as a training opportunity to teach "go again," not 'keep going." This is a subtle distinction and initially my request to go forward again will mean both, but I eventually want my horse to keep going on her own. I don't want her to depend upon me to tell her to keep going all the time. It is her responsibility to maintain forward motion unless I ask otherwise.

Mark Rashid has a good way of looking at this. He says that when our horses slow down or speed up, they are asking a question which is "can I slow down?" It is our job to answer them. In the beginning, I answer right away. "Yes, I want you to keep going, " but over time I will delay my answer or make my cues more subtle to allow the horse the opportunity to answer the question herself. When I first started trotting Rosie, she had times when she slowed down a bit. I would ask her to speed back up. I did this by adding some leg. I was very careful to stop adding leg as soon as she was back up to speed and I would click her for continuing once I went back to my original amount of leg pressure. I wanted to be sure she knew that leg meant "get back up to speed" not "keep trotting." If leg means "keep trotting" then I would have a horse that needed a lot of leg to keep going around the ring, which was not my goal.

Another reason I don't want to rely solely on the traditional approach of correcting the horse is that I want to limit the amount of time that I am focusing on when my horse is doing something wrong. I am interested in creating a different kind of riding partner. I want to have a horse that keeps going, not because she knows she is not allowed to stop, but because she knows that at some point I will reinforce her for continuing. I believe that by using this approach, I can create a horse that enjoys movement and finding better balance.

To show how I use these strategies in my training, I am going to share some stories about my work with Rosie. Rosie is my Dutch Warmblood mare. I got her as weanling at 9 months and started clicker training her when she was 2. All her preparation for backing and under saddle work were trained with the clicker. She has taught me a lot about how to clicker train a riding horse because she is always thinking and my challenge has been to make the work fun and interesting to her, even while we work on details. As you read, do keep in mind that Rosie was trained entirely with clicker training which made her different than a crossover horse (one that was previously trained with traditional methods). While most crossover horses have some idea of duration, she had no idea that I might just want her to keep trotting. She just didn't see the point.

STRATEGIES AND TIPS: (you can also use many of the other strategies for building duration both actively and indirectly)

note: When I refer to an "effort," I mean a period of faster movement. If you have been working at a walk, a period of trotting would be an effort.

- 1. Use steps instead of time for your increments. It is not very practical to be timing myself every time I trot. It is easier to just say I am going to trot for 10, then 8, then 12 steps...slowly increasing the number of steps, with some variation in so that the work doesn't keep getting harder.
- 2. As I go to faster gaits, I ask for fewer steps. If I am training duration in the walk, I might go for 30 steps, but when I train the trot, I might go for 20, 10 or even 5 steps max. Why is this? Well, most horses can comfortably walk 30 steps with a rider on their back so this is not difficult. It is just a matter of teaching them that you want more. But it might actually be difficult for a green or unbalanced horse to trot 30 steps, and you don't want the horse to associate the longer distance with becoming unbalanced or tense. So I keep things short in the beginning. I want my horse to be able to trot 30 steps easily, but I expect that I will have to be spend some time clicking for quality and building duration indirectly, in addition to just clicking for additional numbers of steps. This is one of those cases where I could teach my horse to trot 30 steps, but why do it if they are going to be 30 horrible unbalanced steps?

In some cases, I find it is better to just get the walk-trot transition on cue and then start by shaping a better quality trot. I can go back and add duration later. There are lots of good reasons to teach a horse to trot just a few steps at a time. When I first started Rosie under saddle (as a clicker novice), I spent a long time walking and I worked on getting her soft and listening to my leg and rein aids. When I went to trot, her trot was terrible. She was so unbalanced and unorganized that I didn't feel comfortable trotting her very far. At this point, I should mention that I think Rosie has some training challenges that other horses might not present. She is a very loose limbed horse. She naturally moves with a big stride and a lot of suspension which is great. But since she is very relaxed in her body, she creates a lot of movement, even to the point where her head and neck will swing side to side when she trots. With her, there is always the balance of keeping her relaxed but not so relaxed that she is unorganized. Her way of coping with it was to stiffen and brace, so I worked in very short efforts to allow her to learn how to find her balance.

There are lots of other reasons to shape the trot by only working on a few steps at a time. It might be that you are not comfortable with trotting long distances or your horse has some other physical issue. In any case, I wanted to teach Rosie to trot, but I didn't want to just keep trotting her around until she found her balance. That would have been my approach a few years ago and she probably would have improved. But I knew that clicker training provided me with other options. So instead of allowing her to trot longer, I went back to the basics and worked on improving the quality of her trot. My goal was to teach her to balance in the trot from the first step and then build duration. Of course, in the beginning, I had to allow her up to 10 trot steps to get anything to click, but I tried to keep the trotting efforts short. And it worked. Once she could do about 10 good trot steps, then I moved on to building duration in other ways.

3. Click for transitions. Instead of always clicking at the end of "x" steps when I am training duration, I like to sometimes click when the horse completes the behavior and starts a new one. When I am training for duration in movement, I find that the timing of my clicks is different than when I am training for a behavior such as standing on a mat. Remember how in foot handling, I wrote about sometimes clicking for the end of the desired time and sometimes clicking for the horse responding to the next cue (putting his foot down)? If I am training holding up a foot, I am going to be clicking mostly when the horse has been holding his foot up long enough, with occasional clicks for when he self corrects, or when he adds a new detail. When training for duration in movement, it is really important to add that additional piece of clicking for the next behavior in early. If I am training a horse to trot, I am sometimes going to click for "x" strides of trot, but I am also going to be clicking A LOT for "can you trot x strides and then do "y." If I start this early enough, it will give more meaning to the idea of trotting for "x" strides.

4. Use physical markers as targets to increase my horse's ability to maintain movement for longer. A great exercise for a newly backed horse or one learning to trot is to set up a number of cones and teach the horse to go from cone to cone. I can make them farther apart as my horse gets more advanced, or I can start to click only some cones so that my horse might have to go past two cones to earn a click. This also works on the trail. If my horse is getting sticky about going past a scary area, I will sometimes just select a point to ride to and click her when she gets there (unless she is doing something terrible at that moment, in which case I will click at the next acceptable moment). One list member on clickryder played this game with her young mare when she put out buckets of grain and they cantered from bucket to bucket.

I use cones with Rosie in a lot of different ways. For example, in the beginning, I set up some cones and I clicked her when she got to every cone. I was using the cones to give her direction and provide her with an end goal. At this point, I didn't care about her trot between the cones. I knew she could do a reasonable trot and I just wanted to work on going forward from point A to point B. She found it much easier to trot to something, than to just trot until I clicked or asked her to stop. This is true of a lot of horses. Going forward to a location gives both horse and rider more focus.

Once she understood that she was to trot to a cone, I started only clicking her at some cones. Initially when I stopped clicking at every cone, she would hesitate as I went by a cone, and if she kept going, I would click and jackpot her. I was rewarding her for listening to my seat and riding aids that were saying "keep going.' This taught her to be more in tune with to my aids even if she thought she knew what I wanted. This is an important piece for a clicker trained horse. I did find that Rosie had a tendency to think she knew what I wanted and ignore me when I asked for a variation on a previously reinforced behavior. By varying which cones I clicked, she got better about listening to me.

5. Use "time limits" to avoid reinforcing every effort. In riding it is easy to do this because I can just keep going until I get the response I want. Sometimes I give my horse a "time limit" in which he needs to perform the behavior. I start this after the horse shows he has a basic understanding. For example, if I am working on the trot and I want my horse to give his hips, I am going to reinforce every give of the hips when I first teach it. But then I can set a maximum number of steps that I am going to trot before I either get the give or stop and try again. The point of setting this "time limit" is to minimize the unbalanced trotting, to increase your horse's responsiveness and to weed out the lesser quality responses.

This is not setting your horse up to fail. It is just defining a clear way to mark those efforts that are below my minimum acceptable level. This is important because while I want to keep the reinforcement rate up, I don't want to keep reinforcing inferior efforts or my horse will not progress. When I set my "time limit," I make it so my horse should be able to be successful most of the time. There will just be a few efforts where he does not earn a click. This will teach him that not every effort leads to a click and that if he doesn't get a click, he should just try again.

6. Use cones to mark areas where the horse needs to make a change. One Rosie understood that cones could be "clickable locations," I used this to teach her other things. She had a lot of trouble bending in corners. I started asking her for a little extra bend as we approached a cone and reinforced her for trotting around a cone with nice bend. . Eventually she started to offering more bend as I circled around each cone. I then placed the cones in the corners and reinforced her for bending around them. Over time I was able to fade out the cones and she offered bend in the corners. I have included this example here because what happened is that the corners became a kind of keep going signal and allowed me to build duration. Rosie knew there was something she needed to do in the corners so she would bend through one corner and then if she didn't get clicked, she would set off for the next one.

In my ring, all corners are not equal, so sometimes I had to go back to using a cone if she was having difficulty. I did have to be careful with this strategy because I didn't want her to tune me out between the corners. Sometimes I would add a new cone in a new location, or add a school figure so she went through a corner twice in a row before she got clicked for it. Horses are very quick to pick up on patterns

and there were times when we got stuck or she got annoyed. It might be because I had inadvertently clicked her many times in a row for the same corner or turn and then when I didn't, she would stop.

7. Once you are getting one good response within an effort, ask for the same behavior multiple times. This means you go back to your starting position and ask again without clicking. For example, if I am working on getting gives at the trot, I will ask my horse to trot and ask for a give. My horse might respond correctly and instead of clicking, I will praise him and drop the reins and start again, while I continue trotting. I might do this several times before clicking one better quality give or deciding that he has offered enough adequate gives.

Last year at the Groton clinics, I noticed that Alex was doing this more and more with the new clicker horses. She would have the riders ask for a nice bend and softening and then she would have them throw it all away, while moving at the current gait. Then she would have them ask again, and either click or throw it away. Those horses learned to keep going and the moments when they were looking beautiful were getting closer and closer together. This is a natural progression. When horses first learn to adjust their balance at one gait, it is common for them to drop down one gait to make the adjustment. They don't know how to adjust their balance at the trot while trotting. As the horse gets stronger and more adjustable, the horse will learn to balance within the trot, but the trainer has to allow the horse to learn this.

I have recently experimented with this with Rosie and I can see that it is an important step. I think I found it natural to do it at the walk. I released the reins and kept going after many gives that were not clickable, but at the trot, I was reluctant to release and let go of a beautiful trot. But at some point, she needed to learn to rebalance within the movement and I needed to set it up so she could learn that. This is different than teaching a horse to remain organized and balanced when you release the rein. It is about allowing the horse to practice rebalancing within the movement by allowing her revert to a trot of lesser quality.

8. Use variable rewards to teach your horse about duration over behaviors by training transitions. I think this is very important for training under saddle because riding is all about transitions and I want my horse to understand that even if I didn't reinforce a transition, she needs to keep going because I might reinforce the next one. The horse needs to recognize that each transition might be getting her closer to the next clickable one. Rosie was so quick to pick up the cue for trot that I had essentially clicked every trot effort. Then she would get frustrated and offer something else if I did not click the last trot. This was especially true on hot summer days when I found Rosie was quick to offer alternate behaviors (moving sideways, yielding body parts, backing...) instead of trotting. It might be that she preferred to offer a movement that required less energy, or that she just got confused. In any case, I went back and spent a lot of time working on alternating between walk and trot where I did not reinforce every transition.

However, I did want to keep her trot heavily reinforced while she learned that there was going to be variability in how I rewarded each trot. I did this by varying the quality and quantity of her food rewards. I might ask her to trot for 5 steps, walk, trot 5 steps, walk, 5 steps. I could click after the first trot and offer one carrot piece. I might skip the click after the second trot and offer a jackpot after the third trot. I kept her guessing but tried to make sure that overall, the trot was very heavily reinforced. Since a jackpot might be coming up, she got better about performing a series of trots separated by another behavior.

Once I was ready to work on the quality of transitions, I could further improve her ability to perform multiple behaviors in a row without clicking (duration over several behaviors). If I spend a lot of time working on the quality of the transitions, making sure to only click the better efforts, Rosie will learn that trotting is always the right answer even if I didn't click the last effort.

9. Don't stop "riding" just because you want your horse to keep going. I know that sounds contradictory but I found that I had a tendency to ask Rosie to trot and then just trot along with her,

thinking I could train her to keep going until I asked her for something else. I was not riding "trot to there" with the same clarity and intent that I was using when I was training other behaviors. So Rosie would get impatient and she really wanted a click. She would start throwing behaviors at me at the trot if I went more than a few strides. Would you like a leg yield? My head here? A canter transition? A walk transition? We turned here last time, how about a turn?

One day I suddenly realized that while it was clear to me that I wanted her to keep trotting, it was not clear to her. I needed to treat "continue trotting' as a behavior that I actively cued instead of being passive. This is one reason why going to a marker helps. You ride differently when you are riding to a location than if you are just riding along. Because she was green, I had been assuming it would be easier for her if I just trotted her along without asking for anything and I was consciously trying to be more passive. I didn't want to interfere with her balance as she learned to trot for longer periods of time. But I think clicker trained horses love information and want a more active kind of constant feedback. It turns out that Rosie needed more direction from me because she didn't understand the subtle cues from my seat and position that meant "continue trotting."

In the beginning I had to exaggerate the motion of my seat and the use of my legs (just encouraging every step) but once she caught on, I was able to just think "we are going forward over to there" and she would follow my thought and seat/leg aids. There is a caution here. I didn't want her to be one of those horses that you have to constantly kick, or even tap to keep going. I have always disliked watching riders who they kick or tap the horse every stride. It just seems like nagging to me. So I tried to think of following with my seat and intent and using a "breathing" leg where I accompanied and supported her motion but did not create or demand it.

10. Once my horse has a basic understanding of under saddle work, I can start to group individual movements/shapes/patterns together to create longer periods of movement. I think of this as building words from individual alphabet letters. The alphabet letters are behaviors you have already taught such as walk, trot, canter, halt, turn left, turn right, back, bend, give to the bit etc... Yes, these all have many smaller details within them, but at some point you will find that you have a "left turn cue" which is composed of lots of little pieces but is understood by your horse as a specific set of connected cues that mean turn left. You can then start to combine the left turn cue with other cues and create the school figure of a circle. This is a word. Your horse can learn that when you ride in a certain way, it means circle left.

I taught Rosie a collection of these "words" such as circle left, circle right, turn left, halt and back up, half turn, half turn in reverse etc.. Now I can string them together to make sentences. So I can ask her to circle left, turn left, turn right, and circle right. If I treat each one of these as a clickable unit, it is easy to start to put these "words" together to make lots of different combinations. Once my horse is more advanced, the school figures will become the words you use to create sentences. Rosie learned about circles, serpentines, diagonals, half turn, and half turns in reverse as clickable entities. I can combine these to come up with an infinite number of patterns..

In the beginning, I will click for each separate word, but as my horse gets more advanced, I will find that I can be more selective and only click for those words that are of better quality. And guess what? By the time I am are done, I will have a horse that can combine lots of words together and I have been trotting for 50 steps. In any training session, I spend some time working on putting these words and sentences together and then I go back and work on improving the quality of steps here and there. It is a great way to rough out a training plan for a ride, to see where your horse needs work and help your horse learn to organize herself.

This winter I used this strategy to string known exercises together, making words and sentences. I might get on Rosie and ask for a give of the jaw. If she can do this, then click/treat. Then I ask for give of the jaw, give of the hip, click/treat. I have been able to build long chains this way where she understands that she is performing a predictable series of behaviors that will eventually lead to reinforcement.

In my experiment I followed the same sequence every time, reinforcing here and there for better than usual components, but letting her know there was a pattern so she didn't feel lost if I didn't click right away. This worked pretty well and I was able to warm her up with clicks for better responses instead of clicking every response which is a pattern I tend to fall into. I liked using it as a sort of checklist when I first got on. I could see how her body was moving and if there were things I was going to need to work on that day. In some ways my experiment was building a behavior chain, but I did not do it backwards. One thing about riding is that in some cases, each exercise is preparation for the next so it might not make sense to work backwards. I might build a pattern that goes walk, trot, leg yield, and canter. In this case, the leg yields set up the canter. It is actually harder for the horse to do the canter without the leg yields and you want to start with the easiest behavior. I'm sure you could set up behavior chains that worked well to train backwards, but I haven't tried that yet.

- 11. Use patterns. This is just an extension of number ten. But I wanted to specifically mention that patterns are great for clicker trained horses. I ride a lot of patterns. I have found that by setting up a pattern, I give my horse a chance to anticipate the next piece of the pattern and organize his body in preparation. Many people treat anticipation of the next movement as a problem in training, but when your horse is just learning to combine new pieces, I think that the pattern in comforting and my horses seem to really improve when I ride a patterned exercise. Since they know what is coming next, they start to prepare themselves for the next piece in the pattern. In many cases, these become great clickable moments.
- 12. Use clickable moments once your horse has an understanding of the individual components of a behavior chain or sequence. I can build duration by using the idea of possible clickable moments. I have already talked about clickable components in the example of indirectly training for duration in leading a horse to the field. I was able to get 100 steps of walking on a slack lead just by training each component.

I can use the same strategy for riding a circle. I teach all the individual components of a good circle and then click the horse for better effort while he is trotting the circle. I might start by clicking for basic steering, but I can progress to clicking for moments of correct bend, softness in the jaw or topline, engagement, energy, and so on. This is the kind of duration I want in riding because it leads to having an active dialogue with my horse as I am working on the circle.

13. Be aware of underlying default behaviors when indirectly building duration. As Rosie was learning about going to cones, transitions, and building her vocabulary of school figures, she was getting reinforced a lot for the trot. Throughout this whole process, the trot itself was rewarded so many times that Rosie now understands that even if she has not been reinforced right away, she needs to keep trotting and she will have an opportunity for reinforcement. This is the same idea as teaching the horse to lead to the field. I can ask Rosie to trot. If her trot meets some basic criteria, then I can ask for something else that could earn a click. Under saddle, I can do this quite systematically. Once I understood that I needed a cue for trot forward energetically and straight, then I could build on to that. So, I would ask Rosie to trot. If she trotted nicely, I might ask her to turn or halt or even canter. Responding to the new aid gave her a chance for reinforcement but I would not ask until she had done the underlying default behavior of trot actively forward.

An important point here is that even though I was not reinforcing the trot with a click and treat, it was getting reinforced. The first behavior is reinforced by the opportunity to do the second behavior. This is a very practical way to train because I can reinforce the trot without having to stop and click every time. I can even end up reinforcing it more if the next behavior has the trot as an underlying default behavior. If I ask Rosie to trot and then turn at a trot, she is getting reinforced for trotting twice. I will mention that if there are specific details about the underlying default trot that I want to change, I would choose to do that in a separate training session. Or more than likely, as she got better at adding layers to the trot, the trot would just evolve. This is not about turning my horse into a horse that just trots on auto-pilot. This is about creating a stable foundation for adding new details. As I work through this process, I will get to the

where I can make constant adjustments to the trot and Rosie interprets each one as getting her closer to a click, and not as a correction.

Training duration indirectly contributes to building lightness into our horses. I haven't talked about lightness, but a light horse is one that is very responsive to a small or subtle cue. A light horse is also one that is moving in balance and self carriage. If I have systematically taught my horse to trot a circle by working on all the components, I have spent a lot of time asking for the same behaviors over and over again. Repetition contributes to lightness because the quality of the horse's response will improve as she practices more. In addition, my horse has a mental list of all the behaviors I might ask for as I ride the circle. These two things together help create a horse that is waiting for the next cue, who interprets it as a chance to earn reinforcement, creating an eager and responsive riding partner.

14. You can go back and forth between many strategies as your training progresses. If you try a strategy and it doesn't work, try something else, but recognize that it might be a useful strategy some other time. I often find that I can go back later and use strategies that I had previously discarded as not working well. As my horse's training changes, I need to be flexible about recognizing when to try new things.

Using combinations of these exercises showed me that there are many ways to build duration in the trot and that I might need to move back and forth between them to give Rosie a clear understanding of what I want. While it can be helpful to focus on one exercise for long periods of time, this is one case where I found it was better to play with building duration in the trot in lots of different ways. Each way strengthened a different component that she needed for trot duration. What is nice is that I didn't have to sit down and make a complicated plan to cover all the pieces she needed. Training involves coming up with creative plans to address your horse's needs for that moment. If you just let the horse tell you where they need help, you will find that you come up with a pretty comprehensive approach.

RETHINKING MY GOALS FOR TRAINING DURATION

If you had asked me last fall, I would have said that in training for duration, the end goal was very important. Rosie was making great progress but I still felt like there was a missing piece. I had it in my head that I needed to have a warm-up routine for her where I could walk, trot and maybe canter her around the ring to get her warmed up before we started the real work. It is the way I had been taught to ride and there is value in doing this. It gives the rider and the horse a chance to stretch, warm-up and loosen muscles, and gives the rider a good idea of what the horse needs that day. I was thinking this was just an exercise in duration and she needed to learn to go longer between clicks. So, my goal was to be able to ride for 5 or 10 minutes without clicking.

However, a funny thing happened on the way to training this. At one point last summer, when I was working on this, I realized that all I had done was waste 5 minutes of productive training time. My idea of what Rosie needed was based on my background as a traditional rider, and I was not thinking about what she needed at this point in her training.

Once I started thinking about it, I realized that it was much more productive to use that 5 or 10 minutes to do gentle walk work, getting her focused and moving body parts, and yes, clicking away. I started to think about how horses learn and move in the field. One thing that became clear to me is that horses are not creatures of duration. The only thing I see my horses doing for long periods of time are napping and eating, neither of which are very applicable under saddle. If they run in the field, they do so for short bursts and it is usually because they are under tension, either excited to go out, or stressed by something that has spooked them. It is not natural for horses to just trot around and around for 30 minutes. That doesn't mean we can't train them to do it, but it made me realize why it is hard to train our horses to just keep going. And it made rethink my vision of what a training session should look like.

In my situation, it turns out that working for long periods doesn't seem to be necessary. Rosie does much better if I work on something for a little, click and let her take a little break. Over time I can see that she feels less need to look around between efforts and I can pick up the rein and go again right away, but early on it was clear that I had her focus for about 10 seconds and then she would get distracted. Lots of horses are trained to just keep going regardless of all the distractions and she will need to learn to do that at some point too. But for now I would rather have 1 minute of her working with focus. I can click while she is at her best and then let her look while I regroup. Otherwise I have 5 minutes of her trying to peek over her shoulder, at which point I then I have to find something to click. I can already see that as she gets more time under saddle, moving off right away at a nice trot is getting more natural to her. I expect that I will get to the point where I can start out riding the trot for a few minutes to warm us both up, but if I do so, it will be because it helps us and not because I don't want to have to click so much.

Of course, once I stopped focusing on just keeping her going, I found that I was getting longer and longer duration. I no longer have the goal of riding for 10 minutes without clicking but I probably could if I wanted to. I used to have was a horse who could trot well for 1 minute and could struggle through another 2. As she is getting more confirmed in her basic trot work, I now have a horse who can trot really well for about 3 minutes. I did not get there by trotting for longer and longer periods of time. I got there by heavily reinforcing the trot I wanted in many situations and over many months of consistent training. I have moments when I can get an even better trot and I know that if I keep reinforcing that, I will eventually get more duration in that trot, when she is ready.

Anyone who has been involved in traditional horse training can probably relate to this discussion. I had certain expectations of how my horse should behave. I think I also had a sense of how training should be done and what it should look like as training progresses. I did not initially realize how much of it was based on the limitations and rules of traditional training. Clicker training breaks a lot of those rules and I know that for a long time, my goal was to train my horse with clicker training so that I could do things the way I used to do them. I loved clicker training and could see how I could shape behaviors differently, but I didn't really understand that once I was free of training behaviors in conventional ways, I needed to look at some other aspects of training and evaluate if I still needed to follow them. I was not taking advantage of the benefits of clicker training. There are a lot of good traditional methods that I still follow, but in this thinking process, I found that I was really evaluating what it meant when I said I wanted my horse to maintain the same behavior for long periods of time.

I had to go back to my original definition of duration. I initially defined duration as maintaining a behavior for a long period of time, with an added component of having the horse understand they were waiting for the next cue. Yes, I want my horse to hold his foot up while I clean, medicate, wrap, trim it...Yes, I want my horse to stand on the mat while I do something else. Yes, I want my horse to keep trotting until I ask him to do something else, and so on. And I agree these are all good and useful ways in which duration is helpful.

But, if one views training for duration as being limited to teaching the horse "keep doing this until I ask for something else," there is an implication that there is no change in the interface between us. I have found that this is just not true. In foot handling, it might seem as if my goal is to have the horse hold his foot up for a set period of time. But my goal is not to train a horse to hold his foot up and tune me out. My goal is to make the conversation between us (that occurs as he adjusts his balance etc..) so refined and subtle that it looks like he is just holding his foot steady and that this is comfortable and easy for both of us.

As I write this, I am thinking that there are some times when duration is not part of a conversation. If I tie Rosie up and want to leave her for 5 minutes, I am going to be happy with a different type of duration than if I want to stand holding her while I talk to someone. So, I am not saying that we never need just basic compliance, I am just pointing out that in many cases, when we think we want basic compliance, we really want something more. This is what enables me to keep holding my horse's foot up even if a dog runs by or something distracts him. He might wiggle his foot, but I can adjust and if I have done my homework

well, he will relax and go back to holding it up for me. I include this example to illustrate that sometimes we do just need the horse to perform the duration in its most basic sense.

So let's think about what duration really means in our familiar example of foot handling. If I am working with a difficult horse who does not pick up his feet, I will start off by clicking for any weight shift and building up to having the horse allow me to hold his foot up off the ground. A lot of horses get to this point with a steady progression of reinforcement. That is, I just keep asking and reinforcing for a little more (the next step in the sequence of movement that brings the foot from the ground into my hand). Now I have the foot in the air and I want him to hold it up for longer periods of time, so I click for 1 seconds, and then 2 and so on using good duration building strategies. What do I do if the horse suddenly wants to put his foot down before I get to 3 seconds. In the beginning, I will probably will let him. He doesn't get reinforced and then I try again. This training is not about forcing him to keep his foot up, it is about him choosing to keep his foot up even if he thinks maybe he can't.

I progress along and at some point, I will feel that if he tries to pull his foot away, I might be able to offer a little resistance and just suggest to him that he lets me keep it. I am not forcing him, just stabilizing a bit and testing to see if he is in enough of a thinking mode to realize that I am not done. If he relaxes, I will give him a click and jackpot and give him his foot back. This is a huge turning point because I can now ask him to continue a behavior before he has totally lost it. He might have lost the quality for a moment, but he did perform the basic behavior of holding his foot up. As time progresses, my goal is to be able to redirect him back to the correct behavior by asking again with lighter and lighter aids. You are creating a dialogue between you and your horse about hoof handling as you go through this process, and you are building lightness into his responses to your adjustments. Yes, it is great to now have the horse hold his foot up, but it is even better to be able to be teaching him about feel and lightness in the process.

When you look at it that way, duration in many behaviors is not passive. This is really important. I no longer see duration as just wanting the horse to continue what he is doing. I see it as the horse continuing an ongoing dialogue with me about the quality of what he is doing. I don't want him to just hold his foot up and forget about me. I want him to stay focused while he is continuing the behavior. This is why I suggested in the section on actively building duration that you reinforce those times when the horse self corrects. You are reinforcing him for thinking and returning to the expected behavior. This is why I really like to take time building duration when I can, because that kind of work trains a different mental state and adjustability into the horse and this is what creates a great partnership between me and my horses.

The other important point I want to make is that indirectly training for duration is really about giving the horses time to learn and process. I think sometimes we do ourselves and our horses a disservice by being so focused on training "x" that we don't realize we can get to "x" by taking many varied and interesting routes. To learn something well is to really understand it in many situations and in all its shapes and variations. Clicker training is great because we can teach our horses new behaviors quickly and it is easy to get caught up in the speed with which we can add to our horse's repertoire. But I think there is a lot of value in just letting the teaching process take the time it takes. The kind of duration and consistency that I see with some of my horse's behaviors is really amazing to me. I am fascinated at how interwoven they have become into my horse's reaction patterns, way of moving, and habits.

So, does this mean I don't need to actively train duration? After I have spent all this time learning how to build it in my horses? No, I am not saying that. What I am suggesting to you is that you really think about what kind of duration you need so that you spend your training time effectively. What I recognized for myself is that while I might need to train directly for duration at certain points in my horse's training, I don't need to worry if I am spending more time on adding quality through refinement and additional details. I don't need my horse to trot endless circles so I am not going to actively train her to do so.

For someone who is training lunge horses, this will be an important behavior and they DO need to spend time reinforcing that kind of duration. In one case, the end goal might be getting the horse to trot circles for 5 minutes. In another case, the end goal might be to have the horse trot one beautiful circle. In the second case, my training time could be better spent working on building quality and just monitoring

duration to make sure I am building enough duration for one circle as I build quality. Yes, in both cases, I will trot many circles, but the focus will be different. It is worth taking the time to think about your needs for duration and not just train it because that fits in with your mental picture of riding.

I did a lot of thinking while writing this article and found that I had to sharpen my own understanding of the training process. This article got bigger and more complicated as I wrote, and while I considered removing a lot of the detail, I have left most of it in. My hope is that there is enough practical advice to help people get started on training duration, and enough about how duration is built through the training process, to give them a greater understanding of how to use it with their horses. I hope I have also provided a lot of food for thought. I will end with these thoughts. Training is a constantly changing process as you and your horse develop both physically and mentally. One huge benefit of clicker training is that you can always go back and change things, so don't be afraid to experiment. Whether you build duration directly or allow it to evolve through the process, note the changes that occur in you and your horse. Your horse will become more confident, patient and focused. He will learn to take responsibility for maintaining certain behaviors, freeing you up to work on other things.

And finally, one thing I love about clicker training is that it has freed me from mindless repetition that is so common in training horses. Don't let your pursuit of duration make your training boring.

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