

## **TRAINING IS DIALOGUE...in which your dog has also something to say**

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Translation of important parts of the book made for public using



This book has been released in Czech Republic in 2014 and till now (April 2015), 8 months after the release, it remains Plot publisher's best sold book. The book was prepared for Czech dog trainers, but introduces R+ training principles to all the sorts of animal trainers. We are looking for potential English publishers. We have prepared a short translated example of the manuscript.

In the text you will find the most important parts of the book. We will also include one full chapter which the Czech readers voted to be the most important one. Thereafter will be an inclusion of the title and information about each chapter and "subchapter". For more information please contact me, František Šusta PhD., at [frantasusta@yahoo.com](mailto:frantasusta@yahoo.com). If you would like more information about the book you can ask the Czech publisher, company Plot, Mr. Matej Barták [matejbartak@plotknihy.cz](mailto:matejbartak@plotknihy.cz)

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Page 5 -Thanks (to my teachers – Steve Martin Wouter Stellaard, Gabby Harris, Prof. Susane Friedman, and to my teachers and friends in Czech as well as my family)

Page 7 - Introduction (page 7)

I don't really like long introductions. Especially when they are long introductions to long books. So let's begin right away. The book that you're reading definitely doesn't belong into a category of authors that are summarising decades of their own work. The book is not about my own work but about the science of training of animals. It is about research and experiences of thousands of people over decades. It relates the evolution of this beautiful and practical field. This kind of science is not the kind of weird science of men in white coats in a lab in another world that is alien to us. It is a description and explanation of reality. It's about how to make sense out of something we already intuitively know but quite often forget. It is a little nudge to remind us. It is taking apart something that as a whole doesn't really make sense but when we look at the small parts, we see and understand how it all fits together. . The puzzle is my book. I will take apart and show you, how logical and clear what appears to be weird animal behavior actually is, and then show you how to find a way of correcting the undesired behavior.

This book does not belong in the category - "author of dozens of definitions who lays down firm rules ..." because that would not be practical. And I wouldn't enjoy it either. Yes, there are perhaps a few terms here from the dictionary of animal trainers. Some general procedures and principles. I have in amongst these inserted my own ideas and inventions. In the parts where I'm speaking for myself I'll make sure it's obvious. I don't like dictating definitions. To illustrate these I actually prefer to tell the story – and there are plenty of those. The stories are there to make us think. Very often set definitions require that we accept with blind trust. And I wouldn't want you to blindly trust me. I want you to think while reading this book. Even if you disagree with what I've written, that doesn't matter as it's in your own right to do so. Blind faith does not serve you who bear the responsibility for your own animal. The training of animals, perhaps more than anywhere requires the following principle: "If you do not understand, do not do it. If you don't really know how something functions then it is just not going to work. For your understanding of what you are doing right now, will not only determine whether you are successful or not, but will often also determine the well-being and health of your animal friend. What fully applies is what Steve Martin my first teacher of the positive reinforcement in animals said to me: "The greatest expert on your pet is you. I'm simply the expert on methodology." And of course what also applies is what my dad said to me throughout my childhood: "Never stop thinking when dealing with animals. " So start reading and don't stop thinking...

Page 9 –

**D) AND YET IT LEARNS!**

**If I should recall my strongest experience with an animal, the memory won't be exotic at all. The greatest surprises often are within our grasp, and "close encounters of the third kind" do not necessarily take place in interplanetary spaces. And so I will probably remember forever my first lesson of animal intelligence, imparted to me by a common duck in my parents' garden. Since then I know for sure that we have real dialogue partners next to us. We only have to believe them and to watch attentively!**

Page 10 – To be taught or to learn by myself? (about the basic difference between classical Pavlovian conditioning and operant conditioning)

Page 12 – The reasons and the consequences (Establishing the ABC of behavioral analysis – Antecedent, behavior, consequences)

Page 14 – We reinforce not only the muscles

Reinforcement is understood as a process in which a specific behaviour is reinforced. It has, in principle, two forms – positive reinforcement and negative reinforcement. In the former, positive reinforcement, the animal uses its behaviour to get something it desires. In the latter, negative reinforcement, it uses its behaviour to get rid of or prevent something unpleasant. Therefore "positive" and "negative" stand for the "plus" and "minus" signs not for something good and bad. Positive = I add something. Negative = I remove something. And reinforcement = I increase the frequency of the behaviour. Examples of positive reinforcement can be simple - a child gets an A for right answer, a dog gets a treat for staying next to the owner, an artist hears applause for stage performance. But they also may be less expected - a parrot screams hysterically in the cage until the nervous owner cannot stand it any more and comes running with a blanket to cover the cage. But when the cage is uncovered, the parrot starts screaming again, and the owner comes running... and then again and again... And the parrot keeps screaming, maybe more and more. "If the parrot screams more, then it probably pays off. That means that the behaviour is reinforced," a behaviourist would say. But the exhausted owner doesn't feel like thinking of behaviourists and their erudite talk!!! He likes simple solutions, so as soon as the parrot starts screaming again, the owner grabs the blanket and runs towards the parrot - and further development doesn't matter. The parrot has succeeded in calling the owner, which rewarded its behaviour immediately. It has achieved what it wanted. The owner's presence! And so it will call him again after being uncovered. „Just you wait, I'll leave you in the dark until you think it over and get the message that you must not provoke me!!!“ But the parrot doesn't think it over and doesn't get the message. It is just not able to do it; even a child forbidden to watch TV often doesn't think it over and get the message, and instead of learning, starts hiding his record book to avoid the reprimand.

To "think it over" is a human ability. Not all people are capable of this type of rationalization. And even if they can they don't always do it. It requires recalling quietly the past events and saying: "Where did I, a poor parrot, make a mistake which caused my sitting under a blanket?" But the parrot will, if ever, only say: "I am sitting under a blanket." It learns HERE

AND NOW. Its calling was followed by the owner's arrival = reward. The parrot was pleased by the owner's presence and ran towards the bars to get petted, and suddenly the blanket = punishment arrived. So the parrot will keep calling the owner, but it may not keep approaching to the bars that throw the blanket over it! Or, as the time passes, it will really get the connection owner = blanket (this time based on classical Pavlovian conditioning), and at that moment it will stop loving the owner and calling him. The owner will exult about his consistent effort finally succeeding, in spite of "stupid prognoses of all behaviourists". He may then be surprised because the parrot has pecked him today, when he wanted to stroke it through the bars. Perhaps the owner will make a simple justification - "Well, parrots also have their off days; who am I to understand them!"

Negative reinforcement, as mentioned, is a process in which a specific behaviour is reinforced when the animal manages to get rid of something undesirable by taking a specific action. Negative reinforcement has its simple and complicated examples too. A dog walking on the leash has stepped next to the owner in order to get rid of the pulling at its throat. A circus tiger has taken a seat on a stool at the bars and the trainer stopped flicking the whip around it. The car driver has finally fastened his belt and so stopped the annoying alarm noise the car was emitting. And our beloved child in front of the DVD player stops screaming as soon as we pushed play and started the fairy tale, giving negative reinforcement to father's fast operation of the remote control.

Negative reinforcement has its complicated examples too. I remember a Border collie that didn't have a good first experience at the training centre. When it was too young, its owner took it to the centre, and suddenly a decoy with a whip arrived. He flicked the whip in the air in front of the immature puppy, and the puppy lost its nerve. It slipped free from the collar and took flight. It disliked the decoy from then on..., and our story of negative reinforcement started. The Border collie grew and matured to become a healthy and strong dog "with a grievance deep inside", similar to an action movie hero. When it met the decoy, owner of the "horrible whip", again, it decided to take its fate into its own hands, or jaws, respectively. And it bit the decoy's calf. "Look, the man didn't flick the whip! Super, that's the way to do it!" And so the Border collie found a strategy to prevent whip flicking. "I see a decoy, I bite him and he doesn't flick the whip. That guy there looks a little like a decoy. Actually, all guys look like decoys! They certainly have whips hidden somewhere! So I will bite them just in case! That is super! The bitten guy really didn't whip anything. And that woman there, with the short hair, looks a little like a guy, and as we know already, guys carry whips and have to be bitten to prevent them from flicking..." And so our "Border avenger" has bitten through from one specific decoy to the calves of all guys and later even to those of women who looked like guys. And each bite must have been successful from her perspective - as nobody flicked a whip after being bitten. Who cares that none of them had any whip, and that even the first decoy who started it all would never bring a whip near the Border collie ever again. Each bite averted an imminent disaster, although imminent only in the Border collie's head. Each bite was negatively reinforced, i.e. it increased the probability same behaviour occurring again. Then it was only a matter of time when behaviour was generalized to more targets: one decoy - guys similar to him - all guys - women similar to guys would lead the Border collie to the next logical step, i.e. "women similar to women". After all, they could

have something hidden in their pocket too. Negative reinforcement doesn't necessarily avert only an existing inconvenience but can also reduce the a perceived imminent threat. Even if the imminent threat doesn't exist in reality, it is real for the dog, so the behaviour will be reinforced. After all, a dog on the leash will finally turn back to the owner before the leash gets tightened. Averting a "non-existing" threat is a successful action, if the animal believes in the threat. This is perhaps the key to the increasing persecution complex of many dictators who, by the end of their career, execute and imprison more and more "conspirators" to avert non-existing attempts on their person. After all, each executed "conspirator" brings them great relief for a while. In behaviouristic words, their behaviour gets reinforced through negative reinforcement.

Page 16 – Punishment is not “for revenge”. It relates to a specific behaviour. (positive and negative punishment. Simple and complicated examples from animal training and daily life)



*Professor, what conclusion shall we record for the experiment?  
That Shimpy isn't able to learn any lesson from punishment, or that  
he likes bananas too much?* © Susta

Page 19 – Who estimated that? (Idea: The trainer is not the one, who can say “this is your reinforcer and this is your punisher”. Only the reaction of the animal can tell us what is and what is not the reinforcer. “Behavior is the function of it’s own consequences”)

Page 21 - Dialogue from three words (establishing basic “training dialogue” from CUE – BEHAVIOR-REINFORCER...like the ABC of animal training antecedent-behavior-consequence)

Page 22 – Summary (summary of the terms we used)

Page 23 – Stories from practise (Two stories of particular dogs):

Queenena, the puppy which was afraid of its own name



The story is about the power of a classically conditioned stimulus. The puppy came from a previous owner to new family. Queenena appeared stressed every time the owner said it’s name. It was because with the previous owner used the name Queenena only when trouble was coming. So the name became a classically conditioned stimulus. The puppy was already punished at the moment, when it heard it’s name. To establish a good relationship with the new y it was necessary to change the animal’s name.

## Second story – Johnny and Mila



Even with the best intentions in the world, it can happen that what was to meant as a reward, ends as a punishment. For example if an animal that has approached a person for the first time in it's life is frightened by the outstretched hand that holds the treat that is meant to be the reward, and it will not wish to make the approach again. It doesn't understand that the hand was holding something good. The hand itself was the problem. Or if we stroke a dog that always liked being stroked for good work, and the dog pulls away in

pain; we may have touched a hidden injury, and so we have punished the dog - suppressing the behaviour we originally wanted to reward. A reminder that the one who decides what is a reward and what is a punisher is always the animal, not the trainer. We always have to remember that the animal perceives the provided reward through completely different senses than a human does.

That was what a three year old Malinois Belgian sheepdog named Johnny reminded me. Johnny was a beautiful male full of vitality. However his energy was not aimed at the trainer, Mila, but at any other distraction in the training centre. „He lost attention very quickly and would run around the training centre, occupying himself with female dogs or exploring the area. It seemed that the training was not working. But from Johnny's perspective it did! Johnny's exercise for rewards had one big flaw - it punished more than it rewarded. Mila used the rewards in the style called "luring". She took the treats into her closed hand and moved the hand with the hidden treat to have Johnny "sit down". Johnny sat down and the same hand with the same hidden treat lured him to "lie down". Johnny lay down and the same hand, still with the same treat, lured him further... At that moment, Johnny was to fulfil the third command and finally get the treat. But that didn't happen because he stood up and ran away towards the females instead.

Do you know the situation of a mountain trip when you are walking towards a cottage whose position is known only to the group guide, and you cannot walk any more? The group is slogging, the dream goal with a warm room and hot tea is still not in sight, and the guide, wishing to encourage you, states: "The cottage is behind this hill." "That is great," the group rejoices, gathers their last bit of energy and sets out. They pass the hill and ... "We are really very close, the cottage is behind this very hill," the guide uses his proven motivation trick again. "Well, he could have been mistaken," the tourists think and gather their energy once more. Yet behind the next hill where the cottage was allegedly situated there is nothing. The guide tries his proven "cottage-behind-this-hill" trick again. "Get stuffed!" the tourists answer automatically and throw their backpacks on the ground refusing to walk any farther. The guide not only lost credibility but most importantly, he has performed negative punishment on the tourists several times in a row. He gave them a promise, something that could be relied upon (in the tourists' opinion). They actually had one foot in the cottage thanks to his promise; that's why they speeded up to put both feet into it, and... suddenly they don't have

even the first foot in the cottage any more. The certainty of the cottage has disappeared. Which is the removal of a certainty – hence negative. Their activity was suppressed by negative punishment.

And now let's imagine a dog whose sense of smell is many times better than a human's ability to smell. Do you really think the dog does not have a completely clear picture of the kind and amount of the treats hidden in the closed hand in front of his nose? He certainly has a perfect picture about it. The hand with the treats is heading to the ground, leading the dog to lie down - "the cottage is behind this hill". The dog has laid down, but the hand passes to another command - "the cottage is actually only behind this very hill" - instead of rewarding. And at that moment, the dog loses the certainty of the specific treat he is very aware of, thanks to its super nose. That is one of the many disadvantages of luring.

So how to keep Johnny at Míla's side in positive way, preventing him from running away? The solution is quite simple - she should remove the treats from her hand, give commands only with her empty hand and, to start off, reward each exercise, not only every third or so. To start off, she even should reward his mere look at her or spontaneous sitting down before her. But no luring; the treat must be reached for only after the dog has performed something. When he manages this, at first far from the attractive females, we can move closer to them, and then eventually start asking for longer series without treats. It is vital that we never promise something the dog won't get. Doing this, we rid our training of the punishment the owner wasn't even aware he was using. And suddenly it worked. In just one training session, we extended Johnny's concentration to several minutes from the original couple of seconds. From here we designed instructions for further steps. Today, after several months, Johnny's concentration is much better; he is able to resist attractions and takes part in dog dancing performances without running away. We haven't completely managed everything. But we have a manner in which to make a really fair deal for Johnny, instead of offering empty promises. And this is leading to better results.

## II) THE GOOD, THE BAD AND...THE POSITIVE

Once a week, I take my son to swimming lessons. The lesson involves a bunch of five year old children swimming and reveling very enthusiastically in the pool. The parents, are sitting around the pool, watching their great performance and pleasure. After several lessons, some of us stopped waiting at the pool and went to the hall to have a coffee instead. And what do you think, happened to our "five-year-old kids who till then had been swimming zestfully"? The girl with the blue cap started turning two meters before the end of the pool in her mother's absence, and a thickset blond boy invented a



*Mr Dog. Here is an offer you cannot afford to miss. Choose.  
Do the behavior for positive reinforcement, or positive  
punishment will follow.*

*F. Susta*

perfect trick, stopping in the middle of the pool, and when the trainer wasn't watching, he swam back just from that spot. Without our supervision, it suddenly came out which five-year-old kids were there because they really wished to swim. They were those who turned only at the opposite edge. Those who started turning in the middle without supervision were there due to their parent's wish.

(In this chapter I want to explain, that positive in behavioral analysis does not mean "nice" and negative does not mean "bad". Positive is only about adding something into system. Negative is about taking something out of the system.)

Page 28 – Nightfall for bad guys (why do we prefer positive reinforcement and what side effects are coming with negative reinforcement and both kinds of punishment)

Page 36 – Positive doesn't mean "feeder"

The words "positive" and "negative" have different meanings in different contexts, and those meanings unfortunately confuse us. A positive person is usually open, nice and friendly. A positive event or positive news usually brings us a pleasant experience. Perhaps except when you are waiting for the results of examination on a bad infectious disease in the physician's waiting room... At that moment, the doctor's statement: "I have positive results for you" provokes justified fear. Will it be positive, i.e. pleasant, or positive, i.e. "something extra" was found in blood? So, to remain completely clear for next chapters, remember that in animal training, "positive" means "something was added". It could be a pleasant thing (then we have positive reinforcement), or an unpleasant thing (then we have positive punishment), but in any case, it is something that hasn't been in the system before. And in case of positive



reinforcement, we increase the probability of a specific behaviour of an animal by adding something the animal wants into the system.

Let's look at the example of the swimming kids at the beginning of this chapter. As soon as the supervising parents left, the kids divided into two groups - one group kept swimming the whole route, and the other group started turning in the middle of the pool or even sooner. What did those who swam till the end gain? The awareness of being a bit closer to their goal - to learn to swim. With each further distance in the pool covered, they mastered it better and better, and so each touch on the opposite edge was rewarded with good feeling inside the kid's head. What did the "swindlers" gain by the same action before their parents left? With each touch, they were able to avert the danger of intervention of the parental authority. But as soon as the authority disappeared, there was no reason to keep making efforts and wasting energy. They didn't wish to learn to swim; their parents wished it. Expressed in terms of behavioural analysis, the "fair kids" were swimming based on the principle of positive reinforcement, while the "swindlers" on the principle of negative reinforcement, i.e. under pressure. And they just showed us that a behaviour created through pressure and force will work only as long as it is enforceable. Or better - "as long as the trained animal considers it enforceable". Often only until it challenges us and notes how consistently we respond. Actually, very often we are not very consistent when training many animal species, and even face-to-face with our children. It is therefore better for us if they work based on the positive principle. That means it is better if they follow their own goal.

In my dog training workshops, I often use the comparison of a sportsman in a stadium and a recruited soldier in the exercise area. The sportsman is usually in the stadium because he aims to achieve something. He plans to qualify for the Olympics standard (goal) and so make it to the Olympics (reward). He also has a trainer in the stadium is telling him what to do. And the sportsman runs, jumps, lifts weights, works as hard "as an animal" following the trainer's instructions. On the contrary, let's imagine a soldier recruited to perform the compulsory military service (which has already been cancelled in our country), who is there only because he wasn't able to avoid the service. He also has somebody who tells him what to do. His commander. "Hit the deck, get up, hit the deck, get up!" And the soldier also has a goal - to last out till the end and not to cause any problems, in order to avoid punishment. What will happen when the sportsman's trainer, or the soldier's commander gets ill? The same thing that happened to the kids in the swimming pool. The sportsman motivated by his goal to "meet the limit" and get the reward, i.e. "go to the Olympics", will go to the stadium even without the trainer and keep working according to the training schedule. If he has no written schedule, he will call the trainer and the trainer will tell him what to do. A well motivated sportsman without trainer won't slow down, he won't huddle the training, and each partial training success will bring him closer to the Olympics limit and to his final reward. What about the soldier who has learned in the barracks that there is nobody to lead the exercise due to the commander's illness today? There is only a small probability of him going to seek another commander or to command himself "hit the deck, get up, hit the deck, get up". His goal and final reward is to be in peace in the barracks - and he is there already.

The comparison of the sportsman (positive reinforcement) and the soldier (negative reinforcement) gives us even deeper context. For example, a good trainer with a well motivated sportsman won't have to raise his voice in training to set the sportsman in motion. The athlete running around the athletic oval won't slow down behind his trainer's back, and if the trainer tells him: "Now do it in fifty seconds," then the sportsman, if he is able to manage fifty seconds, will do it not in fifty seconds, but even faster. Because he does it for himself, and the trainer is only a means to achieve success. But if the soldier in the exercise area gets the task "twenty times hit the deck and get up", then he will do only exactly the amount he has to. He won't hurry more than needed, and if the commander has said twenty, the soldier certainly won't do twenty-one. The commander isn't the soldier's means to achieve success. He is an authority that pushes everything forward with his will. The commander has the goal for the soldier to do twenty times "hit the deck and get up", and so he shapes the soldier through drill like a working tool that has to serve him at its best.

Have you ever noticed how easily a sportsman can turn into a soldier in our model? It can happen when the trainer starts caring about the sportsman's result more than the sportsman himself. "Come on, hurry up, where are you looking, pull harder, where are you shooting, why are you hanging around in this way...?" He pushes the sportsman forward by force, realizing that the sportsman's performance is crucial for his own success. And suddenly, surprisingly, the sportsman's performance starts dropping, and today he even has taken a day off, although he was to run stretches according to the training schedule. How is that possible? The trainer, with his pressure, has deprived the sportsman not only of the pleasure but also of his own interest. Similarly to the ambitious parent who is able to spoil the child's pleasure of a game the child originally chose and loved.

What has the pressurizing trainer done? He has relieved the sportsman's responsibility for his own performance. By using constant pressure, he has assumed the responsibility himself, and the sportsman has passed it to him with surprising pleasure. The thing is that responsibility is a burden and that it is very simple to live according to another's dictate. Or, as some human psychologists say: "It is so tempting to assume the victim's role. It saves effort and frees us from responsibility."

The same principles of the sportsman-trainer relations apply also to us and our pets. We certainly love our dog, and the common experience of training can be great fun. Those who have set out on the path of correctly directed positive training can achieve real miracles in common lessons, including games similar to "warmer-warmer-hot". When the dog with only simple guidance advances closer to the goal step by step, through its own effort and decisions it is playing. All that is great, until the time comes to participate in some exams, competition or to show our work to a higher authority. At that moment, the dog often stops working as it should work. It slows down, is nervous, does a lot of mistakes and becomes passive. What on earth has happened? By his excessive effort, the trainer has turned into a commander, turning the dog-sportsman into a dog-soldier. The trainer has deprived the dog of responsibility for its own decisions, similarly to an ambitious father at the football field has deprived his son of his beloved game. And at that moment, the dog, the son and the soldier assume rules adequate to the new situation, surrendering the responsibility for their lives to the person who asks for it. Then the training passes from positive to negative reinforcement.

The reader could say "All this is logical, but it is only talking without material proof,". But proof is possible - a physiological change has occurred in the organism that could probably be measured. Let's say that positive reinforcement occurs when the animal is fundamentally at ease and wants to get "something extra". Negative reinforcement occurs when the animal has a problem and needs to get rid of it. So in positive reinforcement, the animal passes from normal inner state to blissful success. On the contrary, in negative reinforcement, it passes from inconvenience to normal state. That, of course, provokes some feeling in the animal, and the feeling is generated by specific levels of specific hormones in the body. There is a huge range of such hormones, i.e. of chemical substances produced by endocrine glands and carrying information from one organ to another all over the body. I apologize now to all experts for simplifying this by reducing the feeling of wellbeing in the body to "increased level of endorphins" and the feeling of unpleasant stress and pain only to "increased level of cortisol". From this perspective, the individual who works under the influence of positive reinforcement, works towards increasing of the level of the organism's endorphins. And the individual who works under the influence of negative reinforcement tries to reduce their cortisol. And we are at the heart of the matter. Because those who try to increase their endorphins, theoretically can increase them endlessly. But those who try to reduce cortisol will arrive at a zero. . When cortisol is at zero, the problem has ceased, I am in normal condition. Ended, finished, there's no reason to continue! That's why, under negative reinforcement, we do only as much as we really have to do. That's why the soldier under the commander's pressure will do only the amount of exercise he has to. He doesn't feel like adding something. Zero cortisol means, under negative reinforcement, end of work, end of any reasons to continue. But zero cortisol occurs also when the commander has turned his back on the soldier. Zero cortisol is achieved by a horse who, in a large enclosure, avoided being caught for a ride, or the "Border avenger" who averted the non-existent threat. Cortisol can drop to zero also in a working elephant as soon as it realizes that it is much stronger than the guy driving him on with a whip. All this means is that a behaviour created through negative reinforcement will work only in a situation where it is enforceable. Whether the enforcer is real or imagined. It works when the animal at least thinks that it is enforceable or that defence would cost more stress than satisfying the pressure. "How come that our ponies go with an adult where they should go, and as soon as a child holds them, they pull the child to the next lawn and start grazing?" Well, that's because the child isn't able to enforce their behaviour, and the pony knows it. In case of an adult who is able to resist by force, the pony won't even try it. In this case, enforceability works - like when the "commander is looking" in the exercise area. After all, do you know the humorous Murphy's law: "After unleashing, the dog becomes deaf"? That applies to a training that is missing positive reinforcement.

From the perspective described above, positive reinforcement seems to be an ideal tool for animal training and to have no "but's". But some "but's" are definitely present, and we must be aware of them. Let's go back to the comparison of the sportsman and the recruited soldier. The sportsman runs around the stadium driven by his own desire to achieve something, while the soldier marches driven by his commander's will and pressure. But the time will come when it will end for both of them. The soldier goes back to the barracks and the sportsman

goes back to the changing room. Which of them will cope better with the end of work? The soldier. At that moment, he has fulfilled his duty and can enjoy his leisure. "Leisure", that is the word that has pleasant sound for him, as he already imagines that he will finally do what he wants. But what about the sportsman? He has ended the training for today, but the competition for which he is preparing is in a distant future. Has he trained enough today, will it do? Shouldn't he run one round more? Perhaps it would help in the competition?! The uncertainty whether he has done enough for his dream success can be terrible. I know it because I performed top level athletics for some time. In one single training, we sometimes jumped up more than thousand stairs, and if I didn't feel as tired "as I should be", I often added some more, to be more certain that I have done what I could to be successful in the championship that was to take place after two months. "More certain", not absolutely certain, as I could never be absolutely certain after all. I remember that once, as a thirteen-year-old boy, I set a goal to win the national championship that was to take place in mid-September, and I went twice a day to the stadium every day during the holidays. When I couldn't go to the stadium, I got angry. The closed stadium distanced me from the "near-certainty" that I have done everything I could. "What leisure?! That was almost a punishment? I could have missed the victory!" When looking back today, I doubt that I was normal..., and I point out that before reaching puberty, I lost that fanaticism. It was a terrible burden of responsibility for "doing my best", it was almost unbearable. Therefore I later started simply believing my trainer that this has been enough and that I shouldn't do anything more.

And now, let's imagine, instead of a zealous sportsman who "never knows whether he has done enough", a dog in the same condition. Ideally a Border collie who is desperately gazing at its owner, as if it wants to say: "come on, ask me to do something". Leisure? That is almost a punishment in positive reinforcement!

As you can see, positive reinforcement doesn't necessarily mean "to be well-behaved". It only means "to reinforce a specific behaviour by adding something the animal wants". Positive and negative are not equal to good and bad, but they are two different principles driving the course of things around us. And a good animal trainer should be able to recognize which force he is playing with in each moment. Yes, force. Because positive and negative reinforcements are, in my opinion, two different forces that drive the learning process forward. We can compare them to a car with a petrol tank and a gas tank that, additionally, has different motors for different drives, and the drives are controlled in opposite ways - "for petrol, you must step on the pedal, while for gas, you must lift the pedal up." The driving force of positive and negative reinforcements behave in just such different ways.

A dog - sportsman needs a trainer-partner to ensure it is being driven forward by the force of positive reinforcement without making it feel like it is going mad as a result of permanent uncertainty as to whether it's performance is good enough or not. . Somebody who will use a much more elaborate dialogue than the above mentioned "cue - behaviour - consequence". He will have to tell when it was right, when it was enough, or what the dog can do if it isn't sure. The dog will have to be able to say when it is and isn't ready. In short, they must create their own "secret language". And that will be discussed in next chapter.

Tobias and Lucka



Lucka found Tobias, an intelligent and healthy representative of the "mongrel breed", as an adult dog in a shelter. Together they do obedience training. Obedience is a sport based on fulfilment of exactly prescribed exercises that requires the dog's joyful and willing cooperation. Exactly the "joy and willingness" that is predestined by positive training methodology. Lucka and Tobias are really good at it, at least in my opinion.

This dog sportsman in the prime of life has only one oddity. On leash and without leash, we two different Tobiases. At least that was the impression he gave me when we met for the first time. There are many dogs whose behaviour is changed by the leash. A group of dogs, and there are not few of them, suddenly starts attacking other dogs that haven't annoyed them till they are on the leash. Some dogs start showing fear when put on leash. Another group, also quite large, has perfect obedience only on leash, and when the leash is taken off, they act in accordance with Murphy's law: "After unleashing, the dog becomes deaf." But Tobias didn't belong to any of them. He was an original. At the first training, while without leash, Tobias didn't move a single step from his owner, following eagerly and responding perfectly to all cues she offered. When on leash, he didn't care a bit for his owner. His motivation was to look for what he could swallow, sniff, and he searched for places to hide. In short, without leash, he was like the sportsman from our example, while on leash he was like the recruited soldier. How can such a double predicament exist? Two different displays. From where do the two different sets of working rules originate? Exactly as in the example of sportsman and soldier, the trainer turned into commander. The result was due to the trainer's excessive effort.

If, in positive training, the handler exercises with the unleashed dog in a large open space, they are held together actually only by the dog's interest. The dog is the faster of them, and he wouldn't have any problem moving away from his human. By staying with his human and fulfilling his human's tasks, he says something like: "I want to, you are interesting for me, you give me a chance to achieve something I want and I am not able to achieve without you!" At such moment, the human is a trainer, a precious and important tool that assists the dog to achieve success. But as soon as the leash is fastened to the collar, the two are held together by something more than by the dog's mere interest. Now there is no other possibility, now there is only a need! As if an amateur sportsman signs a professional contract, commits to specific results and gets a trainer who depends on the sportsman's success. Such a contract usually includes specific results that must be achieved by the sportsman. But the contract also includes results that, if exceeded, bring extra rewards. If the sportsman's performance is naturally higher than the binding lower limit given by the contract, nothing will change and the sportsman will keep working under positive reinforcement - get bonuses and extra premiums for exceeding the optional higher limits. But if the sportsman has committed to perform on the edge of his capacities, he will be daily pursued by the contractual

commitments. "You will do it, or else...!" He isn't able to achieve the higher limits, he only can try to master the compulsory minimum. And at that moment, he turns into the recruited soldier who MUST, and so he performs exactly within the rules of negative reinforcement. He learns to do exactly what is needed to comply with the contract and to stay in the club, as that is sufficient. Particularly if he has a trainer who "pushes him" over the critical limit. Let's imagine unleashed Tobias exercising with Lucka. Command - behaviour - reward. Sit - he sits - treat... If Tobias doesn't do the required behaviour upon command, Lucka will go on without him, and he knows it very well. That's why he eyes her, laps up the tasks, and if he doesn't know what to do, he joins her awaiting further instructions. He does everything at his own responsibility. Then, suddenly, the leash clicks on his neck, and at that moment the dog - amateur sportsman turns into a professional sportsman. Now he has signed the contract, and from this moment on, the issue is when his new commitments will catch up with him, turning him from sportsman to soldier. "Heel," the command sounds and Tobias doesn't comply, as he is sniffing at something. And at that moment, instead of the handler going away (as the case without leash would be), a yank on the leash occurs. At that moment, Tobias, a professional sportsman, has been caught out not honouring his commitment. The yank also says: "You will do it anyway." In other words: "Now it isn't up to you. I have decided on your behalf. End of your will, end of your responsibility." And responsibility, as we know already, is a burden the animal will gladly get rid of. Well, Tobias switches from amateur sportsman directly to recruited soldier and starts doing only what he has to, or what he is brought to do by the yanks on the leash. "Now it has yanked, so I must heel." But as long as it doesn't yank, he doesn't feel like doing anything... - "after all, it will yank in the end, so I have time to sniff at something before it comes. I needn't follow Lucka any more, she won't run away, she is tied to me with the leash." That's exactly the same situation as that of the professional sportsman - he also can be sure of the trainer's presence, as the trainer has assumed the task to "push the sportsman into the required results".

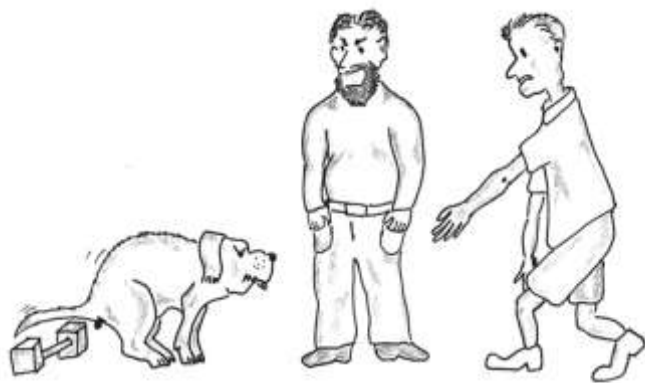
Therefore we changed a little the strategy with Tobias on the leash. As he had had his existing rules too deep-rooted, we started rewarding him on the leash for very simple things. If he looked at Lucka when on the leash, he got a treat. On the contrary, if he started pulling away, the leash didn't let him go, but it didn't yank either, to avoid confirming his old rules. The easy tasks and rewards came when he was next to the owner, while when pulling on the leash, he didn't get them. Always as a result of his own choice. That was our principle, and that principle is bearing fruits already, as it has turned Tobias into a constant amateur sportsman, both with and without the leash.

44 - Second story - Chelsea and Markéta – another story of changing from R+ to R-, which trainer did not appreciate, now explained not using all the training with the animal, but just in one behavior.)



### III) SECRET LANGUAGE

**"Agent 000 captured by the terrorists tells us several pieces of information on the video with ransom demand," the agency specialist analyzes the video. "Five deep breaths in the middle of the sentence mean that there are only five kidnappers; repeated scratching and rubbing his nose means that they have only semi-automatic weapons; and sneezing at the end of the sentence means that the building isn't protected by tripwire system. Therefore there should be no problems at rescuing him - unless agent 000 simply has a cold."**



*I am an expert in dog language. Give me 100 dollars and I will tell you what he thinks of the game of fetch.*

*F. Susta*

In animal training, we too often get into a situation similar to the situation of the agent analyzing the secret message. But while he is separated "only" by hundreds of kilometres from his colleagues, we are separated from our animals by millions of years of evolution of our different species. "Do the five deep breaths mean five kidnappers, or does the agent only have breathing problems?" "Was Max's rasping only nervous snort, or did he regularly growl?" Similarly the success of the rescue depends on

correct decoding of the secret message, the success of our exercise with Max depends on correct identification of what has occurred just now. Yes, both agents in the example passed the same training, read the same manual, therefore they will probably use their secret language correctly. I also can read a manual on Max, which will help me to know what his signal means. But what about poor Max? Where can he read a manual on me? The example of the two agents differs in one essential way from animal training - in the agents' case, the information flows in one direction only, while in animal training, pieces of information flow in both directions. While the human may feel uncertain when reading animal signals and search for answers in books, the animal is much worse off. The animal doesn't have any manual on us, and the only possible instructions to decode the "mysterious human language" consist in bilateral rules of mutual communication, confirmed and learned in day-by-day training. A common Esperanto, whose only dictionary consists of our actions.

Page 50 –The bridge, the most important word of the “secret language” (defining what the bridge is, increasing the actual dialogue to Cue – behavior-bridge-reinforcer)

Page 52 – Bridges around us ( If we don't have a clicker it does not mean we do not have a bridge. Dogs often use other bridges that inform them about coming reinforcer, of which we

are not conscious. We have to know about these bridges and work with them or teach dog new bridge, which we can use better. Limit of “visual bridges” compared to “audible bridges”)

Page 55 – The moments, when time breaks down (that bridge does not only say “reinforce is coming” and “your behavior is successful” , but also “behavior is done, you can stop it” – so the terminant bridge with all the consequences it means)

Page 57 – Blazing clicker (about the typical dog training mistake, when trainer clicks too much, much more than he reinforces, so the bridge loses connection with the reinforcer)

Page 57 – “Go on, go on! (about the “keep going bridge”, possibilities how to use it and also dangers of wrong use)

Page 59 – “You are working nice, but you are on a wrong way” (about “no reward marker” NRM, possibilities how to use it and also dangers of wrong use. Compared with TV show - the epistemic competition and the signal sound of “wrong answer”, question how do competitors of different personalities feel when hearing this signal)

61 – All that glitters is not a command – about the “feedback signals” (about signals we give to dogs, which do not say “do behavior”, but “prepare yourself for an upcoming event we have previously trained”. We also call it “promises” – a promise to a dog about how his near future is going to unfold. This is very useful when working with stress)

A workshop participant told an amazing story. The dog of an elderly lady, if left alone in the flat, suffered from upset states, scratching the door with his paws and howling desperately. This occurred every time the owner went to work, even if she only went to fetch something there. But if his owner went to the garden, met a neighbour and went to have a coffee with her, the dog spent the whole afternoon lying on the couch without any problems. How comes that, regardless of the duration of the owner's absence, the dog felt so desperate if she went to work, and remained calm if she only went to the garden and from there to see her neighbour? How could he actually distinguish both situations? It turned out that the secret code that distinguishes one situation from the other is the bedroom door. If the owner went to work, she closed the door to prevent the dog from sleeping in her bed. If she went to the garden, the door remained open, because "she will be back in a minute". And the message "I will be back in a minute" stayed here as a reliable promise, even if she stayed with her neighbour longer than she did at work.

In our daily activities, we have a number of rituals the animals are able to distinguish. A lot of dogs are able to easily distinguish whether they are going for a walk or to the vet's. Almost every dog is able to distinguish when the family members leave for work or if they leave for a holiday, etc. In most cases, the finding is based on the dog's observation skills. Yet we only give him commands that communicate our wishes. Why additionally we don't communicate also what the dog can rely on? If the dog from our example has learned to distinguish between long and short absences only by the open bedroom door, he certainly would distinguish it also by something purposefully delivered by the owner. It could be a mere



word. Perhaps a common word "wait" that doesn't cue a specific behaviour from the dog, but simply means I will return after a short departure. For the dog it is a promise. The promise - "I'll come back in short while" – a promise that will apply to longer departures or to leaving the dog in strange places. "There is nothing to worry about, your owner will come back, he has promised by providing you with the information in the word WAIT!"

In our trainings, we eliminated fear from shooting successfully by using a signal telling the dog that a gunshot will come, giving him time to prepare. "Bang," the human says and fires a popgun. The popgun is not particularly horrifying; so a dog fearing shots will master the shot without particular stress, and he even gets a reward after it. "Bang," the human will say later in another situation and will fire a louder gun. By this time, the dog will be prepared already, knowing that he can get a reward for withstanding it. The word "bang" will prepare the dog whenever shots are fired, and if he withstands them, he will be rewarded.

To create promise or messages which tell the dog to "get ready, something harmless is about to happen", can make the human's and particularly the dog's life much easier. But it also can go wrong, and a useful promise can turn into the most terrifying word in the world if we do not follow training steps appropriately. What if the handler says "bang" and fires a real shotgun straight away? The dog will try to flee, but the leash will prevent him from leaving. At that moment, he will shrink on the ground in stress. In the future, he will have learned that "bang" means horror that cannot be avoided. Therefore he will fear the word "bang". Because the word has been transformed to the level of "conditioned punishment". Then the effect of the word on the dog will be similar to the effect of eerie music we hear in a movie that pre-emptly something frightening. Even if nothing happens in the movie. The beautiful movie heroine climbs the stairs to the loft to search her cat, and the television resonates with deep fatal tones and unexpected cymbal blows. "I can't watch it!" the faint-hearted huddle up under the blanket with their heads hidden and their eyes shut, only listen to "kitty, kitty" among cymbal blows and gloomy string quartet music. The frightened viewer will poke his head out only when the heroine holding the cat comes down the stairs and the music has turned into fine a glockenspiel melody to celebrate the return of the lost pet. "That was horrible!" the frightened viewer evaluates the scene and goes to the kitchen to eat something to calm down. "Well, she grabbed the cat in the loft and went back," his room-mate says; he wasn't hiding and saw everything. What has caused the two people's different responses? Perhaps one of them is just more fearful than the other. Perhaps the "braver" one is watching his first horror, and he has never linked the eerie music of string quartet and cymbal blows to the bloody death of a movie hero. For him, they just "play strange music and the lady is searching for her cat". But to the other one, who has watched several horror movies in the past, the sound track is a clear message that the loft is full of vampires, maniacs and murdering dolls. If we want to make use of the information signal to assist the animal to bravely face the "horrifying thing", the thing must not be horrifying but endurable during training. Failing that, we'll have a "dog that hides under the blanket whenever it hears BANG music", instead of a confident self-assured courageous dog.

Page 62 – “Bye, bye, happiness” (about end of session cue and dangers which can be connected with this signal. Compared with love story from Hollywood movie, where in three

different scenarios girl says to her lover “I am leaving you”. How to manage the end of lesson to be less stressful?)

Page 65 – “Ready to work” (about signal the animal gives to us, that it is ready to work. Teaching animal good way how to say that, to prevent begging or aggression. Using “default behavior” technique for that. Increasing the actual training dialogue into 5 words: I want cue – cue – behavior – bridge - reinforcer)

As we have mentioned at the beginning of this chapter, the secret language flows in both directions during animal training. That means, both from human to animal, and from animal to human. There are many books describing fine nuances in animal communication, body language, grimaces, sounds, etc. But even thousands of books aren't able to describe exactly what has developed over millions of years. It differs not only from species to species but also from race to race and from individual to individual. So why couldn't we teach our animal one common secret code that will enable it to tell us, their trainers, the most important animal information in positive training? That information is: "I am ready."

"Well, guys, I am going to meet them and pass the suitcase of cash to the kidnappers," the police negotiator says in the movie. "I am bugged, so you will hear what is going on. Listen carefully and when I say the word, FANTASTIC, you must raid the building!. A couple of minutes later, he is standing among the kidnappers and says. "Here is the suitcase with the ransom, you can count it. Isn't it *fantastic*, to see one million all in one place? I say, isn't it *fantastic*? Yes, *fantastic*, FAAANTAAASTIIC!... Did they forget the code, or is my bug on the blink?"

In the chapter called „What if he doesn't feel like doing it?“, we have described the technique of the "first step for the animal". The animal will learn in it that the session will only begin i.e. a chance to earn a reward, will commence only if they ask for the session in a pre-learned manner. We have not taught the animal to achieve the reward by whining, pulling our trouser leg, loud whistling in case of birds, etc., as something like that would soon get out of hand. On the contrary, the ideal way for the animal to show that it is willing to participate in the session may include the following options: a seal heads to its specified stone near the pool without being asked; a parrot sits down on a specified "training" perch; or a minipig heels the trainer. For a dog, it can be concentrated quiet automatic sit in front of the handler or heeling the handler, in short anything simple where the animal cannot become unpleasant in it's enthusiasm. Where they are simply attentive and waiting for a command.

In positive reinforcement training, this is more important than it may seem. In fact, a positively reinforced command is something the animal strongly desires. So it will take the opportunity without obligation from anyone, i.e. not only from the owner. So for example, if a frisbee is about to be thrown and the eager dog expresses its ardour by jumping up around the hand holding the frisbee and barking, it will do the same to everybody who grasps the toy. The grasping of the toy has become the cue to express enthusiasm. The jumping up has become the dog signalling the human. He is saying "throw it, I want it", and the throwing has become the reward, because it is followed by further super dog adventures. An adult owner takes the frisbee, the dog jumps up and barks and the owner throws, positively reinforcing the

dog's behaviour. A child takes the frisbee, the dog jumps up and barks as usual, but the child only looks at it and doesn't throw the frisbee - it doesn't know the secret code and cannot "react to the cue". And what did the movie negotiator in our example do, when nobody had reacted upon the agreed code? He repeated it. Once, twice, then louder, then as loud as he could. So what will the dog do? Just the same, he will get tougher in his calls, if "bugging" the child's "doesn't work". It jumps up closer to the child's hand, barks more actively, and suddenly snatches at the hand with the frisbee. "Ouch, this is a bad dominant animal that takes toys away from children!" Unfortunately not; it is an animal who has learned to signal his readiness in an inappropriate manner, facing somebody who "didn't know the code". And so it just repeated the code again and more vigorously.

Diligent dogs often may create their own methods to signal us: "I am ready, come on." Many such methods drive the owners mad. A dog wishing for the toy barks loudly. An agility champion spins, barks and digs the earth before start. If such behaviour is followed by a specific command for work, an endless spiral of mutual perplexity and gradual intensification of the dog's signal starts to occur. But if the owner thinks: "No, I'll give you a task after you stop this," it won't end up any better. In fact, the dog doesn't know that it is making a mistake, so it will try to repeat the code more distinctly, similarly to the frisbee example. At that moment, the owner may yield, give the dog its task, and they are back at start again. This is even worse, because now the dog has learned to signal with, higher intensity .

If we want to break such inappropriate behaviour, we cannot succeed by training in the original circumstances, and particularly not with the very tempting signals. Let us look at the agility champion example. Let's say that our dog shows its wish to start by displaying crazy spinning behaviour. However, it doesn't spin everywhere. Only a specific distance from the agility course. Similarly, there will no doubt be more and less popular obstacles in the agility course. So a particular obstacle is the tempting cue that triggers the crazy behaviour, and its tempting character increases with decreasing distance. To keep the dog thinking, the training must start somewhere out of this tempting zone. The rewards can include treats or a toy to start off. Only later, will we let the reward be the actual agility obstacle. But first of all, the handler must be clear on what the "I am ready" signal is that he wants to teach the dog. It must be something the dog will not have the ability to increase in intensity to the point where unpleasant behaviour can occur. So a good "I am ready" cue is for example heeling or sitting beside or in front of the handler.

Let's say that the handler has chosen sitting down beside him as the "I am ready" behaviour. The dog that has already been taught the meaning of the clicker as termination bridge and knows that the handler has some treats for him. The dog, is unleashed and left without commands and is still far enough from the tempting obstacle. At this position, it doesn't know how to earn the reward, so will look at the owner. Click, reward. So the owner has used the clicker to capture the simplest thing the dog has done without command. In actual fact, at this point, the look was "a try". In further tries, the handler will reward, the look. Eventually the handler will increase the demands, firstly only that the dog heels more and more, and later even sits down, or first sits down and later sits down only after heeling... In any case, no command is used to create this behaviour. The dog invents it by itself, step by step. The only

cue it has is: "I have my human here, and he has rewards. Ah, I want him to give me the rewards, but I don't know what I should do..., so I'll try to sit down beside him..., whoopee, it works!" As soon as the dog uses sitting down beside the handler as so called zero variant (if I don't know what to do, this is what works), we can take off for the agility course. Till now, the dog wanted treats; but as soon as it enters the tempting zone, it may want to start running. Therefore, for practical reasons, we don't start with the whole course but we take only one less tempting obstacle, if possible. We approach it, the dog sits down, and at that moment, it is rewarded by the "start" command. It starts, overcomes the obstacle, gets a treat or a toy as a reward, and we can repeat the exercise right away, or rather return to a point outside the "tempting zone" after a successful try, and train sitting down without command several times more for treats, before going back to the start. Near the starting line, we reward sitting down by starting and overcoming the obstacle again. In further repetitions, there are more and more obstacles, less and less training for treats outside the tempting zone, longer waiting periods before the start, etc. Sitting beside the owner has become the new code which says: "I am ready", and by further repetitions, the agreement between the owner and the dog is more and more confirmed. It is reliable, and therefore the dog doesn't need to try any of its own spinning and jumping which had an uncertain outcome. But what do we do, if the dog doesn't offer the calm response in tempting zone and starts crazy spinning again? First and foremost, avoid shouting and just don't reward. If the dog has returned to its original habit in the tempting zone, then it was too deeply reinforced. The strong temptation was too much to resist and it wasn't sufficiently prepared for the calm alternative. So you must leave the tempting zone and train the rule again outside. In next try inside the tempting zone, we will demand less from the dog. For example, we won't delay the 'start' command as long as we did the last time. If the dog starts offering its own behaviour, undesirable to the owner, the owner also can turn his back on the dog and say "no", i.e. use the no reward marker. But watch out: as we have described in a previous chapter, the NRM must not be exaggerated, and it must be used only as far as not to provoke other inappropriate side effects. For every mistake the dog makes, we must keep in mind that we don't have reward it. So we have to demand less next time so we can find a reward opportunity.

To have one simple behaviour, so called "zero variant" to which the positively motivated animal can resort even without command, without suffering a loss, is a very useful tool. An desirable opportunity for the animals, and indispensable for the trainer, particularly if the animal is stronger than the person with rewards in his pocket. Let's imagine a seal weighing three hundred kilos and next to him a keeper weighing sixty kilos. The trainer is holding a bucket full of fish. It is obvious that if such huge seal wants to take the bucket by force, it can easily do so. And if you have ever seen two male seals fighting, perhaps in a documentary, you will have no doubt that a sixty-kilo keeper won't succeed by physical force. The seal wants the fish, the keeper has it. "How to get the fish? Either fulfil a task for reward, or bite the keeper. And what if I just don't have any task?" Then the choice could be quite clear and very dangerous. That's why the first thing the seal must learn is to take the specified place at the edge of the pool, if rewards are present, and wait either for fish or for a task. The seal mustn't grope in the dark or try its own variants. This provides the seal with the opportunity to find out that getting the fish by force is surprisingly easy. The moment the seal takes its place on the stone, waiting for a command, tells us several things: 1.) Give me a task, I want

to work and be rewarded for it, 2.) There is nothing I fear, I am ready to eat, 3.) I couldn't see any cue for behaviour, so I am waiting for it here.

Even though this behaviour always signifies the three criteria, each criteria has a different level of importance in different situations. For example if the seal is in rut and isn't interested in eating, there's no use giving it a task before it asks for it (ad 1). If the seal is easily frightened and flees to the water at each slight noise, its jumping onto the stone signals that it has got out of stress and is ready to work (ad 2). If the seal has an appetite and isn't afraid, but doesn't understand the trainer's signals or hasn't received a task request, its resorting to the stone as the safest variant for both (ad 3). That's why I personally use several names for this exercise, depending on the situation's context. „

1. The first step for the animal“, if motivation or stress are in play (1, 2).
2. „Zero variant“, if the animal resorts to it as to a certainty when it doesn't know what else to do.

Although I do personally use these two different names in Czech language, in official animal training vocabulary the name is just one – the default behaviour. But whatever its name, it is one of the most important things our animal partner can tell us during training. And we must listen and respond accordingly. The message from the animal is his contribution to our positive dialogue. Do you remember? We already had CUE - BEHAVIOUR - CONSEQUENCE. That simple triplet was extended to: CUE - BEHAVIOUR - BRIDGE - REINFORCER. And now we are finally complete. Our dialogue with the animal goes as follows:

I WANT THE CUE (animal) - CUE (given by human) - BEHAVIOUR (performed by animal) - BRIDGE (given by human) - REINFORCER (given by human, processed by animal). And then dare to say that animals don't speak with us!

Page 70 – Stories from practise



Brego and Eva –

the big Labrador with a dangerous begging behavior. He jumped all time. Teaching the default behavior “sit” gave him an opportunity “to ask for training through sitting next to Eva”. In this situation we call it the “first step for the animal”.

Page 72 - Fido and Lenka –

Perhaps the most interesting "secret language" I have ever seen was developed by Lenka and Fido. Fido is an eight years old cocker spaniel who had lived in a dog shelter from about three to seven years of age. His history before the dog shelter isn't well known, but it certainly wasn't ideal. Fido shows typical "learned aggression", i.e. sudden aggressive lunges without warning. These usually happen in situations when he doesn't like something. And that "something" is a variety of possibilities - an unsympathetic person, a brush, a floor cloth, hair brush, being closed in cage, and so on. Yes, there are many dogs that don't like such things, but most of them provide us with information about their problem by enacting some clear behaviour such as withdrawing, growling or barking. That's not the case with Fido;



When I met him, he skipped the warning and attacked immediately. Perhaps Fido was punished by his previous owners for "peaceful" displays of disapproval; perhaps he learned, from his perspective, that people understands nothing but biting... we just don't know. But unfortunately, his learned aggression complicated Lenka's life enormously. None of us can look inside the dog's head to see when Fido's attack will occur without warning. Particularly if he lable for an unsympathetic man on one occassion, becomes a label for a woman on another occasion. In different scenarios he approaches other people as though they are his best friends. In our opinion, the latter "friends" were quite similar to the former unsympathetic folk. The motivation for the dislike and the resulting attack took place only in his head. We had the task to convert that information from

his head into a signal readable to humans.

When I met Fido and Lenka for the first time, I had to attribute one huge strength to them - both of them were hard workers and liked exercising together. Fido, an almost eight years old dog, had learned several dog-dancing tricks and basic obedience exercises after just a few months with Lenka. Fido was also strongly interested in rewards. That provides us with a great foundation. We started by getting him accustomed to being stroked by a big guy, i.e. a typical "problematic person". When getting an animal accustomed to something it formerly feared, we must follow its signals and stop in time if the animal ceases to cope with the situation. But we knew already that Fido attacked suddenly, without giving any signal of "I can't cope with it any more". So we proceeded from the other side. Instead of "I can't cope with it any more", we developed the signal of "of course, I'll cope with this". How does it look like? Lenka and Fido are waiting on the spot; Fido is awaiting rewards from Lenka's pocket. I approach them, as prototype of a big bad guy. Fido examines me and knows from former exercises that if he lets me come close, he will get a reward. Now it's up to him whether he feels ready! He has examined me and waves his front paw in the air. That is the pre-learned signal that I can come closer. So I go a step closer and Lenka clicks and rewards Fido with a treat, while I, at the time of rewarding, retreat. Fido has eaten the treat and is looking at Lenka; I am approaching and Fido waves again, to invite me and to get his reward through me. The time of his waving, i.e. of "the first step for the animal", tells all of us: "OK, I know what will happen, and I am ready!" I mustn't get too close, but only adequate for him to cope with it. I come closer and closer in each further repetition. And Fido gets not only a treat as reward, but also my withdrawal, i.e. calming and feeling of safety.

Fido has understood the play quickly and seems to like it. By the end of the third ten-minute lesson, he is waving like crazy, and I could not only come closer but could even touch him and stroke him all over his body. A lot of friends were queuing behind me; after Fido's waving, they too came closer and stroked him.

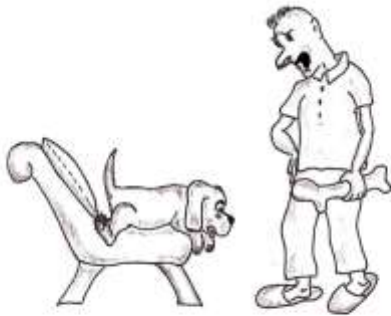
At our next training, we made use of Fido's "first step for the animal" his paw-waving on a broom. Previously he really hated the broom and bit not only the broom but, at home, even

the hand that tried to sweep up with the broom. Fortunately, the broom irritated him only when it started moving, while a standing broom left him quiet. So Lenka put the treats into her pocket and grabbed the broom handle. Fido looked at her mistrustfully for a while, but then waved his paw telling her that he would cope with this. "Broom", Lenka announced and moved the broom twice slightly on the floor, then clicked and rewarded the dog. Fido has eaten the treat, looks... and sees Lenka with the broom. He is an old hat at this already and waves his paw signalling that he will cope with this. "Broom", Lenka announces the start of the move, and this time the broom moves longer on the floor, and continues to sweep up the whole room.

Yes, on several occasions, it did happen that Fido didn't like the moving broom or the stroking person, and growled quietly. "Whoopee! We like quiet growling much more than an attack without warning. Fido started speaking, and we knew that we mustn't miss this!" Therefore we didn't shout at Fido to be quiet, but only stopped the irritating cause, without rewarding him. The person stopped stroking, the broom stopped sweeping. For future training, we know that the difficulty degree we had requested of Fido had been too high and that we have to make the task a degree easier in next exercise started by Fido's waving. "You have the right to stop it, if you don't cope with it; you only won't get any reward that." So the whole lesson took place on a purely positive basis and Lenka and Fido developed a sophisticated dialogue similar to the dialogue of war reporters. Fido sits down in front of Lenka = I want to work. Lenka takes a broom = we'll sweep up, do you feel like coping with it? Fido's waving = signal received, of course, I'll cope with it. "Broom", Lenka announces to him to indicate the start of the action, and starts sweeping, while Fido is looking quietly at her. At a specific moment, Lenka stops and clicks = you have coped with it nicely, you'll get your reward and I'll stop sweeping.

We trained the broom dialogue shortly before Christmas. On Christmas eve, I received my first Christmas present. Lenka let me know that all the Christmas cleaning had taken place without a raging Fido needing to be locked in the bathroom as had formerly been the case. He generalized the "broom" signal also to the floor cloth and to other cleaning utensils. You cannot tell me that you can't teach an old dog new tricks.

#### **IV) WHAT IF HE DOES NOT WANT TO?**



*OK then, I accept your getting up only in exchange for a big beef bone, but you really cannot ask me to pre-chew it for you!*

*F. Sants*

(This chapter is about different motivation techniques for positive training without the necessity of controlling the resources of the animal. Emphasis is on the rhythm of the training dialogue, step by step and so on. The chapter is compared to “selling goods”)

**"Good morning sir. Have you bought things for more than 200 crowns in our department store? Have you?! Well, in that case, you have earned a promotional discount on our special delicate sausage. And your discount can be even higher, if you succeed in drawing a red card from our lottery drum... that's incredible, you have won!" After several minutes, I am standing in front of the department store, having spent several crowns more and holding a sausage that I actually don't like much and that I wouldn't have taken even if it had been offered for free at the exit. So why have I bought it? Because it was given "as a reward" for my preceding purchase which exceeded 200 crowns and for my miraculous drawing performance. In short, I fell prey to one of many motivational techniques, and if I was an animal and the seller a trainer, this would have been classical contrafreeloading.**

If we start to motivate any animal species with the help of rewards, we inevitably face situations when the animal isn't interested in the reward. Such situations are more frequent in herbivores and omnivores whose food grows everywhere around them. A horse standing on the grass stops paying attention to treats in our hand, a pig walking through the ploughed soil digs in the soil and definitely won't lift its head to see if it could get a carrot. But even a carnivorous dog can suddenly be more interested in the smells around him than in our rewards. The automatic human reaction usually looks like this: grab the animal by the halter or the leash, take it away from the given space (in case of the pig, pull it away with quite an effort), and before the next training session, let them get a little hungry so that they pay attention to the treats we are offering them. Also, primarily, not let them go to the grass or to the ploughed soil where they could find their rewards by themselves. But I don't consider such behaviour to be the best solution. Let's imagine myself in the department store again, close to the sausage seller. I am heading towards the shop department because I need new shoes, but the seller block my way and tries to hand me the overpriced sausage. I bypass him and keep heading towards the shop department. The seller shouts: "Just you wait!", throws a lasso on me and pulls me to a small room in the background, leaving me to get hungry. Then he lets me out, quite far from all other tempting shops, and shows me the sausage, expecting that I'll pay for it now and take it with thanks. But is his expectation correct? Probably not. First of all, immediately after being let out of the cell, I'll try to escape that madman, and next



time I'll bypass his stand so that his lasso can't reach me. If I can't escape or if I am really hungry, I'll go and take the sausage. But, hunger is hunger and I am two meters tall, so I definitely won't pay the man for it! I'll use his own rude methods - I'll knock him to the ground and eat everything from his stand, without paying! And if I succeed in that, perhaps I'll start to like his stand! Perhaps I'll really start going to his stand to get sausage for free, if I know that I can push the man around and eat from his stand without paying. By the hunger, he provoked aggression in me, and the aggression has paid off to me - so what can he expect? The situation I have just described resembles the enactment of a war drama. But let's replace us with an animal and the seller with the animal's trainer. Is it so difficult to imagine that a strong animal, motivated by hunger, aggressively seizing the rewards. Or if not hungry enough that it will run away and stay out of the trainer's reach.? That's one of the reasons why making the animal hungry is not a good manner to motivate it for positive training - in the end, many animals are stronger than we are, and their intelligence is greater than we think.

So how could the seller sell me the sausage, that is, create the "customer pays" behaviour using the reward in shape of an "unpalatable sausage", even though the reward is not that attractive? In the first place, he did let me take the first step. I completed a very easy action (a purchase of more than 200 crowns) by myself and the seller rewarded it (by providing me with the discount). "Hey, that was easy," I think, and as the discount isn't anything binding, only an offer that I take or refuse, nothing prevents me of my own volition, from willingly trying another behaviour - i.e. the lottery drawing . As the lottery drum probably contains only red cards, I win quite easily, and the seller rewards it with another pleasant, although unbinding reward in form of an even higher discount. We start playing the game: "I offer a behaviour - the seller rewards the behaviour", the demands increase proportionately to my activity and abilities, and suddenly we reach the goal: "I pay (behaviour) and get the sausage (reward)". Notice another aspect - if the seller says: "It is compulsory for you to make use of the discount" in the course of our actions, he will probably frighten me and I will leave him. Everything works only because the discount was an offer, an opportunity, a choice to take or not to take. I was free to make the decisions until the last stage. This means that when you find me paying for the unpalatable sausage, I have the gratifying feeling of "I have managed it!".

77 – Who offers first step? (about the right positive training dialogue, which starts from animal, not from trainer – the words “I want to work”. Explaining of contrafreeloading, behavioral momentum, good increasing criteria in successive approximation...)

80 – The magic of competition (the technique “training in competition”, the dangers and limits” compared with an auction)

81 – If he does not want the reward, try a better reward (about difference between reinforcing and bribery, compared with human life and corruption ... the training for reinforcement requires the behavior before the achievement of the reinforcement. The bribery has the reward first to inspire the behavior, the same as in the case of corruption... Explaining using of jackpots, differential reinforcement, variable reinforcement schedule)

83 – Never ending chance is no chance! (about the “short window of opportunity” principle, resp. limited holds of reinforcement)

86 – First step for the animal (once more the using of the default behavior to say to the trainer “I want to work”, here from viewpoint of working in stressful environment and giving the animal chance to say “I am OK, I can work”)

"I don't care if it can or can't be made, you'll produce the ordered item, or else I'll fire you!" the nervous boss shouts. "But you should care, if you want to be the boss!" the lathe turners think and devise ways to avoid losing their jobs. Maybe it really can't be produced. But how should a boss who has never worked at a turning lathe tell whether the turners make excuses or whether the task really exceeds their capacities? The thing is that the actual truth is known to them, not to him. If the boss wants to discover the truth, he can insist on the task, fire the turners for nonfulfilment and hire other ones, give them the same task and fire them after a couple of weeks too... By firing a sufficient number of turners, he will verify experimentally that the first group of turners actually didn't make excuses. Or he can learn to work with the turn, and then he'll know by his own experience whether the employees are jerking around. The third option consists in setting aside a premium for production of the exceptional order, and offer it to the group for some days. The first turner who asks for the task confirms that the task can be fulfilled, because he knows better than his boss what can and can't be done at the turn. But upon fulfilling it, such an employee must get the promised premium, or else it won't help next time. For the future, the boss knows where the turner's actual potential is, and what is important, he has taught the turner to ask for work. So he has created the correct behaviour-reward rhythm.

Notice how easily we can land in a similar role of the boss who "doesn't care" when working with our animals, even with the best will and effort to sense the animal's needs. Human simply isn't animal, and the animal's view of the world is not a human view. "I don't care that you have much better hearing than me, can smell a thousand times better than me, that you are able to sense vibrations on the ground... and that airplanes have started landing at a new airport some kilometers from us today. You have to follow the target!" Similarly to the non-turner boss, we are never able to perceive the world through animal senses and to filter it through the experience of the animal we are training. And following a target in quiet environment is a completely different task than doing it when an unknown smell, horrifying vibrations or permanent ultrasound are distracting the animal. The boss can learn to work at a turn, but we can never achieve the animal's capabilities and perception. So what is left to us, from the three options above? We can scientifically verify by trying out the training on a sufficient number of the same species of animals to ascertain whether the task can be actually fulfilled - and, similarly to the turners, there will be a great number of animals that don't manage it. Or we can watch carefully to see the moment when the "turner has asked for work when he senses the possibility of a reward", i.e. the moment when the animal announces "I am ready".

We have already spoken of the "I am ready" signal. It has completed our dialogue with the animal to I WANT THE CUE - CUE - BEHAVIOUR - BRIDGE - REWARD. The moment when the animal asks for an activity is very important from the perspective of its motivation.

It demonstrates to us that it is able to manage the potential request now.....*in the rest of chapter is similar idea as in the section "I am ready", this time from the perspective of motivation*

Page 88 – Summary (mostly about the idea that you do not need to control the animal's resources if you want to maintain R+, there are many other possibilities to successfully use R+ without having this control)

Page 90 – Stories from practise

### Arni and Zuzka



When I met Arni for the first time, he was a little more than two years old. A beautiful black and white border collie who differed from the standard image of that race by his very weak motivation. At the first lesson with his owner, Zuzka, Arni would always do one or two exercises, and then flee to the other side of the room with his nose on the ground. Generally, he seemed nervous, almost timid, and his entry into the training room looked like pulling a log on a rope, while the log was trying to slither away. He allegedly hadn't always been this way. Originally a curious puppy, he had enjoyed the training, but gradually lost the zest. The cause could be that Arni had been to several different training centres, not all of which

exercised completely positive approaches. From the age of eight months, his attention span while training decreased. He also had no interest in the treats or toys. He allegedly didn't actually eat much at all.

Arni's mate, Cliff, gave me a completely different impression. That blue male, more than one year younger, was exactly the picture of what you expect from a border collie – assiduous and diligent. He didn't take his eyes off his owner. Both dog friends were placed into their cage, and after some time, we tried training for treats with Arni. As we expected, nothing to shout about - he spent the most of the time sniffing, and his energy when exercising was minimal. We put Arni back to in the cage and took Cliff out. Great exercise with a cheerful active dog. But something curious happened. When we were halfway into exercising with Cliff, Arni started barking in the cage. Did he want to join us? "Which of them is dominant in the pair?" "I don't feel any of them behaves in such a manner," Zuzka said. "Dominant doesn't mean that they trample the other down. Dominance is a matter of agreement between the two animals, and it needn't involve fights at all. For example, if you put one feeding bowl on the floor, who of them will be the first to eat from it?" "In such case, it will be Arni; Cliff will give him right of way."

And that finding was the basis for our plan. Arni is the dominant individual of the pair, although his passive and timid behaviour doesn't suggest it when he is in training. So if Zuzka is joined by the two dogs and wishes to train them at the same time, Arni must have priority -

more tasks, simpler tasks, more rewards. The question is, how will she arrange that both of them wish to work, if Arni to date has only run around sniffing? We'll make use of the first moment that Arni asks for work. That moment has just come. Arni started barking when watching the session with Cliff. So we'll "start Arni by using Cliff". I admit, it isn't ideal and reeks of "bidding against don Corleone", but the dog guys are friends, so they won't fight, and the main thing is that we do this only for the beginning. For the one, important, Arni's first step. So, in methodical terms, we will use competition in the first step for the animal, and later contrafreeloading, short opportunity windows, jackpots, in short - everything we can. We began with the following situation - the timid passive Arni is in the covered cage, the active problem-free Cliff is exercising with Zuzka. After several exercises, Arni barked in the cage. We let Arni out; he immediately sits in front of Zuzka and she reacts by giving him a reward for coming, then another one, and continues with other very simple tasks, rewarding them immediately after fulfilment. Cliff bears his "being left out in the cold" manfully, or rather "lets Arni eat", similarly to the situation with one common bowl. But of course, Arni's motivation cannot last forever, and so, after several rewards, he flees to the other side of the room to go sniffing. We don't mind, this is positive motivation, so if he doesn't work, it's his problem. Zuzka continues exercising with Cliff, and suddenly, Arni is back. The situation repeated itself, and this time Arni stood longer, mastering even several more difficult exercises. To prevent Cliff from feeling ignored, he also gets simple tasks, and gradually, they start exercising alternately. A principle is introduced that when Cliff exercises, and that is Arni must have another task at the same time that is much easier than Cliff's task is. So Cliff makes dog dancing steps, while Arni is sitting on command. As soon as Cliff finishes dancing, Arni is the first to get a reward for sitting, and only then is Cliff rewarded for "dancing". When Arni was exercising, Cliff didn't need any command. As the second member of the pair, he respectfully waited for his turn to come.

In the next repetition, we managed to Arni and Cliff out of the cage at the same time. In the third round, Arni set off by himself. He learned one important thing - to ask for work by himself and to know that exercise and rewards are up to him. Nobody waits for him and nobody will try to persuade him. "If you don't want to, there are others who do. If you do want to, ask for work by sitting down in front of Zuzka, and you can rest assured that she will appreciate it and that you'll get tasks and rewards that are coming to you."

After a week, Arni arrived at the training without any problems. Soon he managed continuous lessons taking up to 15 minutes and more, which is "normal" for a border collie, but a great accomplishment for Arni. Today, after almost a year, he is able to manage an hour, and he keeps improving, because we have found a common agreement on a positive path with Zuzka and we reaffirm it every day.

## **V) JOURNEY TO THE CENTRE OF...REINFORCER**

(All the chapter is about primary and secondary reinforcers)



*Hey, How can I focus on my training when you keep clicking that thing for every little thing I do?*

*© Sassa*

**"When the last tree is cut down, the last fish eaten and the last stream poisoned, you will realize that you cannot eat money." These timeless words of the Cree Indian tribe tell a clear unvarnished truth and hurt the heart; and that's why they constitute the motto of many environmentalist activities to this day. But they, unintentionally, define also another great truth, the time essential to animal training. The truth that "without the support of the primary reinforcer, the secondary reinforcers lose their meaning."**

Page 96 – An organism cannot live on food alone (about the amount of primary reinforcers. Includes the fact that “control of the environment” is one of the primary reinforcers)

"You mean that our praise acquires its value only because of the food the dog gets from us?" the reader could justifiably ask. And if I answered "yes", I would be not only taken for a fool, but I would degrade the life of all animals to mere dull reception of food, water and appropriate temperature. But not everything depends on food; so my answer must be: "No. The handler's value in the dog's eyes is not related to the amount of treats the handler gives him and whether he provides him with dinner." Because metabolic needs don't constitute the only primary reinforcers. Control is a reinforcer that is as important to water, food, appropriate temperature and air. Control not in the sense that the animal wants to control everybody and everything around it. Not control over the others, but control over the environment, which we could partially, although not fully, substitute with the word "safety". The primary reinforcer of control is what forces us, the people, to accumulate savings, to pay insurance and to educate ourselves..., all that "just in case". The primary reinforcer of control was probably the impulse that forced me, when I was young, to accumulate medals - in order to look at them and to say: "Yes, I have achieved it." The primary reinforcer of control is actually the "need to be versed in events around oneself, to grasp them and to know that I am able to survive, or to succeed in them, respectively. If a puppy, when brought to a new house, takes up a position so that it can see the movement of all persons in the home, it is fulfilling the primary reinforcer of control. It may play out in different ways. One puppy may retreat to a corner where it has his back protected from two sides to enable him to calmly watch only the space in front of it. Another puppy may hide behind the legs of a specific human. Neither of them does it to eat well, but to be sure that in the new environment, it is able to notice everything that could constitute a problem. It has created a safe place. So, they fulfil their need of control.

It is sad to observe how often we forget that basic need when training dogs and other animals. And it is even sadder if we interpret some displays of that need as dominance and try to

prevent the animals from exercising their need to feel in control. Until recently, "wise books" advised even parrot owners: "Don't let a parrot sit on a perch higher than your eye level. You would give it the alpha position in your group and it would start attacking you." It was also advised not to put parrots in high up spaces where they could have a good view of the environment, because that belonged only to the dominant alpha individual. However, nobody considered that a parrot is even more focused on visual perception than a human is; that it can see sharply even the smallest details at a great distance, and that, as a flying animal, it has completely different idea of distance than we have. From its perspective, each point in the sky can represent a bird of prey that, thanks to fast flight, can get very close within a couple of seconds. Therefore, to a parrot, even things that are several hundred meters away play a big role... but it must have good view and it must have a place to hide! If it does not have a good view and has no place to hide, it has no control of the environment and cannot feel safe. And if it isn't safe, it won't have an appetite and thus it will have a very good reason to be in a "bad mood". And, logically, it will take out that mood when in relation with the human who has deprived it of the control or safety. So, the result is a parrot that doesn't sit higher than human and doesn't do things "relating to the alpha individual" according to books. However it definitely isn't a calm pet. It even may peck you from time to time. "It probably is still dominant," the human thinks and, according to the "wise book", restricts the parrot even more. At that point, if the parrot relates the human to its restriction, the human loses any remaining value to the parrot. Not because he doesn't give it enough grains as reward; but because the bird is permanently frightened so wouldn't take them anyway. The human has lost his value by denying the parrot its basic needs. Dear dog keepers, doesn't this story sound familiar to you? After all, wise books on raising puppies include more than a fair share of examples of "dominant displays", and very few people think about why the dog used the behaviour in question. Perhaps it has another motivation. To realize its need for control. To deny the dog the possibility of control of the environment means denying it one of its basic needs. Lack of food, water and appropriate temperature is perceived today as cruelty to animals, but lack of control is often considered a tool for correct upbringing. Even in human society, loss of liberty (i.e. control of environment) constitutes the basic part of the criminal system. And even the prisoner has some degree of control in the prison - there is fixed regime upon which he can rely and in which he can find space for "his certainty". Please, grant your dogs at least this basic luxury.

Page 98 – The need isn't bad, only some paths to it are bad

(text that the same primary reinforce can be saturated . Problematic behavior for us is just one these results. We can teach the animal another way to the same primary reinforce)

"Hey, you want to say that I should let the dog growl at me, because it ensures its basic life need in that manner? And what about my own rights, damn it!" Yes, the attentive reader could ask this question. But nobody states that basic life needs can be obtained in an arbitrary manner. Then it wouldn't be possible to punish a thief for a theft if the thief was simply trying to obtain essential resources... The primary reinforcer itself isn't bad, but some ways towards its fulfilment definitely can be bad. There is big difference in whether the dog obtains food by waiting at the bowl and exercising for treats, or by opening the fridge or growling over the food. If a company employing one exceptional specialist suddenly hires another one, the first

one, unbeatable till now, sees an acute need to obtain control. He isn't so unwavering in his position any more. To re-achieve the lost primary reinforcer of control he has a number of options. Perhaps by gaining an improvement of knowledge and so exceeding his new colleague's knowledge. Another option is that by agreement with the management there is a division of roles to avoid mutual interferences. A third possibility is by having faith in his abilities and thinking: "So what? It's all right." Of course, he also can defame the colleague shamelessly and conspire against him behind his back. In all cases, his goal was the same thing - regaining control. But he was a knave only in the last case when he resorted to defamations.

The above stated stories tell us that we shouldn't deprive the animals of their basic needs. But on the other hand, it would be foolish to accept all mannerisms they may use to obtain them, such as annoying or aggressive displays. When these moments occur we must remember that there are a thousands of methods that can lead to each goal, and thousands of secondary reinforcers can be associated with every primary reinforcer. So let's direct our offender onto the right track. There are various techniques available that enable us to correct unwanted behaviour, and we will learn them in more detail in one of the chapters at the end of this book.

Page 99 – “The way can also be the destination”...the behavior can also be the reinforcer (that particular behavior and the chance to exercise it can be used as a secondary reinforcer)

Page 101 –Children forever

(my own opinion and arguments against the system “Nothing in life is free” (NLF). There is an idea, that domestication of dogs is partly done by stopping their mental development when it is still in a childhood state – compared to wolves the dogs remain all their lives like a little “wolf puppies”. These puppies are dependent on their “parent’s opinion”. This dependence on the owner we can use to saturate the primary reinforcer of control in the same that children saturate this primary reinforcers by making parents happy .....If this idea of domestication through stopping the dog in the “forever child” is right, we cannot orient their lives and work only to food rewards. The “Nothing in life is free” system on dogs can be compared with the hypothetical absurd situation that we would use the NLF system on children. Controlling their resources and so on.....this is not easy to summarise this chapter.,This is very popular chapter for many dog trainers who agree with me and do not like the NLF system.

107 – Stories from practise –  
Šája and Pája.

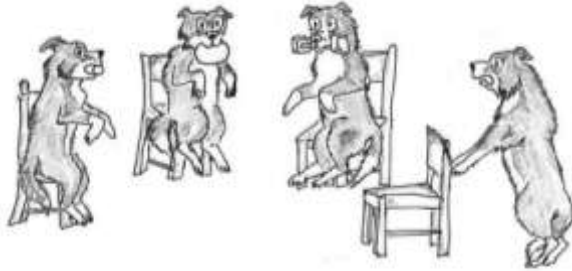
Story of a “pseudoaggressive dog”, who’s aggression was in fact reinforced by the inadvertent cue which was delivered after a well-trained behavior (secondary reinforcer) and final reward (primary reinforcer).



## **VI) THE FEARS AND DESIRES**

(This chapter is probably the most important one from all the book and this is why we translated it full.

**Did you like Christmas as a child? Who didn't? I loved Christmas of course. It is a**



*Hello. My name is Border Collie and I am a success addict.*

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**Czech custom for us, to have a bell announce the arrival of baby Jesus. I remember waiting with anticipation for the sound of that bell. The never ending moments as I listened out for the signal. Once it rang it meant it was time to go to the Christmas tree to unwrap our gifts. I personally hated**

**those moments. The whole time I was waiting for that bell my stomach was trapped with a nervous feeling of anticipation. Once the bell rang, the stress of anticipation suddenly disappeared and we all went for the amazing reward. So looking at this from a behavioral analysis point of view, our anticipation was finally "positively reinforced". But the stress beforehand was something terrible. So for all of us that have experienced this type of excited anticipation, similar to what I felt at Christmas time here is proof that positive reinforcement can also be a very stressful experience.**

Stress is a natural state of the body, which affects every creature, including man. Consider the feeling when the doors of the bus that was to take us to work on time exclude us when they shut right in front of our faces. And just before your examination when you can't remember anything that you've revised up until that point. The moments when a mother of three is trying to finish the family's dinner and one of the little ones is constantly under her feet near the hot pots and the other two are talking to her non-stop. There is a possibility of some potential threat in these three cases– will I get fired from my job? Will I fail my exam? Will my child burn itself on a hot stove? In all three cases there is an objective reason that has created the stress – The bus arrived early, the examination is imminent and our child is just not listening to us. Our organism, the human experiencing the stress must rise to the occasion, pump the body with adrenalin to give the legs strength and create a supercomputer out of their brain to help them to solve the problem. Once it is all over then they can collapse. Or

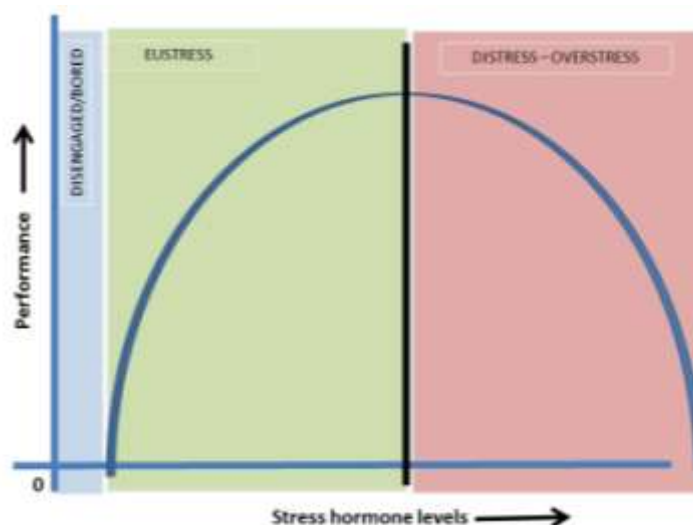


break down before it's over – which is tantamount to a turbine engine running out of fuel or the supercomputer overheating.

### Up and down

Stress is little bit like being on a swing. First the animal that is under pressure is doing well and coping with the situation. As a result of the stress, its muscles work better; its reactions are faster....stress gives you wings. Once the phase of great performance is done, then the performance slows down. Muscles are no longer capable of the required performance and the head fails to provide a single rational thought. At that moment, the animal is just happy to be alive..., as sometimes it ceases to exist due to the overload of stress. Then there is the breaking point when the animal's condition is going downhill. It can go so far that the pressure is so chronic or overpowering that the animal has realised the problem too late (In human terms, for example. a student has forgotten about an exam that is to take place the next day)..Basically it's all a bit too much!

These two phases of stress are described in the Yerkes-Dodson stress curve aka Yerkes-



Dodson law. The first phase is when the animal is in a state of boredom and neutral performance. When under pressure or stress, the animal recovers in the short-term. This phase is called eustress. This is natural learning. Something that we live with for most of our lives. It is what drives us forward. Eustress is something that we or

even our dog can enjoy – perhaps playing or racing or participating in adrenaline activities such as bungee jumping. Adrenaline sports are named after the hormone we call adrenaline. This is the first hormone we produce when we're stressed. It is produced in the adrenal glands after they have received the stimulus from the hypothalamus and pituitary gland. The adrenaline then directly affects most cells in the body. Because it increases blood pressure and speeds up the breath, the body begins to sweat. The cumulative effect to the animal in question is that it "really feels alive." After all, it is often the first response of the real "adrenaline freaks": "I only feel alive when faced with death!" "Maugli loves pulling death by its beard" says Kipling's hero in age when his hormones are all over the place and he during

his adventures tries to live on the edge just for the sake of it. However, a condition to face death and really living on the edge is not to fall on the wrong side, and not to lose control. If you lose control, then you can't face the death, but you fall into her arms. And that's not a nice feeling.

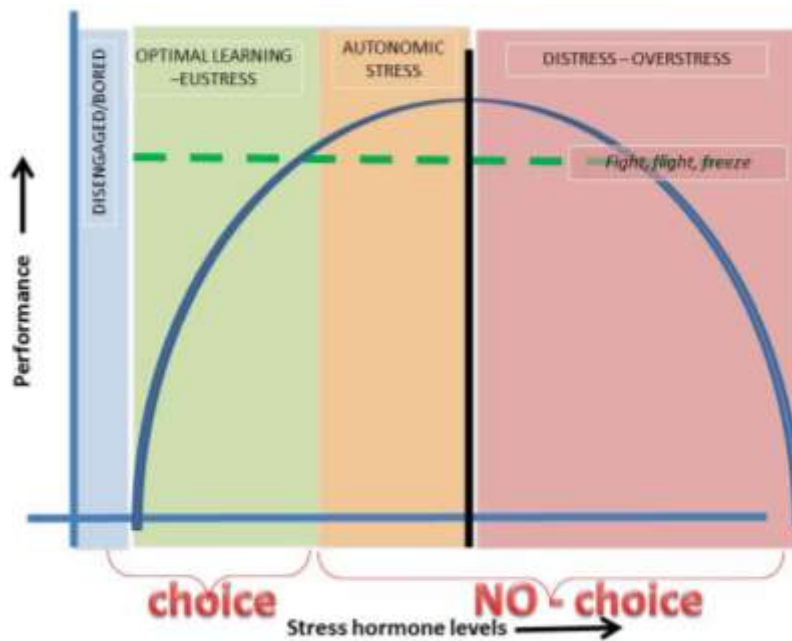
About the same age as Kipling's Maugli loved "pulling death by its beard", I went with my friends into an entertainment centre in Italy to enjoy some extreme activities. There was a huge high roller coaster made out of just metal and some wood. Not much more to it. I thought to myself that if it was so dangerous they wouldn't let people onto the structure. So of course I decided to go for a ride. My control of the environment was based on my trust of the people that had built this roller coaster. As I sat down with my friends in the roller coaster trolley I noticed that for some reason they had built wooden planks just above the trolleys. I am a tall guy. The planks were in my headroom. I was reconsidering my decision to do the ride. But it was too late. We were on our way. I'm thinking "oh crap, did the Italians not realise that there may be some taller people who may this?" So the ride goes on and on, one plank of wood after another, me ducking as we go. The planks threatening to break my head. If someone has fitted one plank of wood a little lower than the others that would be the end of me! I'm trying to duck as low as possible but I can't, I'm trapped. Guardian angel where are you? And the ride goes on and on with the beams narrowly missing slicing the top of my head, all I can do is pray that they are all the same height. In retrospect I realise that there was plenty of space above me. But I'd never repeat this experience. The helplessness, The fear of something that I cannot avoid. And my total dependence on the skill of an Italian laborer, who I don't even know. That feeling has positively punished my willingness to participate in rollercoaster rides to this day. My original plan was to go as fast as possible on the roller coaster with the confident knowledge that I was safe. I wanted to scream with excitement along with my companions. I intended to enjoy the ride, and my blood pressure would increase, adrenalin would pump through my body and at the end I'd say: "What a ride!" In other words – I was going to have an amazing eustress experience. But a different situation took place. The moment I realised that my life was in danger I first tried to avoid the wooden planks. Because I was on the ride, I could not stop it, so avoidance was not possible. I was officially out of control, dependent on the mercy of fate, under the pressure of something that I could do nothing about! At that moment, the amount of stress hormones in my body grew disproportionately. My body could not handle the load. I was "distressed" as a result of a cascade of other hormones, some with mysterious acronyms such as CRH and ACTH as well as cortisol and glucocorticoids. And that's the problem. While a short-term increase of the

stress hormones helps the organism to thrive, a persistently high level of stress is downright harmful. Physiological effects include a loss of muscle strength, metabolic disorders, and a greater susceptibility to infections and cancer. If distress persists animals and people become so debilitated that the battered body may even succumb completely and then there is death. That of course didn't happen to me, except that instead of saying "What a ride" what came out of me was "That was terrifying!" And instead of going for another ride, I needed a drink to help my body to get rid of all the hormonal products of stress. The results of distress are much harder to get rid of than a little bit of adrenaline from a safe ride.

So at this point let us consider the roller coaster to our dogs. "Well nothing's happened to him so what is he afraid of?" I hear this sentence all the time. The owners are often in despair because their dogs fear loud radios, car rides and firecrackers on New Year's Eve. "How is it that he is afraid of gun shots, even though he was never shot?" As with the roller coaster example, a punishment with the animal experiencing fear is still a punishment which will then create the behavior. I have experienced the ugly uncomfortable feeling of distress as a result of sitting on the plank rollercoaster. In order to not let that feeling overwhelm me and deter me from future rides I had to sit down and say to myself: "It was ok, the planks were high enough and nothing could have gone wrong. Every roller coaster has to be properly checked to assure it is safe." I said it to myself calmly, at the times when everything was already behind me. Once I had rationalized this to myself I was able to move onto another ride while saying: "Let's do this again". To this day however, I still always say to prime myself at the start of the ride: "It's ok, the planks are high enough. I have checked it myself." Because I can rationalize this logically, I am able to participate. Unfortunately our dog cannot do the same. When there is a loud noise somewhere, it can't rationalise and say: "There was a loud bang out there. I felt scared but nothing happened to me." The fact is, something did happen. What happened was, that he was frightened and he will not analyse the situation. So next time he is probably going to experience even more fear and this is going to go on and on...becoming fear of the fear. The quote: "The fear feeds itself" is a perfect quote to describe this.

How do we escape the enchanted circle of fear of fear? Let us have a look at the Yerkes-Dodson stress curve once again. In which phase of the stress graph do we want to stay if we want to productively teach the animal anything? Only in eustress of course. In this phase the performance is optimal and the animal feels pretty much in control. Within eustress, performance is always on the increase. The moment the creature ceases to "feel" in control "It flips". On our chart, we plot this just below the top of an imaginary hill. That is the

moment when the performance of our dog is at its maximum. The owner/trainer usually does not know where this point is. “He flips out as soon as he sees the decoy with protective sleeves at the training centre”, “He flips out as soon as he sees another dog behind a fence”, and “He flips out as soon as he hears a shot”. “Flipping out” is the moment when the stress element causes the dog to stop following the owner’s commands. The point when the dog’s muscles are stretched and the dog starts a fight, or it runs away or sometimes freezes. Fight or flight or freeze! Let’s mark the spot right under the top of the stress curve as FFF.



Once our dog has crossed into distress, it has learned to fear and this is learned at a physiological level. To prevent this learning, that is, to learn that something is not dangerous, it cannot cross the threshold of eustress into distress. It can also not cross the FFF threshold. But who actually knows where the FFF threshold lies? How can

we know how high a particular animal’s stress curve rises and at what point in our training on the stress curve is our dog’s physiology? We cannot tell what our animals are thinking never mind what their hormones are doing. But there is one creature that knows. And that creature is our dog. Only our dog can give us all the answers. We need to provide the means to help our dog to overcome stress

Imagine a dog that is afraid of tall men. We are not going to solve where that fear comes from. We need to get rid of the fear. A tall guy (like me) is called the Stressor, i.e. the stimulus causing the stress response. The dog in question is with its trainer on a lead. Where the dog sees a man at a great distance, it does not pose a threat and there is no reason to stress. However, when the tall man starts getting closer the feeling of threat grows – the power of the stressor is growing stronger. The adrenaline starts pumping in the dog’s body. The pulse rate rises and the blood pressure increases. The muscles are set to flight. The man is getting closer, and stress continues to increase. The man is now so close that the dog is not feeling safe. The dog tries to back off just slightly to decrease the stressor – the presence of the man. However, the lead does not let him. And that is the dog’s main problem. The dog is

not in charge of its own safety. The sudden loss of control deepens the stress, the body is overwhelmed with a great variety of different hormones. On the chart, the performance of the body is at its highest. The dog tries to escape the lead. He is trapped and is fighting for his life. That is what is going on in the dog's mind. He doesn't know that this is not the case. It's actually quite similar to my experience on the roller coaster in Italy, where I try to duck out of the way. At that moment the dog has crossed the FFF threshold and stopped listening to the commands of the handler. He has no faith in the handler's ability to look after him as the handler is holding him in harm's way. The dog's nervous system commands him: "Flight, Fight or freeze". The flight fails so his next instinct may be to fight. If the dog fights and the tall man then stops coming towards him or retreats, there is a strong possibility that the dog will have learned to always attack when on the lead. This because the behavior of preventing the threat from coming closer was reinforced. This is what we call the negative reinforcement of the dog's attack because the fight – according to the dog – prevented the problem from coming closer. Another scenario could be that the dog does not attack or run away but will freeze. He will start to breathe heavily and maybe even tremble a bit. He stands in one place as if he is frozen. "See that's not too bad" says the tall man as he strokes the trembling dog. "The dog has finally understood who the Alfa male in the pack is", says someone from a foreign reality TV shows. However, the dog has not understood anything! His reaction is hormonally charged. The dog has reached the highest point in the curve and is going into the distress phase. It is experiencing the same range of emotions I did while on the roller coaster. This comparison is more appropriate than you would imagine. When the dog needed to back up, he was stopped by the lead and it became impossible for him to relieve the pressure of the stress. So suddenly he felt - "I am in trouble" without any possibility of controlling the situation. At this point, the high level of stress he is experiencing is not stimulating him but destroying him.

#### The four questions we have to answer

In order to ensure the animals do not cross the threshold into distress, they need to be able to answer four questions. Question number one relates to the animal having the power to stop the stress. What did the dog need when he came face to face with this terrifying man, to prevent him from crossing the FFF threshold? He needed a way of saying STOP. To be honest, he did have the way. He wanted to run away. This would have decreased the stress. But his lead would not let him, so the STOP method was impossible. Furthermore, his owner then stroked him while he was experiencing the unpleasant distress phase, the association of

the person and the experience are now paired. This further increases the potential for the dog to be stressed as he now loses faith in his owner,

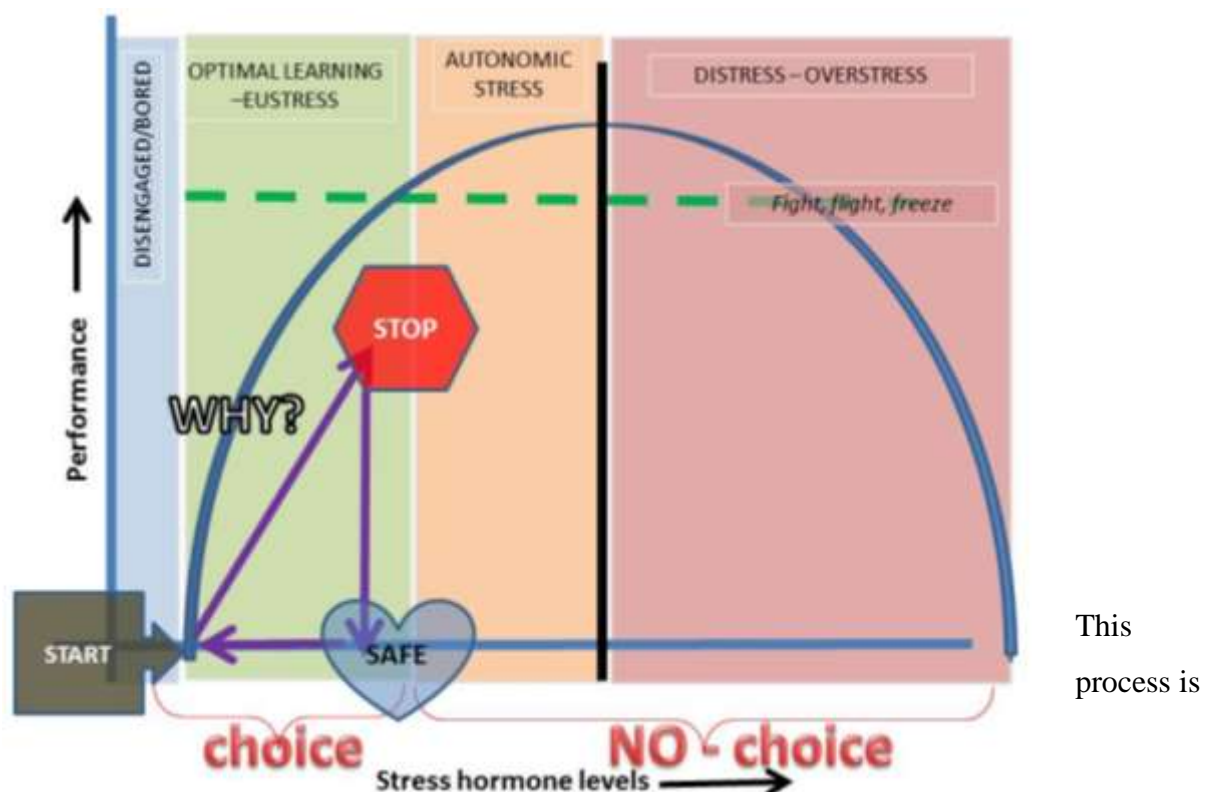
There are better ways of communicating with the dog that will avoid the distress phase.

Let's give the dog the means of informing us where he is on the stress curve. This is the kind of exercise we often practice at the dog training centres and it works. The dog that is afraid of tall men is placed with his owner at a distance from the rest of the group. The distance has to be enough to stop the dog being scared and the power of the stressor needs to be zero. Before any other activity, the dog will be rewarded every time he looks at his owner. This is repeated a few times. The animal then constantly keeps looking at the owner. Why wouldn't he, there's no threat so that's a good time to have a snack just for staring. The timing of the food reward is once there is full control in place. At this point, the trainer indicates with a pre-planned signal to the "tall man" who then begins to walk towards them. As he is approaching the stress of the dog begins to increase. At this point however the stress is not enough to distract the dog from staring at its owner and the dog continues to "look for snacks." But now the problem has arrived! The tall man is now only two steps away and the dog has turned around and is facing him. The dog is only watching him, he's not growling nor is he backing up. At that moment, the tall guy stops and the strength of the stressor stops increasing. One look at the tall man was enough for the dog to command the STOP. The man stops with just a look! There is no need for the dog to flee in this case. And... Great, here comes the snack! The dog turns his head towards its owner that keeps rewarding him. At the same time there is a much bigger reward – the unpleasant man has gone further away so the dog has not only been rewarded with a snack but also with control over the situation. This is what the dog really cares for. The stressor is now zero and the dog is now safe with its owner in whom he has faith. The situation is relaxed. The SAFE PLACE where it is possible to relax and where there are no scary things, that's the second question that the animal has to answer.

Why is there a need for such a safe place? Safe haven is a huge thing and has a great meaning in these critical situations. As far as I know even important buildings such as embassies are equipped with so called panic rooms where it's possible to hide a protected person in case of an emergency. Panic rooms are always planned by body guards who are taking care of politicians when choosing their activities. A Panic room is always equipped for easy defense; it has storage of water and non-perishable foods "just in case". The majority of all panic rooms are never used but they are always planned for 'just in case'. The knowing is the assurance. If I wanted to use it I could! Safety is a biological need. Therefore the SAFE PLACE is the primary reinforcer of control.

Let's get back to our dog. The dog looking at the man is his power to STOP the threat. This results in a decrease on the stress curve. There is a SAFE PLACE available on the stress curve to where the dog can retreat and this possibility helps him to stop being so nervous. Going to this SAFE PLACE means the level of stress hormones decreases and he returns to the so-called foot of the stress curve. At that moment the dog is relaxed, looking forward to a reward and looking at its owner in order to earn a reward. At that same moment that the dog looks up to tells his owner that he is ready to work for his treats - standing at the imaginary foot of the stress curve. He is ready to start. One look of the dog tells its owner to START, i.e. "lets him know that we can continue". This is the third question.

Finally, there's one more question that needs answering – WHY is the dog co-operating, and how important is all this for him? The answer– “to lose the fear of tall men and to be a better dog” – is naïve. That's not how our dog works to develop his own personality because until now all he had to do was to flee. The more straight forward and objective answer as to WHY is: “for a reward”. However, it's important to point out that the same rewards didn't mean anything in the past in the presence of the tall man. The primary reinforcer is now a reward instead of a the reaction to the stress which was the primary reinforcer before the methodical training. Furthermore, an animal that is not hungry will only start working for food once it has gained a sense of being in control. The control is achieved when we provide the animal with the opportunity for the STOP, SAFE PLACE and START. After these questions are answered, the dog is ready to start to work for rewards.



called desensitization and counterconditioning when we use the professional terminology. Desensitization basically means the systematic teaching of an animal to accept what was previously an unpleasant stimulus. Counterconditioning is making something unpleasant acceptable by coupling the stimulus with a pleasant stimulus. These two principles go hand in hand if we want to help the animal to get rid of the unpleasant fear. However let's not go into professional jargon too much as the stress triangle explains the whole thing without any foreign words and is enough for now.

So let's go through the four questions one more time. How does our dog who fears tall men STOP the stimulus from coming closer to him? – he looks at the advancing man. Where is the dog's SAFE PLACE? – With its owner. How does the dog START the training? – look at its owner. WHY should the dog participate? – for a tasty reward. Now we have the main supporting points so we can get started with the training. The dog is standing opposite his owner and is looking at him, in order to get a reward. He is ready to START. For the purposes of this example, we will assume that the owner has primed his tall man by telling him that when he says the word "man" the tall man will start slowly heading towards the owner and the dog. The dog is being constantly rewarded for looking at the owner but this is not on command – basically the dog is simply being rewarded from time to time for looking at his owner. At some point, the dog looks at the approaching tall man. At that exact moment the tall man stops. This is giving the dog the answer he is looking for. The STOP. Then the dog looks back and gets the snack (WHY) and the tall man moves away from the owner and the dog, leaving them secure (SAFE PLACE). To continue the training, this scenario is repeated until some change can be seen in the dog's behavior. He has stopped staring at the tall "dangerous" man and stopping him intentionally. He is now only briefly looking at the tall man and immediately turning his head towards the owner. The dog is no longer overwhelmed with the urge to stop the problem. The dog's focus is now to look for the reward. The dog's take on it is that a tall man who can be stopped by a mere look cannot be all that dangerous. At this point, the tall man will keep stopping when the dog looks at him, however at the time of the snack, the man will not move away anymore. There is no need for it, as he has already stopped being a problem for the dog. Time for the next step in the training. The dog looks at the owner to START the training. The owner signals the decoy again with the signal "man", and the tall man moves closer. The dog looks at the tall man (STOP) and once again the tall man stops. The dog looks back and gets the snack (WHY), but the decoy does not go away because even without that, the dog has his SAFE PLACE near his owner. We know this because we see that the dog is relaxed enough to ask



for further snacks. The dog gets some snacks for looking at the owner, and the signal man is given to the decoy to advance and the decoy comes even closer. He comes closer and closer, until the dog looks at him (STOP). And so on and so on.

A caution is required at this point. Even at this moment, the tall man cannot get too close. Often dogs are not as relaxed in their mind as they appear to be. They may actually be controlling themselves and yet be on the verge of FFF, either because they need the snack, or because they feel that they are obliged to look at their owner. After all, as we said in last chapter, the dog is the "eternal child" who often bends over backwards for us even if we do not expect it to. So several times only, the decoy comes close to the owner and the dog. At all costs, he must not get so close that it would be unpleasant. At some point it is good practice to increase the distance again at the same time as the dog gets his snack. This so the owner and the dog get down time to "descend the stress curve" back to the baseline. At this point, they can play for a while together, provide the opportunity for exercises with a lot of movement and primarily with a lot of success.

After several repetitions, we usually come to the next stage – now the man keeps stopping at the dog's look, but does not go back, and the dog lets him come really close and does not seem to mind him. At this moment, this specific decoy probably does not represent any danger and there is no reason for stopping. STOP is superfluous. So the decoy goes past the dog without stopping and the dog gets snacks at the owner's discretion, either for looking calmly at the decoy and back or just for looking at the owner. Caution, even if everything seems completely all right, the decoy must always only progress one step at a time, and always ensure that step in the training has been well-rewarded. Never assume that the dog is okay with advance beyond what has been trained. If he wants to come even closer or if he wants to touch the dog, he must observe the same rules as outlined so far – that is he must stick to the agreement about STOP, SAFE PLACE, WHY and START.

#### Description of pictures



A German shepherd bitch that was seriously attacked in the past is aggressive towards other dogs when she is on the leash.



START, the other dog is far and the German shepherd bitch offers sitting in front of the owner for snacks. Therefore the other dog can move closer.



STOP, the other dog has stopped as a result of a mere look from the reactive shepherd.



SAFE PLACE, the reactive shepherd turns her look back and is rewarded by a snack and by the other dog's increasing retreat which occurs at the same time.



After several repetitions, the dogs can pass each other without problems.



The training with every new "other dog" is much faster.

We still have to answer the question. What do we do if the dog shows fear despite the training? For some reason perhaps the decoy does not manage to stop at the right moment, or does not notice the dog's look. Perhaps the accumulated stress in the dog suddenly exhibits

with an unexpected reaction. This means we have overstepped the mark. We certainly will encounter such situations during our training. We must take care that there are not too many of these oversights. Very important is that we must at all costs avoid many mistakes in a row. If the dog is afraid and steps back, it is his holy right at this moment. It is his own STOP that he has been forced to exhibit. If this does happen, the decoy simply stops and will not increase the power of the stressor. The dog will receive no snack for such a reaction... why should he? He has not shown any behavior that could be rewarded with a snack; and, besides, a scared dog will not be in a mood to take the reward. The dog has stepped back – the decoy has stopped – the dog has calmed down and the decoy has moved away. The calmed dog looks at the owner (START), but the owner will not give him any snack or call the decoy back; by contrast, he will appreciate the dog's look with several other positively reinforced commands for specific exercises, which he can reward. He will gain the dog's confidence once more. That will calm down the dog, and then the training can resume. Careful note must be taken of the exact point where things went wrong the last time. If the dog stepped back, the stressor was too strong for him – the tall man was too close or walked too quickly... Therefore we need to go back a step. In the next repetition we must behave more softly, in order to ensure success. Only when we feel that the dog is prepared, can we "get tougher" and overcome the mark we did not manage last time.

My experience says that with one decoy, the dog learns to tolerate only one specific person. To help in general, this exercise must be repeated with several other people. The second decoy will probably have to pass the same process, but it is usually faster. The third decoy is usually much much faster, and other people need not face the STOP issue at all. And only at this moment, is the dog is able to move to the street, to meet people who don't co-operate. We have hopefully trained the dog to meet people from common life who do not know and observe his agreement about STOP, SAFE PLACE, START and WHY, who do not stop, move away at the right time, but just pass by and, sometimes, stroke the dog without asking for permission. After all, the dog will not live in the training centre but in real life. It is the owner's responsibility to forge strong links between the training centre and real life. What questions can the owner answer by himself? The owner should not attempt the START in real life by moving off to a potentially dangerous territory if the dog does not seem at ease. With regards the WHY, the owner should take snacks with him and not ignore all the correct reactions of the dog, and rather reward them. With regards the SAFE PLACE, the owner should not let anybody enter the dog's sovereign zone – in this case - at the owner's feet if the dog is not at ease. He actually can even assist with the STOP for the dog – instead of stopping

a stranger, he can increase the distance from the threat by moving away with the dog. If the problem does not exist anymore, there is no need to take flight. If the problem does arise, the owner has the ability to solve the concern because some tools have been created. After all, the owner is the one that knows his own dog.

Have you noticed that, over and above the four questions - START, STOP, SAFE PLACE and WHY, there is another agreement that has arisen in this training? It is the word "man" that was always used to make the decoy move closer. That word now promises that the situation for which we have trained is about to occur. It primes the dog that the owner will follow the rules that have been put in place. It promises that the man who is approaching will only advance if the dog is comfortable. So the dog need not worry but on the contrary, he may even profit from the experience. Yes, it is that "feedback signal" from chapter *Secret language* that can help very very much. It is important however that the owner does not let the dog down.

#### When answers are missing

Let's have a look at situations when the animal missed the answer to one or more of the four questions.

"My bitch underwent a difficult period when she miscarried and her hormones were messed up. At that time, she started exhibiting fear at just about anything – people, loud noises, shots, riding in the car... Now she fortunately is all right and all her fears are over. Except for one – she still is terribly afraid of riding in the car, and it is getting worse and worse!" I heard that question at one of my first chat-workshops, and now I am asking you, dear readers: "What is the difference, for a dog between running around the garden all day and being able to enter her safe kennel, and riding in a car and encountering strangers behind the fence or loud noises? Which of the four main questions is the missing answer?" Yes, she is missing two answers – the STOP and the SAFE PLACE. Actually, all answers are missing, because when riding a car, she certainly was not being treated with snacks (WHY); so before the ride, she would not ask for a continuation of training with her START. But STOP is the most important point here. The car simply cannot stop on the highway only because the dog has asked for it. And as STOP has not come and the ride goes on, the dog's stress is increasing on the curve - higher and higher. She has already passed by the FFF line and is now in distress. She starts shaking, cowering, and gasping quickly. Finally a resting place comes, and the car stops. The dog can jump out of the car and relax for a while. But what was her condition when jumping out? Her condition was similar to my condition at the roller coaster with its

planks of wood that dragged me into trouble. The condition when the car stopped was the dog in distress, a definite unpleasant feeling. There is positive punishment linked to riding a car. And there is one more thing – relaxing from distress takes much longer than relaxing from eustress. However, the owner cannot wait so long, and so he calls the dog back to the car. The dog, of course, does not feel like obliging, but the ride must go on, so the owner somehow manhandles the animal into the car, The car ride creates even more distress now. . And the retort I received when we were discussing this in the seminar was: "Well, nothing's happened to her in the car!" But we know already that something happened to her. She was afraid there. And, unlike people, she will not re-run the events of the day in the evening and say: "What a silly little thing I am, if nothing happened to me." No, when the ride ends, it ends, and what happened, happened. She was punished by distress linked to the ride.

So in this case we went beyond the eustress/distress threshold, as there was no opportunity for the dog to prompt a STOP. What if the owner decided to get the dog accustomed to riding in the car in another manner: he takes her to a dirt road, rides only a short stretch with her, and as soon as he sees that the bitch has started being nervous, he stops? In that case, there would be a chance of a cure, because we have the answer to STOP..., but do we have SAFE PLACE here? If the bitch feels well in a standing car and, ideally, gets in through the open door to rest there, then the safe place is hopefully there. Hopefully – if its status was not changed through repeated "scary rides". If the safe place is here, then it could really be helpful to sit down into the car, between two people and one dog, and do the exercise similar to that with the unknown man. A look at the owner, while the car is standing, is START. The snacks are WHY. The look out of the window or any specific movement is STOP, and the SAFE PLACE is in the standing car. Then a solution is possible. If the dog does not perceive the standing car as a safe place? Then she has no place to relax after the STOP. She stops on her imaginary stress curve, but the stress does not descend. And with the next starting of the car that must get home somehow, the dog's stress darts up the curve from the same place where it ended last time. She will finally cross the FFF threshold, but in a stop start pattern not in a continuous climb.

The situation when the animal misses answers may be even a simple walk on the leash. We already have described an example above. The dog fears tall guys for some reason, and one such guy is coming closer. The dog tries to take flight, but that is not possible, because of the leash. There is no STOP. So he tries to hide behind his owner's legs, but that does not do, because the man is coming straight to him and the owner obviously lets the man advance. Mistakenly, the owner has been advised to "...stroke him." He will get used to it." There is

obviously no SAFE PLACE behind the owner's legs. START and WHY are completely absent. The dog will not touch any snacks in this condition. We will not describe again how to get accustomed to tall guys; rather, let's become aware what follows from the fact that there is no SAFE PLACE with the owner. Something like that means that the dog will not find refuge with him not only from scary tall guys, but in fact from anything scary. The dog is not protected from another aggressive dog. He is not safe when there is loud scary shooting. The owner is not a safe refuge. He is not equal to the above mentioned primary reinforcer of control. The dog will have to seek the safe place somewhere else – so if he gets scared by a shot somewhere in the field, he will not run towards the owner but rather home or to who knows where. And if he is on the leash and sees a dog that could cause problems, maybe he will prefer to attack such a dog preventively. He will secure safety by himself, if he cannot find it elsewhere.

#### When answers cannot be given.

Many years ago, I experienced a potentially tragic story when riding a bicycle; fortunately the story had a happy end. After a bend, a small child suddenly ran out in my way – I did not manage to stop, could not go round... the result was a child lying on the ground and me and my bicycle next to her. For a second, everything seemed to be all right, but the child suddenly stopped breathing. Fortunately, her grandfather came running. He picked the girl up by the feet with one hand, turned her head down and gave her a slap on the back. The girl started breathing, to our huge relief. I made sure that everything was all right, said good bye and rode on. As I rounded another corner, I fell off my bicycle and sat on the ground for a couple of minutes. I stared into space and the world spun in front of my eyes. The stress from the collision with the child came only at that moment. The preceding events had happened so quickly that there had not been any time left for slow increase of stress. It was so sudden, just like a bolt from the blue. Like a shot!

If you have ever experienced a similar event and collapsed after it, with some delay, you will certainly understand what I mean. There are events that happen so quickly that you just cannot say STOP to them.

In animal training, an example of sudden events is gun shots. The shot just happens. The sound and the shock wave rises from zero to the maximum within a fraction of a second, and then everything disappears. The animal cannot say "STOP, don't further increase the volume!" in the middle of the shot. The shot simply happens, and either it was too much, or too little. When getting a dog accustomed to shooting, it is therefore not unusual if the stress

response occurs after a delay. For example, the owner decides to desensitise his dog to shots with the help of snack rewards. He asks his friend to shoot a gun close to the dog. The first shot goes off, and the dog seems to remain attentive and without problems. It even takes a reward. The second shot is similar..., but when the third shot goes off, the dog not only does not take the reward but also tries to flee, and even stops responding to any stimuli for a period. It was at ease at the first two shots but the stress on the curve was increasing. Also, no time was allowed for the stress to return to normal.

So how do we train this, when having no answer for STOP? I would certainly not try to reduce the animal's fear of shooting in an unknown environment. I would choose somewhere near a safe place. A place to where the dog can withdraw at any time. A caution at this point is that the training must not happen inside the safe place – a safe place where a ghost has penetrated stops being a safe place. I would train shooting for example near an open car in which the dog finds security. Or in the garden in front of the house that has open door to the porch where the dog has a good association. At the same time, it will be very important to motivate the dog strongly with rewards that we know are reinforcing (WHY) and never shoot before the dog is clearly relaxed (START). Because the response causes stress, and because we don't know whether the dog is "already" relaxed or "still" relaxed after the first shot in the first training session, it is definitely not appropriate to shoot multiple shots in a row. More appropriate would be to intersperse a shot with other well-reinforced exciting confidence-building exercises where the dog has the opportunity to calm down. In such scenarios, the dog's training to accept the shooting and the use of snacks for rewards can work well.

#### What does not kill you makes you half dead

"All these things are nonsense and useless ceremonies!" an old cut-and-dried dog trainer may say. "We dealt with response to shooting many times, and it is simple – you put the dog into a crate next to the shooting range and leave it inside until it gets accustomed to the noise. It has worked many times doing it that way, so why do it differently?" And I really believe him that it worked many times. Flooding is a defined animal training term. Flooding the animal with a stimulus that it fears, or in short flooding, constitutes a traditional method of domesticating, or taming wild animals. It has also been used to get individuals accustomed to scary things. To close the dog in a crate from which it cannot flee and expose it to long and loud shooting is a version of flooding. And it can really work..., but it also can transform the dog forever into a frightened desperate being that is startled by the mere clap of hands. The outcome is

determined by the point on stress curve that the dog will have reached when it is allowed to leave the crate, or at what point on that curve it will be when the shooting ends.

Variant No. 1 reads: A self-confident dog enters the crate; it knows the crate and has experienced the crate as its SAFE PLACE i. It has no major problem with shooting, at least with less loud shooting. So as soon as loud shots start going off in quick succession, the dog does not lose its head in its "safe place". It has some experience with the shooting, and it does not pass the FFF threshold, thanks to its nature and the safe place in the crate. In such cases, an animal that has become accustomed to higher intensity of shooting will leave the crate, and everything is all right.

Variant No. 2: The crate is populated by a dog that does not have problems with relatively quiet shooting but has problems with the crate. The dog does not want to enter the crate by itself. It is not familiar and is afraid of it for some reason. The dog is simply forced and locked into the crate. The crate is definitely not experienced as a safe place. The dog at this point experiences stress at least on the midpoint of the stress curve. It fortunately has not passed the FFF threshold yet, so there would be chance for it to become accustomed to the crate... but just at that moment, the shooting starts. If the same intensity of shooting that has not caused any problems so far is used, the sound will have a completely different effect now. The thing is that in past situations, the shots always caught it at the base of the curve, and so the subsequent response did not take it past the threshold of crisis. But in this situation it is already at the midpoint of the curve, dangerously close to the FFF line, and so shots will virtually shoot it across the FFF line. The dog gradually reaches distress in the unknown crate. If we do not let it out and discontinue the shooting, its last memory of the crate and of the shots will be really very bad, and the next responses will be evidence of our failure to calmly desensitize the dog.

Variant No. 3: The dog is quite fond of the crate, but evidently fears shooting. So at the beginning, it enters the crate willingly by itself, as it is its safe place. But then the shooting comes, and that is a very stressful thing. And the noise, scary to our dog, has been experienced by the dog while it is inside the crate. The safe place is not safe anymore; the ghost has got into it! The dog will pass the FFF line very quickly due to the shooting; it gets into distress, and simultaneously it loses the positive relationship it had to its crate. The crate was not able to protect the dog from something it feared so much. If we let it out of the crate in this stage, the dog will have a bad relationship not only to shooting but a newly associated



bad relationship with the crate, as it has just linked it with shooting and with its own helplessness.

Variant No. 4: A dog that is downright scared of shooting is closed into a crate; in this case, it is quite indifferent whether the crate is known or unknown. The shooting starts, and the dog in the crate quickly gets into distress. It may have tried to get out of the crate, but now it is only lying and gasping, maybe also shaking. The situation is definitely not pleasant for the dog. If we let it out of the crate at this point the result would be the same as in Variant 2. But it won't end there; on the contrary, the shooting goes on, and so the dog remains in the distress stage for longer. Distress may end by death; but let's be humane and say that the dog won't die. That would really be extreme. Our dog slowly starts pulling itself together during the long and endless shooting, and when it is finally let out, its distress is over already. The dog's stress has moved back across the stress curve and is now in a stage of quite bearable eustress. It really has become accustomed to the stimulus. It is let out of the crate only now, and it is quite possible that it won't fear shooting from now on. During the long and exhaustive process, the dog has not only reached "the bottom", but also rebounded from it, and learned to cope with the continuing uninterrupted stressor. So this last variant represents really successful flooding in practice. As you can see, it's result depends to a significant degree on when the whole process is interrupted and how much the animal is able to "rebound from the bottom". Some individuals won't rebound, but stay on it forever. Some animals succumb to the long lasting intense stress which means death. Others, on the contrary, manage all that without damage to health or soul. Who will or won't rebound from the bottom? That can be seen only when they are on the very bottom. But now tell me, dear friends and dog lovers: Who of you will risk such an experiment? And who of you will be so hard-hearted to hold on until the end?

### Burning desires

Dear gentlemen, do you know the situation when a man and a woman get a box of chocolates and go fifty-fifty with it? I personally behave like most guys in such situation – I polish off all my chocolates within two hours. My wife tastes decently one chocolate and leaves the other ones for later – all of them in an open box in the middle of the kitchen table. Next day she may take one again, and the chocolates remain in the middle of the kitchen. You only have to reach out for them... But I cannot do that, of course, it is her half! Passing through the kitchen makes me suffer more and more. The chocolates virtually call "eat us!" Each trip past the open box holds the danger that my stomach will digest itself, and it gets worse and worse.

I climb my stress curve with each trip past the box of chocolates, and start hating my wife, the originator of my stress, for eating the chocolates so slowly! Similarly to a stressed dog, I also miss the answer to STOP. But what the answer to STOP be in a moment in which we crave something ? Simply take it. And I cannot take it, so I climb higher and higher, up to the FFF threshold where I stop controlling me and choose fight from among the three FFF choices. "Damn it, close the box of chocolates and put them into the fridge right now, or I won't be responsible for my actions!" And from that moment on, I am considered a devourer by my family...

If you understand this situation, maybe you are able to imagine the feelings a dog may experience when it is in close proximity to a forbidden temptation. The higher the attractiveness of the stimulus, the greater the power of the stressor on our stress chart. And as the only sensible answer to STOP would be to take the thing in question, which is not possible, STOP is evidently missing in this situation, and the dog reaches the FFF threshold. After passing it, he stops perceiving what the handler tells him, and only "fights" by pulling on the leash. In such close proximity to a big temptation, where he is incurring stress we cannot expect him to be reasonable and participate in training. Yes, we can shout at him or overpower the stressor of temptation by a stronger stressor of our power..., but that won't calm the dog down. He may stop pulling the leash. But he is not ready to enter into any agreement just now. For the dog to understand something, the intensity of eustress on his stress curve must be more prevalent. That means in practice that we can create agreement either far from the temptation, or close to a weak temptation. Both situations reduce the stressor intensity to a level where the dog knows about the temptation, but is able to resist it without problems. A level where he is still responding to the handler. Then we can, quite non-violently, create the following rule: "If you calm down and sit down calmly, I will let you approach the thing (or give you something that is even better)." As soon as the dog has understood the rule, he can rely on it. The rule per se actually becomes his SAFE PLACE in the imaginary virtual space of dog emotions. And the task of "sitting down" is actually his own answer both to STOP and to START. And the tempting thing is the reason WHY he does it. At this moment, when answers exist already, we can start applying the rule closer and closer to the temptation, i.e. under higher and higher power of the stressor. And if the dog does not stand it and yields to the temptation, we simply stop him on the leash and know that now we were too close – we have crossed the threshold of power of the stressor that the dog is able to manage at that point in his training We thus must start the next trial at weaker level.

"Kill me, master, I failed!"

The human history knows a lot of cultures where faultless perfection was an obligation, and to fail such obligation was the worst offence. In adventure movies, we can often see how a samurai who was not able to fulfil his master's task rips open his own belly with his sword in ritual hara-kiri. A yakuza cuts his own finger in return for not managing to guard a drug warehouse, and in another movie, a Spartan soldier voluntarily reports for a suicide attack in order to purge away the shame for preceding defeat. Where perfection is an obligation, failures are "worse than death". Even among dog races, we can find some whose artificial selection aimed at perfection, and a mistake, or even unwillingness to fulfil a task immediately, was fatal for the dog. Today's representatives of such races, produced from so thorough a selection, usually feel a huge need to oblige the owner, and as a result, they often behave as if they would rather commit hara-kiri or at least cut a finger than fail. Indeed, for example some border collies find failure very stressful; they may even start collapsing. But can such a border collie avoid failure during training? No, that is impossible! Although positive reinforcement is called "learning by success", failure unavoidably occurs from time to time. Success and failure are two counterweights, and one could not exist without the other. "If the universe was made of sugar, you would not distinguish what is sweet," a wise saying goes. And although positive reinforcement training is not "carrot and stick" but only "carrot or nothing", even that nothing is failure. Failure that can perhaps hurt more than the stick in the case of an animal with an inherent need to oblige. And besides, failure in a trial where the animal felt as though they had succeeded is actually negative punishment, loss of something pleasant....,

From that perspective, we may start understanding why some extremely assiduous dogs start whining or barking in a stressed manner at every minor failure, or offer exercises they succeeded with before. If the handler does not do anything in such situations, choosing rather to wait until it passes, such a dog usually intensifies the behavior, offering hastily one exercise after another. In other case, the dog starts scratching itself or buries its nose into the ground to be flooded by a mixture of smells that takes its mind far from the world of exercises that have become unintelligible and stressful.

The first impulse for the dog to offer this reaction usually is failure in training. It may even be only one unsuccessful attempt during learning. Other times, the impulse is as a result of the fact that the dog did not have any command and was unable to "believe that it is really was not required to do anything". We have spoken about such cases already – a pause in positive training may constitute punishment to a highly motivated trainee.

So how do we provide such an animal with answers to the four questions of the stress triangle? With the help of the technique described in chapter *Secret language*. The technique I call zero variant and it teaches the animal that although it does not know what to do, there is always one exercise that pays off even without command. If you, for example, teach a hyperactive border collie that if he does not understand the task, he should sit down next to the handler and wait for further tasks, his sitting down becomes the answer to STOP – that is, the dog is able to show by himself that the process is confusing. The alternative is that the confusion will result in him crossing the critical threshold. In this position, he then finds the answer also to his SAFE PLACE – this is an exercise that cannot spoil anything, so he can at least be sure he has not failed. When sitting in this position, he is safe against failure. The moment in which the dog is sitting next to the handler and asking with his look what will come next is also the answer to START – from this point, he can ask for further tasks and exercises that will this time be simplified by the handler so that the dog understands. So one sole exercise has given us the answer to three questions at one go – STOP, SAFE PLACE and START. That's why we gave it two names in preceding chapters, depending on the context – "zero variant", if it answers to STOP and SAFE PLACE; and "the first step for the animal", if it answers the START. The only thing that did not require a prepared answer was WHY. The dog had answered that question at two hundred per cent long ago. In spite of the two hundred percent instead of normal one hundred, it was still possible for us to create stress for him, which is why we have to give him further answers. Answers that take him out of the "hell of too good reason".

### Stories from practice



#### Baddy and Petra

A lot has been written already about differences in female and male brains, about our perception of the world, about our approach to life. Male hunter approach versus the female gatherer approach, male one-hemisphere-at-a-time thinking versus female two-always-interconnected-hemispheres

thinking..., it is almost as if we lived side by side in two different worlds or like two different species. Of course, everything in life is not so black and white, but it is worth giving it a thought. And I definitely add my signature to some practical conclusions and pieces of advice for peaceful coexistence of "men from Mars and women from Venus". The following is unambiguously true for me: "When a man passes from one environment to another, he needs several minutes of peace to be able to adapt. During that time, do not ask him about anything – you won't learn anything, you'll only make the atmosphere worse and the man will need even more time to adapt!" Yes, I come from Mars too, and I also have trouble coping with a situation when, upon my arrival home from work, my three children jump on me yelling different requests in unison and at the same time my wife is asking me for answers for burning questions, and the TV bellows in the background. I usually perceive only a cacophony of loud requests, my foamy blood gurgles behind my ears, my skull threatens to explode, and to avoid attacking in self-defence, I must switch off the only thing I can switch off – the TV. I need some seconds of peace to adjust my brain to the new, afternoon, daddy-function; and then I am in working order. From the perspective of our stress curve, I am consciously saying STOP to some of the noise. I am recreating the SAFE PLACE in our home, and only then am I ready to provide the START to myself so I can working as daddy. And do you know that, according to some books about men and women, we guys are quite similar to animals?

At one chat-workshop, I got a question that sounded really urgent. "My two-year old border collie growls at me in situations where he does not feel like doing something. He has even snapped at me several times – that occurs for example when he is on the top of the agility course A-frame obstacle and I want to pick him up. He growls also when I wake him up and want him to do something or when I want to carry him to the bathtub. How should I behave in such a situation, in accordance with the positive reinforcement training logic?" Well, I personally don't claim that you are banned from giving your dog a lesson if your health is at stake. If his teeth threaten to clip your hand or your nose, you cannot ignore it. But on the other hand, it applies that prevention is always better than delayed fire-fighting, and if your dog shows you such a serious signal of displeasure, there is something wrong in your mutual communication. I didn't dare to answer the question without practical demonstration, and that's why, after several weeks, I met Baddy and Petra, his owner, in the training centre. "Well, let's try the agility situation, when he gets stuck on the A-frame", we decided and built the obstacle for Baddy. Baddy broke devotedly into a run towards it, climbed it and started looking fearfully under his feet. "Come, come, come on!" Petra started encouraging him

intensively, and Baddy, with great displeasure and huge caution, descended after several seconds. A second repetition, the same scenario, and that time he stayed up for about fifteen seconds. In the next repetition, he stayed there even longer, and in the end, he sat down there and wouldn't descend. " he stays sitting up there like this, and if I go to pick him up, he growls," Petra said. I somehow recalled the situation when I come home from work and growl: "Leave me in peace for some seconds and let me adapt!" No, that is no display of dominance; that is only a too vehemently expressed request for some extra seconds. An inappropriate, but tried-and-tested strategy to say STOP and gain time until I am ready to START myself.

So let's give Baddy on the A-frame another STOP that will be tolerable to all of us. Say that while he is looking under his feet, we will not exert pressure on him. He will get the command to descend only when he lifts his head again. The look down will be our STOP, and the raised head will be our START. It will be the signal that Baddy has descended his stress curve down to its foot and is ready to go on. So let's go! The first climbing of A-frame; Baddy got stuck, looked under his feet, looked at Petra ... "Come down!", and Baddy descends calmly. The second trial is faster, the third is even faster still, and after several trials, Baddy does not look under his feet anymore. He finally was provided time to peacefully examine what he needed to examine, and from then on, he managed the obstacle without problems. His growling or snapping was only an inappropriate way of asking for a STOP. Inappropriate, but the only working way, if fine insinuations did not help. And each time the growling or snapping fulfilled its function of STOP, the behavior was reinforced and so became the preferred response. But from now on, it is not necessary. Petra actually does not mind Baddy's needing several seconds to compose himself. She minds the way of his exacting it; and that's why she will perceive and respond to finer requests from now on. Baddy does what Petra wants, only that he needs several extra seconds in order to achieve her bidding.

The same strategy we used at the A-frame has been useful in practical life situations – such as joint exercising and cleaning of paws; Baddy lets her carry him to and from the bathtub, while in the past it was hazardous. Prevention is always better than fire-fighting. Perceiving a request for STOP as long as it is fine is better than pacifying a request that has become out of hand. And principally, this is not only about STOP but about the amalgamation of the four stress triangle questions. If Petra and Baddy have answered those questions between them, they have solved their main problems very well.

## Gigi and Magda



Try to put yourself in a dog's shoes. And it is not any old dog, but a potential beauty champion, who is about to be exhibited at a great international dog show. Busy rooms, running inside a show ring with other unknown dogs around, with strangers touching your private parts, with nobody waiting for anything and everything must run according to schedule. How many extra stress triangle questions will be asked of your dog in this place? Quite a big deal. To make it even bigger, add your owner's nervousness. They are nervous because they care deeply for your success. Standards like "tail under the body line", while the dog normally has the tail up are important. Exhibition is actually a terribly stressful thing. The dog does not have many chances to say STOP. In the ring and during the referees' examination, the SAFE PLACE is missing. To manage all that, you must not only be a beauty champion but also a "thick skinned" champion. Yes, there is need for an intelligent owner who is aware of all this and therefore prepares the dog for the show as one would train for an athletic performance.

If the owner of the potential champion is somebody who leads a dog school, then the success is predetermined. This was the case for Magda and Gigi, a beautiful young black standard poodle bitch that, unfortunately, had not had good experiences with dog show referees. No, none of them had hurt her, at least not according to our human criteria. Gigi just went to the show and did not like guys who would approach and, God forbid, start touching her. She managed her first show well. An elderly lady acted as referee there. The second show was a problem; the referee was a guy there. Gigi is deeply devoted to Magda; that's why she controlled herself in the presence of the gentleman referee for a period of time during the judging. But then it became too much for her. From the perspective of our terminology, she was "punished by her own fear" in the show ring. The experience was associated with her fear. Therefore the positive punishment efficiently reduced Gigi's willingness to repeat the show experience. Before the date of the next show, they needed another big guy who was willing to co-operate and provide Gigi, together with Magda, the necessary answers to the burning questions of the stress triangle.

And so we met in the training centre for the first time. I was the ideal prototype. The unknown bad guy. I approached, stopped and moved away, providing answers for Gigi's as

she exacted the questions . Our first start was when we were still some ten meters from each other. After two training evenings, I could touch Gigi without her releasing her show posture. Everything ran exactly according to the instructions described above in this book, only that instead of the signal "man", Magda used the signal "show yourself". Actually, there was one more difference. Gigi is a dog "struggling with her own fear", and that's why she is able to suppress it for some time. You can stroke her once, twice, three times ... and suddenly, she jumps back. Not because the third stroke was bad, but because she did not like the first two. But she has been controlling herself so far, trying to hide her anxiety. So we had to include an additional STOP. The first STOP was for her to the look at the 'big guy'. The additional STOP was determined by Magda. Magda would call for the STOP by what she saw in the dog's eyes. A relaxed look, or a nervous look? Is she at ease, or has the relaxed look become troubled? Because in case of a dog that climbs the stress curve, but only feels the stress deep inside and does not show anything, it is the owner who must discern how the dog feels.

The fact that Gigi got accustomed to me of course did not mean that it would be OK at the next show. At home in Ostrava, Magda and Gigi went through the same procedure with many further decoys and with groups of people. Magda then took her dog to busy places like railway stations and big buildings full of people. Finally when Gigi was provided the signal "show yourself" in the crowded Ostrava Railway Station, and was able to tolerate touches of a particularly strange and completely unknown guy, it was time to take her to a show. And directly to a great show in Lodž, Poland. The formerly nervous Gigi managed everything with ease and carried off the Junior Winner Title. Shortly after that, she also managed the Slovakia Championship, in the course of one weekend. The show is a performance, and the performance must be trained. And if you know how to do it, it will turn out excellently. So, Gigi and Magda, congratulations on your triumph.



**VII) "NOW WE ARE TEACHING, NOT EXAMINING!"**



(This covers principles on how to teach animals using operant conditioning, with an emphasis on the shaping process. The training of animals is compared with pupils having good and bad teachers in school – the good teachers understand each student as individuals and sensitively observe the feedback from their students – if the student does not understand, the good teacher improves the teaching process. The bad teacher simply provides the same teaching

method to each student, because “it works” (the teachers thinks), and if the student does not understand, the bad teacher describes the student as stupid)

**You can meet good teachers and bad teachers at school. There are teachers who are able to teach their subject matter perfectly and are loved by the children. There are teachers who lead the children towards perfect knowledge in a hard and demanding manner. Their lessons represent horror for the pupils and the teachers fail to generate interest in their subject. There are also teachers who cannot teach the children anything, and don't enjoy any popularity either. Where does the difference come from? I thought much about it when I was studying to become a teacher. In my opinion, the good teachers first explain the subject matter well and regard the first examination as information about whether they have succeeded in teaching. The teachers of the second type present a tried-and-tested procedure, not doubting its impeccability, and then examine in order to collect marks. Bad marks just inform them that the class is full of blockheads and slackers. The first group of good teachers rows the same boat with the pupils, perceives them as varied living beings and leads them towards the result. The second group actually competes with the pupils, and with the help of universal procedures, "tried and tested hundreds of times", shapes them into a predefined form as unthinking heap of clay. Tell me, what kind of teacher do you want to be to your dog?**

Page 139 – Capturing – when you “hunt” for existing behavior (about the method of capturing behavior and placing it on cue and the limits and possible side effects of this method)

Page 144 – Shaping step by step (introducing shaping as a common operant conditioning method)

Page 146 – It is not “shaping like shaping” (this covers different types of shaping – freeshaping, microshaping, targeting and so on. It is a common misunderstanding of dog trainers in Czech, that the shaping for them means only the freeshaping, which is just one of all the possibilities)

Page 150 – Rules of shaping (we go through the “Ten rules of shaping” published by Karen Pryor and we also create two more rules)

Page 156 – When things go wrong

As we know already, each individual behaviour has its trigger and also its consequence. During learning, the consequences are what matters first of all. The issue whether this answer was successful or unsuccessful. The successful answers will result in the behaviour being repeated and the unsuccessful ones will suppress the behaviour. If the clicker sounded and a treat came as soon as the dog looked at the owner, it will probably look at the owner again. If nothing attractive came after the same action, it is no use for the dog to turn the head again. This is quite logical, and everybody working in a positive reinforcement manner will tell you that his dog has the opportunity to "get something" or "nothing". But let's remember the initial chapters and the categories of consequences. The immediate consequence of a behaviour can consist in reinforcement (positive or negative) or punishment - suppression (positive or negative). There is no space for "nothing" here; the behaviour is always reinforced or suppressed, and the difference is only in how much it is reinforced or suppressed. So where, among these four categories, can we place the moment where our dog performed some action, waited for the reward, and nothing happened? Yes, it is negative punishment, i.e. the moment at which something pleasant is withdrawn - in this case, the dog's hope. Yes, it is a very weak negative punishment and it is certainly not cruelty, but it is definitely a consequence that suppresses something. And now it's up to the dog, who will use its own understanding and character to show what will be suppressed. Will it look at the owner more intensely (weak intensity of behaviour was suppressed) or won't it look at the owner at all (the behaviour as such was suppressed) in the next attempt? Or will it stop cooperating after a single failure (the willingness and working ardour was suppressed)? The specifics about each animal will be the deciding factor.

Many dog trainers rely excessively on the fact that the hairy buddy in front of them, with whom they hold their training dialogue, doesn't get discouraged so easily and will try it "again and better" after a failure. Such a partner is easy to work with, you needn't think about whether he will give up after failures - he won't. You also needn't worry about whether he is stressed by failures - he will overcome them in some way. Then you meet, among all those enthusiastic workers, one individual whose character resembles a wild animal's character, perhaps a bear - and you are lost. Fulfilled task - click - reward..., everything is all right, so let's increase the demands - unsuccessful attempt - no reward..., and the dog, after a single failure, will put its nose on the ground to sniff, run far from us or start barking neurotically. Each failure experienced where success was expected is experienced as stress, and it shifts our dog buddy from the foot to the top on our stress curve (see chapter *Horrors and desires*). And it depends on the specific dog how high it shifted as a result of the single failure. The question is also - how many further unsuccessful attempts will take the stress level to the

critical FFF line?. It is essential to avoid overstepping it. Therefore, even in common training, the answers to the four questions from the "stress triangle" – STOP, SAFE PLACE, START and WHY are required.

If you don't believe me, try training a laboratory rat instead of a dog. Rats are also smart animals, but they have their peculiarities. The rat Čárka convinced us in a practical lesson when Eva, its owner, taught it to move towards the target. The rat was working on a table. Its cage was situated on the table, and it had the option to enter and exit through the open door of its cage to engage in the lesson, . It came out through the door onto the table, touched the target, heard a click and got a reward..., quite a trivial exercise. But gradually, the target was moving away, and the task became more difficult for Čárka. It tried to touch the target stick with its nose, and got nothing. That puzzled it. It started running confusedly around the table, leaning on Eva..., but nothing brought the desired piece of cheese. The initially calm and wise rat turned into a buzzing rodent who finally ran back into the cage. There, it rested for a while, and after some seconds, it looked out of the open cage door towards the table. At that moment, the target emerged in front of it, and now the calmed Čárka went to touch it and continued working with concentration. From that moment on, Čárka had a simple strategy to adopt if ever it failed: Not lose its head, not buzz around like an ordinary rat, but enter the cage as intelligent Mr. Čárka, calm down there, and by coming back to the open door towards the table top show that "I am OK already, we can start again". In other words, it has developed the answers to the 4 stress questions: STOP = return to cage, SAFE PLACE = cage, START = look out through the cage door, WHY = to get the cheese! And it wasn't an issue of getting used to something horrifying. In the SAFE PLACE, the rat sought refuge from failure and confusion when it couldn't see a reason to the training any more. And by looking out of the cage door, it expressed: "I am OK already, we can try again."

So particularly for nervous animals, including some dogs, it is important to have the opportunity to say STOP even during training and to stop everything if the animal doesn't understand something. Then it can calm down in its safe place and as soon as it is calm again and ready, it can say "let's go on". In this way, our training will become a dialogue and not a drill. Only in this way are we will truly beginning to "explain the substance of matter at hand to live and thinking beings". Only then are we good teachers. The alternative to this conversation is the autocrat imposing the tried and tested procedures that therefore "must work" onto the dull pupil mass. I don't know your ambition, but I would like to be a good teacher.



Page 160 –  
Stories from praxis –



Cheryl and Kuba – A story about a dog, who 's owner is physically handicapped. The dog is so nice to him, that he will never “bark to indicate that he wants something”. This was a problem when he began teaching the dog to “bark on cue” using the normal manner of capturing the behaviour. So the owner trained barking by freeshaping, from at first a movement of mouth without any sound to the final barking sound-which sounds quite different to a normal bark. This chapter is about the fact that to achieve the same behavior one can utilise different methods and plans. Emethod has positives and limits.

Page 162 –

Jupí and Alice – A story about a Parson Terrier, which does not have any difficulty learning any behavior, except “stay relaxed and let me give you a massage”. For that behavior the owner had to use microshaping on muscle groups The criteria rewarded were muscles that relaxed more and more. The story is about, how in positive reinforcement training “stay and relax” can be much more difficult, then any other behavior)



**VIII) HE DOES THINGS WRONGLY...BECAUSE HE CAN'T DO THEM WELL**



*Mr Rob. Help! Translate the sentence – "simply sit down..." into my Border Collie's native 'Border dialect.'*

*F. Susa*

(Chapter about changing behavior that we do not want. The emphasis of the chapter is, that it is always much easier to teach what we want than what we do not want. The chapter elaborates that all the behaviors are just behaviors, part of the ABC of behavior analysis antecedent – behavior-consequence. We follow the hierarchy of methods for changing behavior published by Prof. Susane Friedman, 2008)

**At one of my workshops, I show a quite trivial video: A dog fastened outside a doctor's office barks and howls, till its owner finally comes back from the doctor's waiting room. "How would you break it of that habit?" I ask the viewers and different suggestions start sounding in the room. "The owner can wait inside until the dog becomes silent, in order not to reinforce its behaviour by her arrival. Another person could go and unfasten it. There are anti-barking collars for this..., we'll shut its mouth in some way..." All proposals are usually aimed at one idea - not to reward what the "scamp" is doing. How to arrange that the behaviour stops paying off, how to force it to become finally silent?! But only exceptionally, the following answer sounds: "I'll teach it to wait on command." Only this answer names the problem exactly - the things is that the dog barks as it doesn't know any other possibility to solve its problem. He does things wrongly because he can't do them well! Or rather not well but successfully, because, as we know already, this game isn't about good and bad, but only about successful and unsuccessful. Unfortunately, we too often neglect this simple logic. As soon as our animal buddy starts raging we feel the pressure of circumstances. Disapproving looks from other people. We start solving by focussing on our own problem with the animal. And yet, it would be far easier to solve in the first instance, the animal's problem. Each behaviour, however annoying, isn't anything other than just a behaviour. And the behaviour is, as we have said many times already, one third of the triplet consisting of the following parts: 1.) cue, 2.) behaviour, 3.) consequence. There isn't any behaviour that is manifest "off-hand" that is - behaviour always occurs after a cue. The statement: "He growls at me because he is naughty" doesn't describe the problem and, above all, doesn't offer the chance for solution. If he is a bastard, we can't do much about it. The statement: "He growls at me (behaviour) as I approach him and reach a distance of two meters from him(cue), thus achieving my stopping (consequence, in this case negative reinforcement)" is much better. Such a basic description at least shows us that each growling is reinforced by the stopping of the respective person. The opportunity exists here that the growling will probably become louder and more intense if we get closer. . most assuredly, if the dog does not have any other method of stopping the person peacefully, or any reason to allow the person to come closer.**

The above example of the growling dog is related to stress. That is why the all important four questions of the stress triangle would work in this instance. But inappropriate behaviour also occurs in situations not motivated by stress. "When we do dog dancing, he barks when walking backwards because he is completely silly and doesn't understand that I don't want it!" ... That is also not an analysis that provides a chance for a solution, because transforming a silly dog into a smart one is probably even more difficult than changing a naughty guy into a good guy. But let's look at the problem in this manner: When provided the command "backwards" (cue) - the dog starts barking from the third backwards step (behaviour) – This occurs because in training, we neglected it to avoid the barking and for a long time always rewarded walking backwards plus barking with a treat (consequence, positive reinforcement). We know that barking in this specific exercise is so-called superstitious behaviour and that we'll be able to eliminate it if we return to the steps in the training to the moment just before the barking commenced (i.e., in this case, to one or two backwards steps).

Notice that in both examples of wrong definition of the problem, the dog got a label that described his character. "He is naughty! He is silly!" It is too easy to blame the problem on the animal's character. "Something that cannot be proved, but explains everything. "Our country suffers from hunger because God determines it" - this explanation was used for centuries, and provided little hope for solution to the problem. At the very least it provided that nobody would bother their heads with it and that there won't be further "useless questions".

In animal training and particularly in dog training, many people resort to specific labels). "He gets easily stressed, he is a specific breed... He is dominant!" The latter label, "he is dominant", has become almost a new religion and irrefutable dogma, particularly in connection with some exercisers (I can't call such people trainers). "He is dominant" justifies a situation when the dog jumps up to welcome people. "He is dominant" justifies a growling of a dog that doesn't like hair trimming. "He is dominant" can be an excuse for almost everything. But the dog that jumps up on people obviously doesn't know any other manner to get contact with people. The dog that growls at scissors obviously wasn't purposefully taught to be accustomed to them. We have provided the example of the border collie who bit the hand with Frisbee as a result of the inappropriately mastered "first step for the animal". In another example, a dog that starts barking when it is uncertain offers a behaviour that has been reinforced by capturing. We need to find excuses for these behaviours, and the label "he is dominant" is a good one. If we "wipe the floor" with the dog, forcing it not to participate in these unwanted behaviours, the dog, due to fear, stops jumping up on visitors, growling at scissors, fooling about with the frisbee, or barking to initiate work (because joint work with the human is the last thing the dog wishes now). The human may even believe the problem has been solved. And it is, for the mean time anyway. (but also maybe for only a couple of seconds); the human has solved his own problem with the "dog bastard". But he definitely hasn't solved the dog's problem, and so the annoying displays are very likely to return. To label the animal is tempting and easy but it does not solve anything. Only when we understand the animal's specific behaviour to be a part of the triplet: cue - behaviour - consequence, we can do something about it. Because this triplet can be destroyed by replacing any of its parts. It is not always necessary to change behaviour by changing the consequence.

Page 167 – Changing the antecedent to get rid of unwanted behaviour. (illustrate techniques such as taking the antecedent away, capturing the behaviour and putting it on cue. Also discuss “feedback signals and promises” as well as desensitization and counterconditioning. There is a nice example of a game we play with my daughter –It is called “clever monkey” It is how we have desensitized her using a clicker game so we can easily cut her nails, and administer medicine and so on...)

...from page 170 the text of the chapter goes - We have seen examples of desensitization with counter-conditioning in the chapter called ‘*Horrors and desires*’. And there can be a great number of horrors and desires. When training a dog that fears intense noise its first exposure to a level of sound is one that it tolerates well. It is rewarded for staying calm. The sound intensity is increased in each further repetition, and further rewards arrive for the calm response. If the dog startles and backs away, the sound will stop, but no reward is given; and in the next attempt, after the dog has relaxed, the intensity will be a little lower at the beginning. The procedure maintaining the four answers to the questions: STOP, SAFE PLACE, START AND WHY was discussed in detail in ‘*Horrors and desires*’. Today, modern animal trainers can achieve real miracles by combining desensitization with counter-conditioning. Apes, hyenas, felines, elephants, seals, dolphins and a lot of other animals voluntarily present poses for blood sampling. After training, hoof-shy- animals are able to undergo voluntarily treatment of hooves, animals lie still and accept injection.... In all cases, the animals are trained for it in small steps and with the help of every possible means of communication to keep them under the FFF threshold in spite of the “unpleasant” intervention.

When our little girl was two years old, we faced the "ordeal by fire" faced by many parents. How to cut a small child's nails and the child fears the scissors, she shrinks away even before being touched by them? The parent is tired after a difficult day, and now comes face to face with a screaming youngster. The parent does the simple, but very silly analysis: "It is a spoiled brat (cue) - so it pulls its foot away (behaviour) to make me angry and humiliated (consequence)." Such a parent, at the end of his tether, labels his child in the same way as the trainer labelled the "dominant dog". By labelling the child, the parent is now convinced that there is no other way, and so he asks the other adult to hold the child, and the nails are finally cut, with horrible yelling and effort on both sides. The nails are cut, the task is fulfilled..., only the child fears the scissors even more now, and it won't take long and she will start fearing even the Sunday evening when the nails are cut. As two parents, we decided that we would not inflict anything on our two year old daughter Žofinka that we wouldn't inflict on an animal, So the "smart monkey" game originated. First, the right reward had to be chosen - so Žofinka set out to the fridge and found a snack she liked. In the spirit of the name of the game, "smart monkey", she rejoiced at how smart she was, and she was reinforced by receiving the first two teaspoonfuls of her treat for simply giving her hand to her mum. Let her have that feeling; positive reinforcement training is learning by achieving success. There are no losers in the process, only winners on both sides. When shaping (which is what we are doing now) we should start by asking for something the animal can do - Our little animal found it easy to put her hand on mum's palm without any fear. Putting the hand on mum's palm is our START, the snack is our WHY. "Well, Žofinka, now mum will only bring the

scissors close to your hand, and then move them away," I tell her to clearly let her know what is about to happen. The hand stays in mum's palm, so we can start - mum has moved the scissors closer. I click, and reward, and mum moves the scissors away. The hand stays in mum's palm, so we can proceed. "Now mum will put the scissors on a nail," I inform Žofinka and mum takes the next step, and everything goes well - touch, click, reward, and the scissors are moved away. "Now mum will only squeeze the nail"...; at that moment, the hand suddenly slipped out of mum's palm in fright. That was our STOP, and Žofinka, sitting in SAFE PLACE on mum's lap, looks at the snack and at the two of us, to see whether we are playing a dirty trick on her. No, we are not, it is exactly as we have said. She has the right to stop it, but she won't get anything for it. Finally she believes us and puts her hand back. Mum squeezes the nail very delicately, click, reward, and the scissors move away. Žofinka has the answer to the four questions and believes us. From now on, we don't need to fight; we are able to make an arrangement. During only one "training", we cut nails on both hands and feet, and we paid her only one snack for the job. The next Sunday, we paid only a couple of teaspoons of marmalade, and after two weeks, we were able to cut her nails without rewards. The thing is that the rewards were not the most important point! When playing "smart monkey", the treat was not that important to Žofinka. The most important thing about the game of "smart monkey" is assurance! Assurance of rules observed by dad and mum and by Žofinka. Assurance that nothing more will happen than was promised. And assurance that Žofinka can decide when to proceed and when to stop. Her motivation was not to keep her hand in place because she wanted the snack. The snack was simply a communication too. Without the game she was missing control. And "smart monkey" provided her with control. Therefore even today, she is older, but we are still able to resort to "smart monkey" if Žofinka is to take an unpalatable medicine or if anything else potentially unpleasant is required of her. . And it still works, because it isn't a trick but a deal made.....*rest of the chapter*

Page 172 – Changing the behavior (the DR techniques like DRI, DRA, DRO, DRL and so on. Rules governing the successful use of these techniques)

Page 176 – Superstitious behavior – the curse of positive reinforcement training (explaining how superstition arises and how we can solve the concern. The need to go “back to kindergarten”, is explained in connection with the stress theory. Comparison is made with superstition that competitive sportsman perform during athletic meetings – I have represented Czech Republic in shot put and discus, so I know it very well ☺)

Page 178 – Changing consequence (once more warning against side-effects of negative reinforcement and both kinds of punishment, discussion about extinction and the challenge of the extinction burst. How to use a time-out and that a long time-out is not good....in fact in this chapter I mostly argue that this it is always better to change the antecedent than to change the consequence. This is why this chapter is the last one. Discussion about “punishment is reinforcing for trainer”, resp. “punishments are drugs for trainers” – if we are using punishment, it is always necessary to focus not only on “what does it change with the animal’s behavior”, but also “what does it change with trainer”)



*From page 181 the text goes like...* In our list of behaviour changes based on the consequence, we will note that the last ones - positive and negative punishment, go hand in hand with negative reinforcement. –

Punishment, reduces the probability that a behaviour will be repeated in the future. When using positive punishment, after the animal has exhibited the unwanted behaviour, we add, something undesirable to the animal. . When using negative punishment, we withdraw something the animal desires. On the other hand, reinforcement increases the probability of the behaviour; so in the case of negative reinforcement, we withdraw something that was unpleasant to the animal (unlike positive reinforcement when we add something pleasant). We discussed possible side effects of the three possibilities at the beginning of the book (see chapter *Good, bad and... positive*). By bad timing or by bad intensity, you transform negative reinforcement into punishment for some other behaviour. When using punishment and negative reinforcement, we permanently risk building passivity, resistance or aggression in the animal. These are directly linked to punishment something we never originally wanted. All that was discussed already and there is no point in repeating it again. Indeed, punishments really work, as, by its definition, "suppresses a behaviour". But to use it as an efficient training method that doesn't harm the animal and only suppresses a behaviour requires feeling, experience and particularly detached view. And the detached view is the most difficult of all. "Punish the behaviour, not animal," is the motto of those who were able to use punishments efficiently. That means, in other words, "do it exactly at the moment when it works and exactly with the force that is not too weak and not too strong. And most important, you don't want to vent your anger while applying punishment!" But the moment when the "incurable animal troublemaker" achieves a reactive punisher from the trainer, can be a great anger vent for the trainer. It is logical: the continuously repeating and seemingly unsolvable problem being exhibited by the animal is removing the human from the most urgent primary reinforcer, that is - control! „I'll take revenge, I'll get control back!“ The moment of punishment positively reinforces the punishing individual! That is the problem. The moment is not about teaching the animal something. Rather venting one's anger with the resulting comfort of re-establishing the pleasant sense of once again being in control. That's why I try to avoid punishing animals. Of course I know that I am not able to do it a hundred percent of the time, and there are moments when I cannot do it in other way. But I realize that this was punishment, and in the given moment, I don't look only at the animal but at both of us. As long as there is a way to go without punishment, I choose the alternative. I am too afraid to time the punishment ineffectively. I am too afraid to incorrectly estimate the appropriate intensity. I am afraid to lose sound judgement. To solve only my problem and stop seeing the animal. And at that moment, the two partners who held a dialogue are reduced to only one self-conceited idiot, intoxicated by personal power. And that's really something I don't want to achieve.

182 – Stories from praxis

Aiska and Veronika – (the border collie was unable to understand the situation, when she was not asked for anything. When seeing her owner, she always started offering a variety of different behaviors and easily became highly strung and stressed. Teaching her the so-



called “zero variant”, as a default behavior also known now as the “first step for the animal”, was practical a DRI for that situation.)

Aiska and Veronika

Superstitious behaviour emerges before you realize it. Many owners of hyperactive strivers, with border collies at the head, know all about these scenarios. And Aiska was the winner in the competition for the most enthusiastic border collie. She is a beautiful, smart and primarily a

very fast dog. As soon as she starts offering behaviours, a trainer with SWAT team member reflexes and a sharp eye are required to avoid "clicking at the wrong time". Aiska does have a sharp eye and excellent reflexes, and as soon as you "click at the wrong time", she deems it law, and the approval of her action and continues being enthusiastically creative. Before you know it, Aiska performs a novelty you hadn't planned. What is the solution?

I met that couple for the first time for a relatively standard task. Veronika explained, "We can do the dog dancing trick 'paw over paw', but she added creeping forward to it, and now I am not able to break that habit." In other words, classic superstition - first there was a new thing (paw over paw), another one, a little easier (forward movement) was added to it and not only firmly linked to it, but now it sometimes replaces the original "paw over paw". In the couple, only Veronika, Aiska's owner is the one who knows that it is a mistake. Aiska doesn't know it; so she insists on it, in her effort to satisfy. If we want to eliminate such superstition, we have to return to the point in her training before the the unwanted behaviour emerged. "Can you recall when the creeping forward emerged?" "Well, I think that it happened at the beginning already!" Then we must return to the very beginning and teach the dog the whole trick from the beginning, ideally with a completely different procedure than the one that was originally used. Because as soon as the behaviour starts resembling the original one, the super intelligent and super fast Aiska will think: "Oh yes, I know this, it is the thing with creeping forward...", and we'll be back where we were. In the original version, Aiska learned to cross paws by free shaping; so now we'll do it for example by using targets. A CD under the paw served as target for a while. It helped to create paw crossing. The CD target was slowly removed and replaced by a verbal command. We used the verbal command for a fairly long time, until we were sure that Aiska was clear what we wanted from her, thanks to the target. To her, the old verbal command meant: "cross paws and creep forward". Now we provided it with a new meaning: "just cross paws". All of us were surprised when, after two 15-minute training rounds, the new corrected trick was created and everything and there were no problems.

Or rather that is what we thought. "Look how quickly we broke Aiska's superstition," I tell Veronika's trainer who just arrived at the training centre. But what's going on suddenly? The superstition has returned and Aiska is creeping forward again. "Why is she acting so funny?" Veronika asks. "She isn't acting funny, Veronika, but you are. Until now, we haven't cared much about the result, and Aiska worked calmly. Now your trainer is looking, and you are nervous as a result. Aiska feels the nervousness, she started being uncertain, and that's why

she has resorted to certainty. And till now, what has worked well, in her opinion is the forward-creeping. Only you know that it's wrong, she does not. For her, it is the better trained version, and as long as you are nervous, she will resort to it because it has a well-reinforced certainty. "That must be realized – as soon as I get nervous, I'll pass it to the dog, and the dog will return to the original version. So it's necessary not to act funny, return calmly several steps back, explain everything to Aiska once more. We did this, and in a couple of minutes, the problem was gone. The superstition was removed.

The second time we met, we had to deal with a worse problem. "Aiska can't understand that I sometimes don't ask her to do anything, and she is permanently offering me something. When I don't react, she gets stressed." The problem could be seen even before training. Veronika wanted to read a page of the distributed text. She had to hold out her left hand to prevent the animal from putting her paw on the notes. Training centre, treats, clicker, Veronika - Aiska is able to relax outside training, but at the centre, there is so much stimulation she was unable to give herself a calm break.

We have spoken about so called zero variant in our book already (In the chapters *Secret language* and *Horrors and desires*). In other words, it actually means - "if I don't know what to do, I won't spoil anything with this." And that was exactly what Aiska was missing. Her training was based mainly on free-shaping. This had led to her adopting the motto - "if I don't know what to do, I start offering something..., it is probably required." But it sometimes is not required; nevertheless, only Veronika knows that, while Aiska is unhappy about such situations. If we want to eliminate her chaotic offerings without command, let's first rank it among the "cue - behaviour - consequence" context. Veronika is standing, not saying anything, and has treats (cue) in a waist pocket - Aiska offers (behaviour) - Veronika probably will reward some of the offered behaviours in the end or give a command for some other, positively reinforced exercise (consequence, here: positive reinforcement). We can't do anything with the cue; and there will be time enough to change consequences. So we will change the behaviour and use DRI. We'll teach Aiska something that, exactly in the spirit of the above stated three rules, will lead to the same result (treat, praise, another command) after the same cue; she will get the same or a greater amount of reward and it will be easier than her present crazy offering. We chose spontaneous sitting down. Veronika gives tasks to Aiska, she fulfils them and gets rewards. Suddenly, Veronika stops giving commands, and Aiska starts offering. One of the first exercises she offers is logically sitting down. At that point, click and the reward comes..., and then, to calm down, some more commands the dog knows already. A short break again, and as soon as she offers sitting down without a command, click and reward. The super smart Aiska understood the principle very quickly, and after a while, she sits down by herself, anytime she sees no distinct command. Then we extend the tune we expect her to stay seated. When the training is entrenched, we stop rewarding it with treats. From now on, spontaneous sitting down will be rewarded by a command to do another behaviour, but an exercise that Aiska knows very well. Only after that exercise, will Aisk receive her treat. The dog understood that principle very quickly. At the end of the evening training, Aiska sat down in front of Veronika anytime she didn't know what to do. She wasn't rewarded by treats any more, but by another task, including learning new unknown things. Aiska wasn't tense when sitting, but was even able to sit easily and to

calm down. She has found the certainty here. She knows she hasn't spoiled anything and she is confident that her time will come. The "sitting down" zero variant, as a good DRI, has fulfilled the same purpose as the former offering, because at the beginning of the training, it led to the same or higher reward and was simple. Exactly as the wise theory teaches us.

Page 185 Danuška and Věra – about desensitization process required for teaching dogs “not to bark at cars driving past the fence”. It is not easy to desensitize for something, which you can not control – Every car driving past out of training time sets the training process back. But they did it☺



### **IX) PACK LEADER**

(it is not easy to explain this chapter in short. Mostly it is about the difference between a “dominator” and a “leader” in animal communities. I try to explain, how stupid the idea that some hold about the necessity of dominance to be a good leader and I show it in examples from animal world, especially on our lemur show– the show you can see for example at <https://www.youtube.com/watch?v=J1PbZkI1fJU> or <http://www.zoopraha.cz/zvirata-a-expozice/zvirata-se-uci/seznam-zvirat/7140-lemuri-kata> . I also use examples from human life)

**"When Mr. Aching worked for the old Baron, they, as men of the world, made a meaningful agreement together. The agreement said that Mr. Aching would do anything the Baron asked from him. The condition was that the Baron would ask Mr. Aching to do only things he would do by himself and voluntarily as well... Exactly that was what the Aching family understood under the word 'loyalty'. It meant that good people of all kind worked well, sparing no effort, when they were familiarized with their rights and obligations and had dignity of common people guaranteed... There was no need to speak about that arrangement, because each person of sound mind understood how it worked. When you are a good master, I will be a good worker; I will be loyal to you if you are loyal to me; and as that circle hasn't been violated by anybody for now, things will keep working in this way."**

**(Adapted from Terry Pratchett, I Shall Wear Midnight)**

In Prague Zoo, where I work, we have been presenting regular shows with ring-tailed lemurs since 2007. It isn't circus act. The training is done using purely positive reinforcement training and no pressure is used. Furthermore, nobody can accuse us of starving the animals - the show takes place one hour after feeding time, and we often have the leftover vegetables under our feet when doing the presentation. During the show, the black and white prosimians perform mainly natural actions - they jump, climb, balance and hang on ropes> One behaviour is indeed unnatural - they close themselves in a transport box. This is a very useful exercise. For one man to guide a group of lemur boys without problems through the whole show, he must be able to distinguish them from one another, know their capacities and have a clear understanding of the history of each of them, particularly understanding and respecting their mutual relations. And the relations and hierarchic order within the group, is the most important of all. If for example I want to ask the weaker Ovisiti to hang himself on the rope head down, then Pancho, a stronger and more dominant individual, must at that same time have a task to solve a puzzle. If Pancho was unoccupied and watched without any task how Ovisiti gets a reward, then a fight could potentially break out between them. Or, even more probably, Ovisiti wouldn't hang his head down at all, to avoid the risk of annoying the dominant individual.

Pancho, the youngest of the lemur seniors, is physically the strongest, and if a heap of tasty food emerges from somewhere, Pancho is able to disperse the surrounding animals by force, in order to enjoy the food. I call that a dominator. But I can't call him a leader. Because if a flock of ducks flies over the lemur pen, or an unexpected blow is heard or an undisciplined visitor brings a barking dog, the lemurs first get scared and then their eyes turn to Motorka,

the oldest group member. If Motorka is afraid, the group takes flight. If Motorka is at ease, the others are at ease too. Nobody in the group is interested in what Pancho, the dominator, does in these moments. You'll never see Motorka fighting, but he has no problems getting his fair share of the food heap. He simply arrives and eats, without any conflict. If he doesn't like a new incoming group member, Motorka just frowns at him, and at that moment two other lemurs who always follow Motorka attack the unwelcome newcomer. I can't remember Motorka ever being injured. But Pancho has suffered injuries at the hand of the other lemurs. Motorka is the animal that determines what the group will do. And I don't think he chose the role by himself. The group has simply united around his experience and is following him. Whereas Pancho is the individual that achieves privileges thanks to his physical strength. That is how it is now, but the time may come when he becomes weaker. He did choose his role of dominator, and now he has to go to a lot of trouble to preserve his position. These two lemurs beautifully prove what official science knows today. That dominator and leader are two separate roles and often, although not always, two separate individuals.

Page 190 – Dominator must be honoured

*(The chapter is about the rule of a dominator in an animal group, as outlined in the scientific methods of counting. I.e., the "index of dominance". Description that domination is really only about control over resources, not about leadership. But we have to respect the rule of the dominator, because it is about the social adjustments that result in the group. This is according to decisions which have occurred in the group. This chapter also explains the IB model – which is an index of dominance. This is a mathematical method that can be used to train a group of animals taking into account their dominance status. The objective is to prevent aggression. This is my personal method which was introduced to the animal trainer community through ABMA. It also won an award from the European animal training conference)*

If you are standing in the middle of a group of animals with a pocket full of rewards, you are willy-nilly their source of food. A source of food similar to fish heaped among seals or pieces of banana put among a group of monkeys. The animal band has its own set of rules for who will be the first to take from the food supply and who will wait for the rest. For you to violate such rules is for you to contradict the group's internal agreement. There is a possibility if you do this, that you will endanger particularly the submissive individuals. Dominance can be defined as the "degree of the individual's control over resources". This agreement, built and confirmed daily in thousands of minor interactions is what is at play. Ethology, science of animal behaviour, uses different dominance indexes to determine dominance within the group. There are dozens of them, by different authors, but they are usually calculated based on the number of won and lost fights over available resources. When a keen ethology student comes to the zoo with the task: "calculate the dominance index within an animal group for your bachelor thesis", you usually find him after several hours, sitting unhappily at a pen and lamenting: "But they aren't fighting at all, so how am I to calculate it?" "And why should they fight?" I ask. They are together on a daily basis and they don't need to use force only to verify something they know for a long time. "Look, now one has approached another, and the other has yielded him his place. Now one has headed to the food bowl, and the small one who was

there has receded one step. There are a many such interactions that show the hierarchy. It is not all about violence and brutality. That is useless, and the whole group knows it."

Dominance or an individual's ability to control resources, is respected by others. It is something that often exists just under the surface and is externally displayed only in hints. For example in positive reinforcement training, the dominant individual usually takes the easiest task (or rather, the others yield it to him). If the tasks of all individuals have the same degree of difficulty, the dominator tries to sit closest to the food source (i.e. usually to the trainer). If the tasks are dangerous for some reason, the dominant individual takes the safest place. He simply preserves the imaginarily highest value of something called index of balance (IB).

Index of balance (IB) is a methodology introduced to animal trainers in 2012 and developed on the Prague lemur group. It is based on the fact that the probability of an individual performing a learned behaviour during joint group training depends on four things - the first two of them increase that probability, while the other two decrease it. Their correlation results in the figure that must always be the highest for the dominant individual.

The first variable is K (knows?);. The question is whether the individual knows the given behaviour. It is logical that the capabilities of individual group members are different, and there are exercises and tasks mastered perhaps by only one of them. The better the individual masters the behaviour, the more likely he will perform it. The variable No. 2 is R (reward), i.e. how big is the expected reward. As we don't bribe, but reward using positive reinforcment (see chapter *What if he doesn't feel like doing it?*), the rewards come only after the performance. So the animal often doesn't know how big the reward will be, and that's why it works to earn what he expects. Different individuals in the group may have different expectations. The higher the expected reward, the more likely the behaviour will take place. The variable No. 3 is D (difficulty), i.e. – how difficult is the given exercise. As soon as the animal sees by our cue what exercise we want, he logically can imagine how much effort he must exert. There are physically easier more demanding exercises. The animal will logically prefer the easier ones, and on the other hand, the more effort an exercise requires, the less likely it will take place. The last variable, No. 4, is PA (potential to be assaulted), i.e. how much the animal is exposed to danger during the exercise. There are actions during which you are at the mercy of the environment. Such a typical action is a dog lying on his back in a circle of other dogs, a lemur's head hanging down, a seal lying on his back far from water with a dominant individual close by. Such exercises have an influence on the primary need "control", and as we have already said, such a reinforcer is usually more important than food. The greater the potential danger of the exercise to the animal, the more likely the animal will refuse to perform it.

As K and R increase the chances, increasing D and PA decrease the chances. The final equation is simple:  $IB = (K \times R) / (D \times PA)$ , or (knows x reward) / (difficulty x potential to be assaulted). We won't discuss now how specific figures are substituted for the individual variables. Interested persons can find the whole IB calculation form at the end of this chapter. Let's rather pay attention to the fact that, according to this formula, a lack of one item can be compensated by increasing another item - if the animal could refuse to perform the behaviour due to its difficulty (high D), we can compensate it by increasing the expected reward (higher R). So for example, if a lemur is to balance on a thin rope in the show, which is physically

demanding, and he doesn't seem to feel like doing it, I can give him a big reward, i.e. jackpot, just before the task. He then awaits the same for passing over the rope, and will throw himself into the difficult task. I can compensate for high difficulty (D) by teaching him to perform the task better (i.e. by increasing K). For example, I may not want him to balance over the whole rope. I train it in small steps, and it will get easier for him. And what about variable PA, the dangerousness of the task? How can that be compensated? Many of us will probably think that if an animal fears something, we'll just promise him a higher reward, and he will jump at the task. Somebody may even consider not promising higher reward to the animal but simply not giving him any food, and the hunger will deprive him of caution. Well, I would definitely not do that! Why? Let's say that a dog working in a group of other dogs refuses to lie on his back because that exposes his most vulnerable body parts for attack. What happens if I promise an irresistible reward? He may lie on his back. But the other option for him is to "establish a safe place around him", i.e. to try to chase the other dogs a bit farther. Another option for him is, if caught between two contrary decisions (eat well or be safe), to start doing something seemingly illogical - he starts infinitely scratching his neck, he puts his nose to the ground and starts "sniffing around".

Both the aggression and the seemingly illogical behaviour (scientifically called redirected behavior) have occurred because two different basic vital needs are in conflict - the primary reinforcer of food (through irresistible rewards) and losing the primary reinforcer of control (through dangerous exercise). If I lure an animal that has a justified fear into danger by offering extra-attractive food, I put it "into pliers", between two conflicting motivations. He desires the reward very much, and at the same time is experiencing a lot of fear,. Such behavior result from such being confused by two contraindicated motivations. The animal starts scratching itself incessantly, another spins around, or hens peck at the ground at non-existent grain... Sometimes, in the throes of a difficult choice between two strong motivators, the animal resorts directly to aggression, and the aggression can be aimed at the other group members, but also against the trainer. For this reason I prefer not to compensate higher danger with higher reward. In the situation described above, I would rather ask the other dogs to recede. So I would reduce the danger (PA), and as soon as the dog has seen that it hasn't suffered any damage, the dogs could approach again for next repetition.

As we have said already, the final figure results as  $IB = (K \times R) / (D \times PA)$ , i.e. (knows x reward) / (difficulty x probability of assault). From all principles of IB methodology, this is the most important: at each moment of training a group, the IB index should be the highest for the most dominant individual and decrease incrementally towards the weaker individuals.

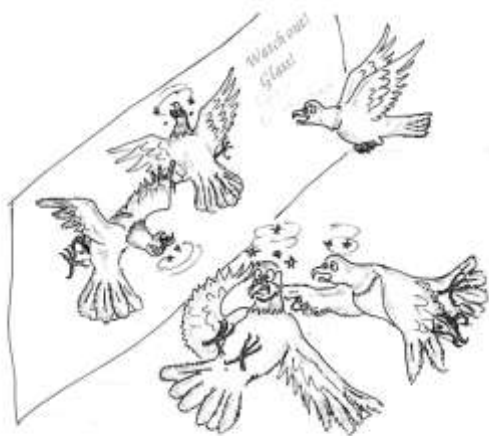
If this is not done, we will disrupt the balance and problems among the individuals will emerge. A classical example can be seen in a show with a group of seals. "Why does the male not want to sit in his place. Why does he aggress towardsthe females?" "Because thanks to his size, he is the dominant individual in the group. You have also asked him to sit on an unstable station rock that wobbles and has sharp edges. The females have flat stable station rocks. When the seals are sitting on their prescribed station rocks around the trainer, they are all participating with the same criteria in mind. All variables are the same for all of them..., except for D. The male sitting on the assigned wobbling rock has more difficult work (higher D), and therefore lower IB than the subordinate females. And he therefore tries to change it." "Well, and what can we do about it?" "Either do several separate training sessions and



reinforce him well for sitting on the wobbling sharp rock (increase K), or give him twice as many rewards than the females (increase R), or shift his station area to one that is closer to the trainer with the fish (closer to the food source means lower D). Or just underlay the stone to prevent it from wobbling, and smoothen the sharp edge (decrease D by normal common sense)."

When you watch a well-mastered show that features several seals, you will notice that the dominant males get many more rewards for simply stationing patiently on their assigned station point. Furthermore, the dominant individuals perform more behaviours. Their basic feeding station is situated further from water. The weaker females are closer to the pool, to ensure a free quick escape route if they feel they need it. Notice that while a smaller female is asked to exhibit a behaviour response, the stronger individual must be at the very least under the "stay" command. is done so The human is proactively distributing tasks and rewards, but does not disturb the "internal agreement" and thus the hierarchy among the seals. If they did, not only the strongest individual, but also the weaker ones would stop working. If we violated the rules, the weaker individuals would risk their health and safety, which is more worth than food....and then rest of chapter

Page 195 – A leader is different to a dominator (When we consider leadership in animal



*Oh my Leader. I am afraid that this calls for early elections.*

groups, the leader is the one, who is voluntary followed by rest of group, not the one who pushes the group by using power. In fact, the leader manages the group through positive reinforcement, the dominator by implementing aversive techniques. with all their side effects Compared with flock of pigeons – the one who dominates all the grain on the ground through his power is not the one, who is followed by the others into the sky. There are many other examples from the wild and an example in politics...)

*From page 197 the text goes like: ... Now*

we have spoken about dominators, about favoured brats, tolerated meritorious workers, weak or strong tyrants... But none of them is automatically the leader! The leader is not the one who has elected himself, but the one who was elected by the others. Not the one who pushes everything forward using force, but the one who announces his direction and this inspires others to follow him, because his way meets their needs best (both material and physical needs as well as the need for control). That is at least our human arrangement. We elect our leaders once every few years. There are no pre-election slogans like "I will beat up those who don't elect me!" So why do we expect different arrangement in animals?

The concept of leader could be appropriately expressed in ethology with these words: "the one whose behaviour most inspires the behaviour of the whole group". Let's imagine for example a flock of pigeons flying in the sky. On the ground, at a feeder full of grain, there is usually a dominator who pushes his way to be the first at the feeder. But such a dominator

can't use its force to get the the flock to take to the sky. How could it push dozens of pigeons to move in the right direction, and primarily, why? In the sky, the whole flock turns by itself to follow the one who, in their opinion, has taken the right decision and is worth following. Similarly to ethological indexes for calculation of dominance of individuals at the feeder with grain, we can calculate also the index for the leader in the sky. But it's not a simple formula with the categories win and loose. The leader of the flock in the sky is determined by a complicated time-space model which follows the direction and time of the movement of all the animals and looks at and records the order of who was the first to move in the direction that was then followed by the whole flock. Can you see the difference?

A herd of mouflons wants to leave the wood to go to the meadow close to the road, but they are not sure about safety. The oldest female sniffs the air, and then sets off peacefully towards the meadow. At that moment, the whole herd follows her. "She knows what is and isn't dangerous better than we do. When she isn't afraid, we are safe." The herd grazes, and suddenly a car passes along the road at the meadow. All animals raise their heads, but the old female remains quiet... and so the others go on grazing too. But the car stops, a man gets off, stands behind the car leaning his elbows on the hood and aims "a strange bar" at the mouflons. At that moment, the old female who knows this well hisses and the herd flees from the meadow hand over fist. The female needn't go around all individual animals and force them to retreat. If some of them stay there, it will stay at its own peril and bear the consequences. She won't wait for anyone. She has only done what is the best for her and for the others; and it's up to them to deal choose. She has warned them and shown them the way to safety - she has offered them the fulfilment of the primary reinforcer of control when they urgently needed it. The leader doesn't push, the leader is followed. The leader offers rare chances to be used by the wise. It is theoretically possible that several mouflons stay there grazing and won't follow the leading female. The next couple of seconds will determine whether it was a good choice. It's also possible that a half of the pack will run in another direction, following another leader who has emerged at that moment and trusted more by some in the herd. But both latter options are rather theoretical. The thing is that the leading female is the greatest security in moments of danger, the living fulfilment of basic needs of each herd member, and therefore it's not the best time to create personal variants when life is at stake. After one single hiss of the leading female, the herd leaves the meadow collectively. As we can see in our example, the leader is the one who gives, not the one who takes. The leader determines the rules that say - "if you go along with me, you will get this and that", instead of the dominator's rules - "adapt to what I want, and nothing will happen to you". The leader is in fact the athlete's trainer in the stadium who was discussed in the chapter *Good, bad and... positive*, while the dominator, pushing the other group members using force of his will and his muscles, is similar to the commander of the recruited soldiers. The leader directs the rest of the group through positive reinforcement, while the dominator, if directing at all, will be applying punishment. That's one of the reasons why a real leader can be physically weaker than the others without concern. In fact, he often doesn't choose his role at all; it is awarded to him ..

.....and rest of the chapter

Page 199 – Rules are here to help (This is a section about rules being positive and not persecuting. It is a description of training being about creating a safe place, that is a contract between trainer and animal)

Page 199 – When the leader has also to be dominator (there are some examples, when the leader has to show his power to the others or to be dominator. These examples are very uncommon in contrast with as it is expected by public....it is not easy to explain it in shortcut, this was the most complicated chapter for me from all the book, so I would rather to let you wait for full translation to understand what I mean)

Page 202 – The discussion in this chapter is about limits and whether they exist when we use positive reinforcement training. (There is discussion about the practicalities of training when we work with different species, and we discuss health and safety.

Page 205 –

Stories from practise

Bounty, Twixie and Tereza – (story of two parson terrier females of parson terrier, who were aggressive towards each other. They resided in an apartment. . Their owner successfully used the IB model explained above and counted the IB index for different situations during day. She successfully stopped the aggression between these dogs using this technique. This technique was originally was designed for lemurs and sea lions. The chapter includes copies of the forms she used to record and measure behaviour, and the IB model is explained step by step.)

Bounty, Twixie and Tereza



"All magic is in fact only a question of balance. And a good witch is the only stationary point in the centre of the seesaw." That's how magic works on Discworld according to Mr. Terry Pratchett. And magic in the seal shows works very similarly. Several hundreds of seal muscles are sitting in their places around the witch - their trainer who maintains balance exactly like the stationary point in the centre of the seesaw. Do you want the young female to

jump through the hoop? So first give a "stay" cue to the big one, and then let the smaller one jump. After she has jumped, first reward the big one for having stayed in place, then the small for having jumped, and then again the big one for having let the small one exercise. Do you want to call a weak individual, and you have a bucket with fish behind your back? In such case, first give a command to all individuals in the hierarchy above the weak one, or reward them twice as much, according to their status. Permanent thinking, permanent distribution of tasks according to their difficulty, and pragmatic rewarding the animals in the order of their hierarchy in the group. Because when you stop thinking, things can get moving quicker than you anticipate. Because a right witch knows that "you can set off an avalanche even by

adding a single snow flake in the right place." And therefore, even in animal training, you must look out for the small snow flake.

"I have two Parson Russel terrier females, Bounty and Twixie. Bounty is five and a half years old and she is spayed. Twixie is one and a half years old, and has just finished her second heat period. She will be spayed as soon as possible. The two dogs are very different from each other - Bounty is almost too quiet for a terrier, almost lazy, Twixie is enormously lively, she likes learning. We do a lot of sports. That's one of the reasons why Twixie gets more of my attention. Recently, Bounty's condition has deteriorated. She is even more passive. She stopped playing and has become increasingly withdrawn. During common walks, and recently even at home, there have been intense fights between them. Bounty growls, both of them stiffen for a couple of seconds, and then start fighting. When I pull them apart, Twixie behaves as if nothing has happened, but Bounty may be shaking and cowering for two hours. The fights can emerge during walks too, for example when Bounty runs in the park sniffing and Twixie continuously follows her. There are conflicts also when I return home with one of them and the other is waiting behind the door, or when they are lying down to sleep next to our bed. On the contrary, when we aren't at home, I can see on web cameras that they are good friends, play together and lie together on the bed. So all conflicts emerge only if I am present. What should I do?" I got this question from Tereza, the owner of two Parson females, two years ago before Christmas.

Let's imagine seals in show in their place, and let's use the IB index on them. Can we apply it here? IB is calculated only in cases where animals compete for the same resource. What is the resource here? Tereza, who is not only the source of treats but also of attention, praise, security... We know already that, unlike a seal, a dog relies on his owner for than only the primary reinforcer of food. They get all that from Tereza. So we have the answer to the question why the fights emerge only in her presence - the dogs compete for her. Bounty and Twixie definitely know each other. Is their hierarchy stable? . Even if Twixie is more active, learns faster, is more concentrated..., let's consider Bounty the dominant dog, the one with higher IB. And even her instability and worsened psyche lead to problems. And by the way, is it so strange that the older dog takes two hours to compose herself from fights, while the younger one is well right after the fight? Is it so strange that Bounty's condition has worsened so much as Twixie has been growing up? I don't think so. The thing is that Bounty is the dog who has something to lose here - her resources, her status, things she has had until now.

Twixie can only win something, and nothing happens if she doesn't.

So Tereza became a Parson Russel seal trainer for several months, and she started calculating the indexes of balance for joint daily situations. When I am on the bed and both dogs are next to the bed, where should Bounty be, and where should Twixie be? How should I arrange the encounter at the door when we arrive home? They even developed a joint exercise for critical moments, particularly if firecrackers sounded outside and the dogs were nervous. Even in this exercise, Bounty always had higher IB, either thanks to more rewards, easier or safer tasks, or she was closer to Tereza. And it was a good idea. Bounty got much better after just a few days; she started playing with toys again and wasn't so withdrawn. Twixie, on the other hand, didn't get any worse, calmly assuming her second-place role. Today, a year and several months afterwards, that home pack lives in peace, although the two terrier girls may get in conflict once every six months or so. But that can be managed. Tereza, as the right witch, can

manage the balance out of the "stationary centre of the seesaw" and anticipate situations when one snow flake could set off an avalanche. So I wish you, Tereza, Twixie and Bounty, that all imminent avalanches thaw before you!

### **The rules for the IB using:**

- 1) The Balance index (IB) for group behaviors can be only used for the groups, where the dominance status of each member is clear to every other members – the group members have known each other for a longer time and group is not changing (ideally the group members do live together). This can also be used only for situation, when the group members compete in the same one resource (food, the trainer), not for more different resources.
- 2) Every behaviors of each animal in group must be understood as a part of a complex group behavior.
- 3) For each behavior in every moment we have to manage the group so, that the IB has to be the highest for the most dominant animal and decrease for the rest of group with their decreasing hierarchy status. Another situation will probably lead to less effectively maintained group behavior.
- 4) The group behavior stays and falls with the control over the dominant members and even small, almost insignificant changes in control over the dominant animal will lead to bigger changes in subordinate members of the group. When seeing trouble in behavior of any submissive animal, this is often caused by loss of our control over the dominant one.
- 5) We can establish 4 variables directly influencing the success of each behavior. Two of them (K, R) increase and two (D, PA) decrease the probability that the behavior will be maintained. Two of them (K, D) are also specific for each behavior in the show, but other two (R, PA) are more specific for the animal than for the behavior. That is why the actual found value of R and PA will influence every behavior of each animal during all the show.
- 6) All the actual values of those variables for each animal we can simply identify from a group behavior, where the highest number of group members can participate in one moment (we say the behavior has “the highest capacity” – for example feeding around the trainer).

For detailed explanation of these rules see SUSTA 2011: *Balance Index for Group Behaviors – A Mathematical Way of Finding “Where is the Trouble”*. Wellspring3,4/12 (2011), the ABMA magazine: 24-31.

# Protocol for calculation of the „Balance Index (IB)“

## K – Does the animal KNOW the behavior?

- 0 – does not know at all
- 1 – it knows only some basic steps
- 2 – it knows the full behavior, but not under stimulus control
- 3 – the desired behavior is under stimulus control

## R – expected REWARD (the reinforcer, what animal can expect)

- 0 – no reward
- 1 – some reward, but not the favorite one food
- 2 – ordinary reward ( for ex. the food ordinary used in normal daily feed ration, not in training)
- 3 – ordinary reward (not standard part of the daily feed ration, but the most frequently used during training)
- 4 – “bonus” (like a “week jackpot”, for example a little more pieces of food used as a reward)
- 5 – „jackpot” (extra big reward)

Increasing the probability

Specific for each behavior

$$IB = (K \times R) / (D \times PA)$$

Specific for each animal - influences all the show

## D – DIFFICULTY (also control over resources)

How difficult the behavior is. This can be also understood as a control over resources (for ex. food), because the behavior is the way to reach the reward – to get control over it. For example when lemurs are sitting around the trainer, the highest control over resources and so the smallest level of D can be found by the animal sitting the nearest the pocket with rewards – the animal has the highest control.

- 1 – no difficulty (high control)
- 2 – small difficulty (high, but not maximum control)
- 3 – middle (middle control)
- 4 – high (small control)
- 5 – extremely high or impossible (no control over resources)

Decreasing the probability

## PA – POTENTIAL to be ASSAULTED

For example the PA increases for submissive animal when this is located right under the branch where a dominant aggressive animal is sitting. All the designated values depend on the species ethology, trainers sensing and knowing the animal.

- 1 – no potential (animal is not threatened by anyone in the group. May be the dominant animal),
- 2 – the potential would be actual only when conditions will change (for example dominant primate sitting under the submissive one could be under threat only if it’s dominance will change.)
- 3 – actually exist, but small level
- 4 – actually exist on high level
- 5 – “deadly endangered”

“Two practical examples how I (Tereza) calmed the situation between Bounty and Twixie:

1. Example – training tricks:

When both dogs got the same cue for the same trick in one moment, the IB looked like this:

For Bounty:

K = 2

R = 3

D = 2

PA = 2

IB = 1,5

For Twixie:

K = 3

R = 3

D = 2

PA = 2

IB = 2,25

It was always a danger situation and so I had to ask Bounty for easier behaviors but Twixie had to be asked at the same moment for more difficult behavior, which she knew well. I gave better reinforcers to Bounty and standard reinforcers to Twixie.

Final calm situation looked like this:

For Bounty:

K = 2

R = 4

D = 2

PA = 2

IB = 2

For Twixie:

K = 3

R = 3

D = 4

PA = 2

IB = 1,13

2. Example– coming home with Twixie from a walk, Bounty is waiting at home:

Originally I did not think about the situation and simply opened the doors and came with Twixie inside our flat...

For Bounty:

K = 0

R = 3

D = 1

PA = 5

IB = 0

For Twixie:

K = 0

R = 0

D = 1

PA = 1

IB = 0

This is why they so many times got to fight in this situation. It was necessary to have Twixie “under cue” for specific body position. First I had to get in touch and greet Bounty (which was her reinforce), then reinforce Twixie for waiting in specific position and then come inside.

Final calm situation is:

For Bounty:

K = 1

R = 4

D = 1

PA = 2

IB = 2

For Twixie:

K = 2

R = 3

D = 3

PA = 2

IB = 1

Page 209 - Rozárka and me – chapter about me and my dog, discussion if I am a good leader or not and if the story of leadership has any end. This chapter is my acknowledgement to my dog. Also explained is the theory of the “trust account”, something that my first teacher Steve Martin from Natural Encounters teaches about relationship between trainer and the animal.





## **X) CONCLUSION**

The book you just finished reading is filled with technical definitions and my own ideas, mixed together in a dense blend. And I can imagine that an attentive reader may find a mess in all that. Now it's time to sort all this out. To arrange it into a logical system, and particularly, to think about it, instead of blindly trusting. In such moments, a practical teacher can be of use; and as an animal is the best teacher, I will suggest one to you. It is an animal that, unlike a dog, doesn't forgive mistakes. It is an animal that is absolutely uncompromising and doesn't make any distinction between a person and a perfectly programmed machine. It is an animal that is such a coward that you frighten it willy-nilly, and so it will make you work with stress. That great teacher is... a guinea pig! Together with it, we will go through a kind of ten commandments of training.

The task is: Teach an untrained guinea pig to follow the sound of a rattle on the top of a table it hasn't seen before. You are not allowed to use luring, and on the contrary, you must use the clicker (in order to understand how to work with it). At this moment, the guinea pig is waiting in its cage where it has its little box and it looks happy. What will you do?

Step 1 - Agree on a reward: Firstly choose a good reward. As we know from the first chapters, the positive dialogue consisting of the words: CUE - BEHAVIOUR – BRIDGE – REWARD is built from behind... So at this moment, it's up to you to test the guinea pig in its cage to see what reward it prefers and whether it is able to take it from your hand; and the reward, of course, mustn't be harmful to its health.

Step 2 - Provide it with control: As the food for which we are going to work isn't the only need the animal has, we must first solve the other needs for our trainee so that they don't worry too much to prevent it from enjoying its food in peace. If you grab the guinea pig from the cage and place it on the table that it has never been on before, it probably won't take the rewards from your hand, even if it ate it in the cage. Why? Because at this moment, it is the more worried about the primary reinforcer of control (see chapter *Journey to the Centre of... Reinforcer*), and as long as it hasn't solved this concern, food will only come in second place. How do we solve this? If he is frightened, take its small box out of the cage and put it on the table. After it has calmed down inside its little box, you can proceed.

Step 3 - Agree on a "secret language": If the guinea pig has calmed down in the box and is looking out of the door of the box, it is sufficiently relaxed to hold the training dialogue with you. But you need more words than only the reward acquired in Step 1 for that. You definitely need a BRIDGE to indicate "you'll get the reward as you have performed successful behaviour; you don't need to go on". And before that, you also need the "first step for the animal (see chapters *Secret language*" and *What if he doesn't feel like doing it?*), This is when the guinea pig will show you that needs control and that it wants the rewards. So, he asks to START (see chapter *Horrors and desires*). The best first step for the animal will probably be the moment at which it has looked out of the box door. As long as it doesn't do it, we won't ask it for anything.

Step 4 - The shaping plan starts by asking for something the animal has already mastered:

Well, at this moment, the guinea pig is looking out of the box door. We mustn't miss that moment; from now on, we start shaping. Do you have a plan? I haven't reminded you to develop it? Ah, sorry... Well, now you should have a step-by-step shaping plan in your head, and you also must expect that in the end, things will take other course. Shaping (see chapter *Now we are teaching, not examining!*), i.e. gradual acquisition of a new skill, step by step, should start by something the animal masters already. What can our guinea pig do? For now, it only can look out of the box; so that's the first step to be rewarded. Further steps are up to you. I would suggest first rewarding more and more spontaneous leaving the box without luring by food; then I would start clicking before each reward, at shorter distances than those the animal can cover already. If the animal isn't afraid of the clicker, I would continue with the next step: click and reward a look at the rattle that I have put onto the table top for that purpose; and later, I would reward only a touch. In the last training steps, the rattle will change positions, rattling in between, to show the guinea pig what direction to go..., but that will occur only later on.

Step 5 - Reward, don't bribe: During the whole task, you must work with motivation so that it really is training and not desperate bribing. If the guinea pig is still afraid in its box, turning its back on the door, and I put a big dandelion into its box impatiently, to make it finally move, it may get frightened and not eat it anyway. Besides, it would see that the box isn't safe either, because some strange individual puts his hands into it, and at that moment the control provided at the beginning is gone. But let's imagine that the guinea pig is looking out of the door already, and I put a reward ten centimetres away from the door. And that "hairy beast" doesn't take it! Why? Because it is still afraid to pick it up. If I, wishing to lure the guinea pig out, shift the reward closer to the door, and then closer and even closer, so that it only has to stretch out its neck and take it, then I probably haven't taught it too much of leaving the door. On the contrary, I have taught it to wait until I put the food under its nose. The place from which the guinea pig finally was willing to take the food, is really the right place..., but we should have put the reward here from the outset rather than shift it there little by little. It would be ideal to put a piece of food at a distance for the guinea pig to look out of the door (behaviour) and take it immediately (reward). In further attempts, we would go rewarding farther and farther going out of the door. First the guinea pig gives a behaviour, then I give a reward, that is the animal training rhythm (see chapter *What if he doesn't feel like doing it?*). On the contrary, if "I first present an offer" and "the guinea pig considers whether it's worthwhile", then it's bribing, and the guinea pig, just like a corrupted officer, forces us to give more and more and closer and closer..., without doing anything.

"How can I estimate from what distance it will be willing to take the rewards?" you may be asking now. It is difficult indeed, and you certainly will make some mistakes. But to avoid converting the reward into bribe, let's do it as follows: The guinea pig looks out of the box - reward just in front of the box. If the guinea pig is afraid and doesn't come - the reward will disappear after a couple of seconds. That was a demonstration of short chance; but we must remember that at the same time, a negative scenario has taken place, and that the guinea pig won't perform the next attempt so willingly. So now the training must turn out well. The guinea pig looks out of the box again - the reward is placed right off so close that the attempt turns out well. The guinea pig has eaten the reward and is looking out of the box again; it

even has come one step out of the box - reward. And so on and so on. First the behaviour, then the reward, and always only a short chance, a short window of opportunity that is worth using (see chapter *What if he doesn't feel like doing it?*).

Step 6 - Be prepared for stress: Now everything seems to be all right and with each new repetition, the guinea pig comes farther and farther from the box to ask for work. But guinea pigs are cowards, and our guinea pig may get scared by something. It may take fright at the clicker sound or target movement. It even may take fright at the moving hand with the reward. What will it do at such moments? Disappear in the box! But that's not wrong at all. The box is there for such purposes. It contains a SAFE PLACE. Looking out of the box is START. The moment at which the guinea pig runs towards the box is STOP; and rewards are the reason WHY (see chapter *Horrors and desires*). But we must understand that each moment that frightened it was positive punishment, from the training perspective. The guinea pig got something it didn't want, in connection with its current behaviour, and that suppressed the behaviour. So if the guinea pig covered ten centimetres when coming out of the box and then got scared at the clicker sound, I won't wait for it to cover the same distance in next repetition, but I must be happy with some five centimetres and reward them without clicking. Only after several more repetitions, I will try the clicker again, but at a shorter distance, and perhaps clicking behind my back or under my shirt, to turn the sound down. The guinea pig has a right to get scared and to withdraw. We will just not reward at that moment. But at the same time, the scare showed that it was overstrained..., and we must take it into account next time.

Step 7 - Change your shaping plan: Well, have you perhaps seen that the guinea pig doesn't agree with your training plan? That may easily happen. The thing is that you are dealing with a live animal, not a piece of clay that you could shape according to exact do-it-yourself instructions. If one method doesn't work, try another one. This is required and recommended in Karen Pryor's shaping rules by Karen Pryor (see chapter *Now we are teaching, not examining!*). So don't be afraid of changing your plan; there are thousands of paths leading to one goal. But remember the new path with your guinea pig, or rather write it down. Because if something goes wrong and you must return to a crossroad, you must know how to back track down your path.

Step 8 - Breaking superstitions and "returning to kindergarten": Oh, it has happened! The guinea pig has gained experience, and you have noticed only now that it has learned a bad habit. You call it a mistake and the guinea pig insists on doing it. For example just now, you are training target touches, but the guinea pig doesn't touch the target, but rather touches your hand that is holding the target. You don't want this response; therefore you must go some steps to the moment before the mistake emerged. We must break the bad habit, or what has become a superstitious behaviour (see chapter *He does things wrong..., because he can't do them well!*) that can develop very easily. And we can change this behaviour only by going back to the moment before it emerged. So let's go!

Step 9 - Create the cue: Great, you are almost at the end. I suppose that now, you guinea pig is leaving its box without fear, moving on the table, putting his nose on the target, responding to the click and taking a reward. Some guinea pigs even don't go back to the box. But if you remove the box at this moment, the animal will probably be unhappy - the box is its security, and even if it doesn't make use of it, it must know that it is there, similar to a politician's

bodyguards who must know the position of a safe room in the building (see chapter *Horrors and desires*). Our goal was not the guinea pig touching the rattling ball at the end of the target. It was to follow the sound made by the rattle. Now you will insert a new cue before the old one that is understood already. The creation of cue often is the most difficult part of the whole training and it depends very much on exact timing and the animal's interest. If it doesn't understand the new cue there is a chance, it won't respond to it. Now we will discover whether your guinea pig is a sportsman or a recruited soldier. And also whether you give it the cue at a moment when it is focussed and concentrating. Rattling is the new cue. The old one well-reinforced cue is the guinea pig seeing the target ball. Let's wait till the guinea pig concentrates. It has just finished eating, looks with concentration, so let's rattle under the edge of the table top and then let's show the target ball in the same place. If the guinea pig, after a couple of repetitions, heads right off towards the sound, before seeing the target, you have created a new cue. You have managed it! You have taught the guinea pig to go to the place where it hears the rattle, on an unknown table top. Congratulations!

Step 10 - Become a leader: Just a moment, the congratulations must still wait! You have won a battle, but not the whole war... No, that isn't a good comparison, if positive training is not a battle but a dialogue. So let's formulate it better: you have managed the first conversation lesson, but you have several more years of studies ahead of you. And so has the guinea pig. Animal training is not about manipulating into one action. It is a dialogue about much more. It is about trust, securities, rules and commitments of the leader (see chapter *Pack leader*). To be a dominator to the guinea pig is easy. To be its leader..., if you manage it, let me know. Of course it won't follow you outside like a dog and won't chase prey in a common pack with you. To be a leader is a task that continues for your lifetimes together. If your guinea pig starts behaving less cautiously in your than in other people's presence, if it allows you to touch it without taking flight, it has started trusting you. It has afforded you recognition only an animal can provide. It has granted you a trust account. Deposit as much as possible into this account.

Good bye!



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**MANY THANKS!!!**

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