

# Shock Collar Experiments – Experiment Nr. 1

Carried out: Sornetan, Switzerland, Saturday, May 12, 2012  
by Leonard Cecil

## The background information

The use of shock collars in animal training is a hotly contested subject, one that is discussed on various levels. Much of what is discussed is not based on any real empirical data, but rather on opinions, traditions, assumptions. This applies to all sides of the arguments. Some of the most common utterances:

- „There is no such thing as shock in training – shock means something surprising and the animal know exactly that the stim. is coming.“
- „It's not shock, it's a stim – a way of getting the dog's attention.“
- „It's neither painful nor harmful to the dog.“
- „A dog that is trained with shock is an unhappy dog.“
- „A dog that is trained with shock is a happy dog.“
- „Using shock is dangerous to the dog and/or it's owners.“
- „It has been shown, that it's not painful, in fact it tickles.“

Each one of the above statements fails for one or more very obvious reasons. Some are strictly semantic. Some talk about a general emotional state that one can only assume, but not prove. So what can we prove about the use of shock? Probably very little – and we're not scientists in any case. Or perhaps enough, depending upon your viewpoint. But that is not the subject of this particular experiment. Although not scientists, we asked ourselves a couple of very basic questions and attempted to answer them systematically in a very limited situation, but one for which scientists might become interested and further examine. The questions we wanted to answer with this particular experiment were:

- ➔ Does shock feel different depending upon where the shock is administered? To what levels were the different subjects prepared to subject themselves – how different from each other were the tolerance levels of the individuals?
- ➔ What physical reactions (that could also indicate psychological concerns) were perceivable? Did these physical reactions correlate to how the shock was felt?
- ➔ How would the subjects classify the experience (pleasant, annoying, painful).

Some may ask, “Why do dog shock collar tests on humans?”. Well, there are a couple of reasons.

- ➔ Dogs cannot volunteer for such experiments and ethically, we wanted only volunteers.
- ➔ Dogs cannot tell us how they experience shock.
- ➔ After asking several DVMs and human doctors, no one could point to any definitive scientific evidence, that dog physiology and human physiology, especially in the bodily areas tested, would be sufficiently different to discount the sensations felt by humans as NOT being analogous to those felt by dogs – with the exception, that dogs do not sweat, which could effect the conductivity of the electricity – so we made sure, that all subjects' skin was dry where we applied the receivers. (See **Conclusion**) We filmed the tests to see if all subjects (representing dogs) reacted outwardly to the discomfort experienced in the same manner, for we know that no two dogs react the same to discomfort.

## The Experiment

The 7 subjects were all volunteers from amongst persons in attendance at a dog training course in Sornetan, Switzerland – 14 participants refused to take part. 1 participant (the writer) conducted the experiment. One subject was neither course participant nor course leader, but rather was helping the cook at the training center in the kitchen. Another subject was one of the 2 teachers of the course. The trials were all filmed with a Nikon Coolpix s8100 digital camera. Editing was done only to cut out things like explanations of the equipment, obvious mistaken usage (hitting the wrong button) or chatter not relevant to the experiment.

First the subject completed a short questionnaire asking for personal data and asking if he/she had ever had contact with shock collars. They were individually introduced to the shock collar system, a PetSafe Deluxe system consisting of the receiver with two contact prongs and the sender with 10 levels of shock, a sound button and an activity light. Both the receiver and the sender had new batteries. The subjects were told how to administer the shock to themselves and that they would, on a scale of 1 – 10 (1 being no feeling/pleasant and 10 meaning „I want no more“) tell how they would categorize the sensation from the receiver. They were free to stop at any point they determined was enough, even if it wasn't already at 10 on this scale. And they were also free to continue even if they had already reached level 10 previously in that test. In this manner the one perceived level of shock formed a baseline for the subject in order to gauge the relative strength of the next level. So for example, if the subject found **level 3 to have a perceived strength of 4** on the scale and **level 4 to have a perceived strength of 8** on the scale, then the subject perceived level 4 to be twice as strong as level 3.

There were 4 Tests of the experiment in which the receiver was placed on different parts of the body:

- ➔ **Test 1** – the receiver laying on the open palm with no pressure, just the weight of the receiver keeping the contacts on the skin
- ➔ **Test 2** – the receiver being held onto the open palm by means of the strap in such a manner, that the receiver could not move if held vertical to the table, but where one could still slip one finger under the prongs, as stipulated in the manual, on how to adjust the collar to the dog.
- ➔ **Test 3** – The receiver strapped onto the top of the subjects forearm in such a manner, that the receiver could not move if held vertical to the table, but where one could still slip one finger under the prongs, as stipulated in the manual, on how to adjust the collar to the dog.
- ➔ **Test 4** – The receiver strapped to the subjects neck in such a manner, that the receiver could not slip down, but where one could still slip one finger under the prongs, as stipulated in the manual, on how to adjust the collar to the dog.

The tester identified each step in the experiment in English, for example by saying „Test 1, level 1“ which meant Test 1 (receiver laying free on the subjects hand), level 1 of shock. At each new level, the subject had to move the dial him-/herself to the next level and could press the shock button at any time thereafter. The subject then, as explained, gave on the scale of 1 – 10 the perceived strength of the shock as they experienced it, in their own native language of either High German or Swiss German.

Directly after the last test, the subjects were asked a series of questions which can be found at the end of the Datasheet.

The tester entered the results into a database made for this experiment with the computer program Filemaker. The results were then exported into an Excel table and analyzed.

## The results

The first observation we could make was, that obviously the shock was not being delivered “properly” every time when the button was pushed, indicating some kind of „misfire“. In some cases, it would appear that either the button was not pushed fully, was not pushed long enough or the sender did not make contact with the receiver, although the signal light on the sender did light up every time. While it is impossible to know exactly what happened, many subjects either did not feel the shock at certain times or it did not progress in strength, my own pre-tests confirmed, that there were times in which no shock was felt, although the button was pushed, even when held and the distance was only several inches away. Often a second or third try however would cause a shock to occur. There seemed to be no pattern, as to at what level this occurred. No particular level seemed more prone than another to „misfire“. This problem was also seen in further private tests with a PetSafe Guardian 5 level system and a cheap generic system with 8 levels, although this was more prevalent with the cheaper system. These of course were not part of this test so cannot truly be included in any data concerning this specific test. Nor can reports from other users on the internet (eBay, Amazon etc.) be statistically useful, but do point to a question about the general dependability of these and other shock systems, as this „misfiring“ is often reported across all price ranges of shock collars.

When we look at the Datasheet, we can see how the following questions are answered through the analysis of the data:

Questions „Does shock feel different depending upon where the shock is administered?“ and „To what levels were the different subjects prepared to subject themselves – how different from each other were the tolerance levels of the individuals?“.

It would appear, that the placement of the receiver on the subject did make some difference. Comparing simply the average tolerable level (the average level at which the subject ended the test), we see:

- Test 1 (laying on the hand) an average level of tolerable shock being Level **7.43**
- Test 2 (strapped to the palm of the hand) an average level of tolerable shock being Level **7.29**
- Test 3 (strapped to the forearm) an average level of tolerable shock being Level **6.29**
- Test 4 (strapped to the neck) an average level of tolerable shock being Level **4.71**

This would indicate, that the arm and especially the neck placements were more sensitive than those of the hand. One could tolerate almost twice as high levels of shock on the palm of the hand than on the neck. The reasons for this may be explained later.

Few subjects could actually tolerate the higher levels of shock as the bodily positions progressed from one test to the next – for example whereas in Test 1, 4 people were able to tolerate levels up to level 10, in Test 2 only 2 people could and only 3 people up to level 8. This would indicate, that the pressure which is exerted between receiver and tissue often will cause a more intense shock, permeating into the tissues below the skin and spreading outward. More about this below.

The end effect being how many could take each Test how far:

**Test 1** - 4 subjects were able to complete the test up to and including level 10

**Test 2** - 4 subjects were able to complete the test up to and including level 6, 3 subjects to level 8, but now only 2 subjects could tolerate the shock up through level 10

**Test 3** - 4 subjects were able to complete the test up to and including level 6, 3 subjects to level 8, but now only 1 subject could tolerate the shock up through level 9 with none reaching level 10

**Test 4** - While all subjects were able to tolerate up to level 4, only 5 could tolerate level 5 and only one reached level 6, with none being able to tolerate any higher.

During Test 3 (forearm) the highest level tolerated was level 9, with the perceived strength of 10. This was even more apparent when comparing this with the results of the receiver having been strapped to the neck where everyone tolerated the shock up to and including level 3, with 3 subjects stopping at level 4 with a perceived strength of 10 and only 4 subjects tolerating level 5, but of those 4 subjects, only one subject dared to try level 6 and perceived that as a strength 10. Those subjects stopping at level 4 described the strength at being between 8-10.

For example Test 3 level 3 compared to Test 3 level 4

Subject 1 – 1 → 1 (perceived strength)

Subject 2 – 8 → 10 “

Subject 3 – 3 → 7 “

Subject 4 – 3 → 4 “

Subject 5 – 4 → 6 “

Subject 6 – 8 → 10 “

Subject 7 – 3 → 5 “

It becomes apparent, that no two people experienced this shock at the same place on the body in the same manner, but it did make a distinct difference where and how the receiver was applied, comparing one subject to the other and one place to another.

Something that 5 of the subjects did experience though, was that the shock experienced with Test 1 was different than the other tests, in that it was localized and did not radiate or spread. One subject felt the shock weaker, but further spread out and that strapped down on the hand was less uncomfortable. Another felt generally no difference between tests of how the shock was experienced. This conversely means, that most of the subjects (5 of 7) did experience the shock differently, deeper, with greater secondary effects, when the receiver was strapped down to simulate it being held firmly on the dog's neck such that it cannot slip down (see PetSafe Deluxe Manual, p. 5 “Place the activated receiver high on the underside of your dog's neck”. Therefore previous trials by other people, especially found on the internet, in which shock delivered to the hand was found to be amusing or not painful<sup>1</sup>, will not necessarily transfer to shock delivered (see **Conclusions**), for example to the neck region, which of course is where a dog wears a shock collar, not on her paw.

Five of the subjects, described Test 2 as the shock traveling into the fingers from the point of shock, some with a sensation lasting up to a half hour or more after the shock had been administered (see Appendix 1). This was only a series of max. 10 shocks per test, all tests having taken place in less than 10 minutes each, much shorter than an average training session. All perceived the shocks administered to the arm and more importantly to the neck to be much stronger than those delivered to the palm of the hand, some with longer lasting after effects – see Appendix 1.

Here is one explanation from an electronics expert, Mr. Alan Pacanowski (Tobyhanna, Pa., USA, Dept of Defense, electronics mechanic) as to what we are dealing with in terms of shock being applied to living tissue. He wrote to my question concerning what kind of electrical shock shock collars deliver and why it works the way it works – for example, some companies, including PetSafe claim, that shock collars produce *static electricity*:

„Static electricity is produced from the triboelectric effect which means that when two things rub together they develop electrical charges. This is what happens when you rub your feet on a carpet and get shocked by touching metal. The same happens when air masses rub along with ice crystals and rain drops etc. and lightning is produced, which is the most deadly and powerful form of electricity that we know of. People don't realize static electricity can vaporize you! Anyway, there is nothing rubbing together in a shock collar used to make static electricity. An excellent example of a static generator is the Van de Graaf Generator which is a motor driven rubber belt that brushes against a metal sphere thereby producing an electrical charge

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<sup>1</sup> For example <http://www.youtube.com/watch?v=C6ObCoJh3I>

on the sphere. By contrast, the electricity produced in the shock collar is made through electronic circuitry, most likely using oscillators, transistors, capacitors etc. But it doesn't really matter and here's why.....

Electricity boils down to the movement of electrons, that is all it is. It doesn't matter which "type" of electricity it is. The electrons are the current and the force that propels them is the voltage. Any hindrance to their movement is resistance. Once again it doesn't matter about the „type“ of electricity. DC, direct current, means the electrons travel down the wire in only one direction. AC, alternating current, means those same electrons will travel down the wire first in one direction and then reverse to the opposite direction. Static is a charge, a pile of those same electrons, that are sitting there under pressure (voltage) just waiting for a trigger. Once they get their trigger, (like your finger touching metal after you walked across a carpet), then they become DC current and spark to the metal. It is DC because it is moving in one direction...that is all there is to it. Electrostatic voltage is the same measurement as DC voltage, however AC voltage is an average measurement because AC never has a constant amplitude.

When you get a medical test done like an EKG, they attach electrodes to your body using suction cups and a conductive gel. The conductive gel ensures a good electrical connection between the electrode and the body. Skin is not a good conductor and the dryer it is, the more resistance to current flow it has. The inside of the body is much more conducive to current flow because it has a very high moisture content. The more you can dig in to the skin, the better the connection, the closer you are to all that internal moisture and the more current will flow. (when your car won't turn over, the first thing you check is the connection on the battery cables. A loose connection produces a higher resistance to current flow) You should get more current flow through a thin skinned area than a thick skinned area, skin moisture being constant. Add moisture and especially salty sweat and resistance goes way down and current goes way up. It is actually proportional.  $Voltage = current \times resistance$ . Then that means  $current = voltage \div resistance$ , which means when resistance decreases then voltage increases.

Also, The harder the electrodes are pushed against the skin, the more surface area is contacted between the skin and electrodes, which decreases the resistance of the circuit which increases the current.“

As to the question from above „*What physical reactions (that could also indicate psychological concerns) were perceivable? Did these physical reactions correlate to how the shock was felt?*“, one can watch the video excerpts ( [subjects 1-3](#) and [subjects 4-7](#) ) It's very interesting to note, that the physical expressions exhibited did not always seem to reflect the level of discomfort the subject then gave for that level. This was especially apparent with subjects 2 and 6, who didn't seem to display any large involuntary reactions to the shock, yet seemed to have a very low tolerance for shocks, whereby subject 5, showed a high tolerance for the shocks while displaying physical reactions to most of the shocks he administered.

And we also have to be very clear here. Even the PetSafe manual says that this low level starting point will need to be increased one level at a time if the dog at some time does not respond to the shock (p. 6) “If your dog shows no reaction to the stimulation level, go up one level at a time until you find the proper level for your dog.” with the admonishment “Your dog should not vocalize or panic, if this happens, the stimulation level is too high.” As we've shown, this condition can happen at low levels with some subjects (dogs) with no or little outward signs, but at perceived strengths that can still be intolerable.

Another thing that these videos of the experiment show, are correlations between actual shock levels on the sender, perceived shock and physical manifestations of discomfort (or not), as opposed to many of the seemingly humorous videos found elsewhere. There was a distinct determination by many subjects at the end-point to say „that's enough“. Perhaps the Swiss are more reserved in their expression of the discomfort received by shock, or those shown elsewhere may not have been done „seriously“. What was also interesting to notice was, the tendency to laugh lightly as the shock became progressively stronger. This seemed to be an innate reaction, having nothing to do with humor or happy feelings. This will be an interesting question for the psychologist during the analysis of the next experiments.

## Conclusions

As with most things in life, asking questions garners answers, which in turn beg new questions. And additionally, those who claim to have the answers, probably only have those answers they want to have. Before publishing this experiment I've shown it and it's results to several people and gotten also several questions/comments from them to consider.

So what questions were begged as a result of this test?

➔ *Can one directly correlate how humans feel shock with how dogs feel shock?*

No, of course not. We cannot ask them, if they feel spreading pain from their throat into their chest. We cannot ask them if the pain was superficial or seemed to drive deep into tissue. But in this case, there is also nothing that says, that the tissue involved is any different, which means there is also no reason to believe they do NOT experience the pain in the same manner. While looking at the total results of the tests, especially at the results of Test 4 (neck), one can hypothesize, that the basic findings in terms of scale of results could correlate, but we still don't know for sure, how the dogs show their discomfort and at what point. We can hypothesize, that because no two dogs react alike, just like no two humans react alike, there will also be large differences in terms of at what level they react. But this experiment was more to show how wide that range of perceived pain with one species can be. There is nothing that rules out this same wide range of reaction in dogs.

➔ *Can one take these relative subjective findings with humans and extrapolate, that dogs will either show the perceived pain at similar levels as humans in this experiment did?*

While looking at the total results of the tests, especially at the results of Test 4 (neck), one can hypothesize, that the basic findings in terms of scale of results could correlate, we still don't know for sure, how the dogs show their discomfort and at what point. We can hypothesize, that because no two dogs react alike, just like no two humans react alike, there will also be large differences in terms of at what level they react. But this experiment was more to show how wide that range of perceived pain with one species can be. There is nothing that rules out this same wide range of reaction to dogs. So the question is still open – when as the PetSafe manual says, to progress up the levels to the point where the dog “ turn their heads slightly in curiosity, scratch at the collar, or flick their ears”, is that at the point compared with humans, where they will notice the shock or where they already have enough? And if one gets where the same manual says you shouldn't go, namely where the dog panics, is that the same point where the human say “finished” or is that already way past that point? There are enough examples of this point having been reached or past on the internet, judging upon the reactions of the dog – one that bites it's own owner as a result of receiving a series of shocks that had set it crying

shortly before<sup>2</sup> or yelping and throwing itself at the foot of the human holding the leash after having received repeated shocks<sup>3</sup>. We can't know where as compared to the shocks the humans in this test experienced, the dog at that moment experienced them.

➔ What other elements in the perceptions of pain can play a contributing role?

The most obvious element that one has to consider is the psychological element. The humans knew in this experiment, that this was a test. They had the sender in their own hands and could “prepare” themselves for the coming discomfort. Perhaps they were relieved, that it wasn't as bad as they thought it might have been. Perhaps they were “shocked” at the comparative level of the next shock. They had, however, a rough idea as to what to expect and for how long and why, and they could end the test at any point.

How does this differ to an animal, which has no say as to how long this discomfort occurs and may not even understand why it's happening or how it can escape it? For this IS one of the principles of shock training. Many even label this “avoidance training”, ie learning to avoid the behavior that sets off the discomfort. And the discomfort does need to be great enough, that the animal will want to avoid it.

Dogs can't know if and when this discomfort will end – so does it make a difference if they know it's coming or if surprised by it? In other words, is the perceived discomfort greater, when one does not know when it's coming or why? While shock trainers claim, that the animals knows exactly why it's being shocked, how do they know this? With conditioned shock they learn to expect the shock, BUT it's not always delivered, as the conditioned tone acts as a warning and if the dog complies, the shock is not delivered. So do they really also know, with conditioned shock WHEN it's coming?

➔ What other experiments are being planned to what purpose?

Thinking about the questions raised above, there are two other experiments planned.

**Experiment 2:** There are two main manners of using shock in training:

- 1) to punish unwanted behavior, and/or to stop it. This reflects the +P operant quadrant. If the dog does not immediately stop, the shock will be continued until it is stopped, meaning -R – the stopping being the reward.
- 2) to train and reinforce the trained behavior through what is called avoidance training. Shock is administered until the dog offers the wanted behavior. When the desired behavior is completed, the shock is stopped as the “reinforcer” and fulfills the definition of negative reinforcement or -R.

The trainer will train a set of behaviors for max. 10 minutes. The trainer will train in a language unfamiliar to the subjects. The subjects will then be interviewed as to how they perceived the shock in terms of strength and how they “felt” emotionally. The tests will be filmed and shown to a psychologist who will comment on body language, mimic and tone of voice. It will also be noted, if the training goals were reached in this time constraint and if so, how long it took to get a minimum of 90% compliance.

**Experiment 3:** The question that is on everyone's mind however is, “Is training using shock more effective than training without any such painful punishment?” We cannot answer such a question definitively, but we can do an **Experiment 3** with the same subjects under the same conditions (10 minutes, foreign language), comparing so-called “positive training” (without shock or other aversive) with shock methods from Experiment 2.

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2 <http://www.youtube.com/watch?v=GptupfqLYwc>

3 [http://www.youtube.com/watch?v=\\_SIPQn6C2rU](http://www.youtube.com/watch?v=_SIPQn6C2rU)

## **Thanks**

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## Appendix 1:

Statements concerning the differences in the type of shock felt as a result of the question:

Was the type of discomfort experienced the same from test to test or did the sensations in terms of locality, degree, type and persistence differ according to where the receiver was placed? Was pain or discomfort felt anywhere else during or after the tests?

### Subject 1

Test 1 war viel harmloser als die nachfolgenden. Bei anliegendem Empfänger war die Empfindung deutlich unangenehmer, aber immer noch lokal. Nur am Hals hielt der Schmerz noch minutenlang an.

*(rough translation) Test 1 was much less serious in terms of lasting effects. Where the receiver was strapped on, the sensations were clearly more discomforting, but still localized. Only when worn on the neck did the effects of the shock continue for several minutes.*

### Subject 2

Bei Test 1 war es am Anfang grossflächiger und dadurch abgeschwächer. Wo dann das Gerät "festgeschnallt" wurde habe ich es intensiver und stärker gespürt.

Test 3 strahlte es schon extrem aus da eine der Kontakte direkt auf dem Muskel lag, es dauerte auch noch einige Minuten bis es versurt war. Test 2 nicht. Test 4 ging auch sehr weitreichend in den Körper, "drückte" nachher schon etwas auf den Hals und Brustkorb.

*(rough translation) With Test 1 the shocks spread in the beginning superficially over a wide area and therefore less intense. Where the receiver was strapped on, I experienced the shock more intensely and strongly.*

*The shocks received during Test 3 (arm) radiated extensively, due to the receiver laying directly on the muscle. It took several minutes before the sensation went away. With Test 2, this was not the case. Also the pain from Test 4 (neck) radiated far into the body and "pressed" after the shocks in the throat and chest.*

### Subject 3

ich empfand keinen Unterschied zwischen Empfänger einfach auf der Haut gelegt und mit Druck auf der Haut.

Aber ich hatte das Gefühl es fand eine leichte Gewöhnung statt um so öfter man dem Reiz ausgesetzt war, kann aber natürlich auch daher kommen das man von Mal zu Mal genauer wusste worauf man sich einlässt.

*(rough translation) I didn't notice any difference in the way the shock was felt, whether laid on my hand or strapped on.*

*I did however find, that to a small sense I got used to how the shock felt from test to test, probably because I had learned what to expect.*

#### **Subject 4**

also ich empfand den unterschied sogar als sehr gross...bei anliegendem empfänger war der "schmerz" viel stärker und er ging auch viel weiter...am arm verteilte er sich in oberarm und hand und am hals runterwärts und in den kopf sogar...man sah es ja auch daran, dass die gesamte hand gezuckt hat....außerdem empfand ich bei anliegendem empfänger hielt der schmerz länger an, bzw. schmerzte noch nach.

*(rough translation) I experienced the difference between Test 1 and the strapped on tests as being very large...when strapped on, the "pain" was much stronger and spread also much farther...on the arm this pain spread to the upper arm and the hand, while on the neck the pain spread downwards and even into the head....one saw how the hand jerked....besides that, the pain from the strapped on receiver lasted longer, meaning it did not go away but lasted after the test.*

#### **Subject 5**

als der schocker nur auf der Hand lag, kitzelte es mich in den tieferen Stufen, auch die höheren Stufen waren viel weniger intensiv. ... bei test 1 ein lokales Kribbeln. Bei anderen weiter verteilt, am Hals, sogar Gefühl, Schock geht durch ganzen körper.

*(rough translation) The receiver's shock only tickled as it lay on my hand during the lower levels, but also the higher ones were much less intensive...Test 1 was just a localized tickling. But with the others, the pain was spread, and when it was on my neck, the shock went through my entire body.*

#### **Subject 6**

Als der Empfänger am Hals war, war die Intensität für mich am schlimmsten. Danach, beinahe auf gleicher Stufe, aber ein wenig weniger schlimm war das am Arm.

In der Hand liegend war am drittschlimmsten.

In der Hand, aber mit dem HB fixiert war am "angenehmsten" bzw. am wenigsten schlimm

Am Arm hatte ich noch ca 25-35 Min eine Art "Nachbrenner", das hatte ich an keinem der anderen Hautpartien an meinem Körper, die dem Strom ausgesetzt waren. Es tat einfach noch weh, wurde aber dann langsam besser.

*(rough translation) As the receiver was on my neck, the intensity of the shock was the worst. The next worst, but almost at the same level was the shock on my arm.*

*Just laying in my hand was the third worst.*

*Strapped onto my hand, the shock was the least painful.*

*About 25-35 minutes after the Test 3, I had "afterburns", which means that it still hurt, something that I didn't get on any other part of my body. It hurt, but gradually died out.*

#### **Subject 7**

Nur bei dem aufgelegten Gerät (Test 1) war die Empfindung insgesamt weniger stark. Bei Test 2 haben die Finger gezuckt, ebenso bei Test 3 wo der ganze Arm bewegt hat.

Für mich war ausserdem ein deutlicher Unterschied dann bei Test 4, hier war die Empfindung (obwohl eigentlich noch nicht so schmerzhaft) schon auf den unteren Stufen deutlich unangenehmer.

*(rough translation) It was only when the receiver lay on my hand (Test 1) that the sensations were less strong. During Test 2 the shock also jerked my fingers, with Test 3 my whole arm.*

*For me there was a clear difference between Test 4 and the others. The shock sensations (although actually not yet so painful) were already at the lower levels clearly more uncomfortable.*

# Shock Experiment 1 – Datasheet

Shock Experiment Nr. 1  
Sometan, Switzerland  
May 12, 2012

Subject	Age	Test 1 – hand	Have you ever had contact with a shock collar before this experiment??	PS 305 Level 1 hand	PS 305 Level 2 hand	PS 305 Level 3 hand	PS 305 Level 4 hand	PS 305 Level 5 hand	PS 305 Level 6 Hand	PS 305 Level 7 Hand	PS 305 Level 8 Hand	PS 305 Level 9 Hand	PS 305 Level 10 Hand	Average highest shock level
Subject 1	59	No		1	1	1	2	1	2	5	1	8	10	10
Subject 2	34	No		1	1	3	7	10						5
Subject 3	28	No		1	4	10								3
Subject 4	33	No		1	1	3	4	6	7	7	8	8	9	10
Subject 5	19	No		1	1	3	6	7	8	8	8	9	10	10
Subject 6	45	Yes		1	6	8	10							4
Subject 7	31	No		1	1	2	2	4	8	8	9	10	10	10
average age:	35.57		<b>average perceived strength</b>	1	2.14	4.29	5.17	5.6	6.25	7	6.5	8.75	9.75	7.43
			<b>number of participants for this trial</b>	7	7	7	6	5	4	4	4	4	4	
			<b>lowest perceived strength</b>	1	1	1	2	1	2	5	1	8	9	
			<b>high perceived strength(*)</b>	1	6	10	10	7	8	8	9	10	10	

(\*)Not everyone stopped the test at level 10. While some said it was a „9“ this was enough for them to stop the test at this level, because of fear of how bad the next level would be

Shock Experiment Nr. 1  
Sometan, Switzerland  
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Subject	Test 2 – hand (strapped)	PS 305 Level 1 hand2	PS 305 Level 3 hand2	PS 305 Level 4 hand2	PS 305 Level 5 hand2	PS 305 Level 6 hand2	PS 305 Level 7 hand2	PS 305 Level 8 hand2	PS 305 Level 9 hand2	PS 305 Level 10 hand2	Average highest shock level
Subject 1		1	1	1	1	2	5	9			8
Subject 2		1	3	6	9	10					6
Subject 3		1	1	8	10						5
Subject 4		1	2	3	4	5	7	8	9	9	10
Subject 5		1	2	2	3	5	6	7	9	10	10
Subject 6		1	4	6	10						5
Subject 7		1	1	3	6	9	10				7
	<b>average perceived strength</b>	1	2	4.14	6.14	6.2	7	8	9	9.5	7.29
	<b>number of participants for this trial</b>	7	7	7	7	5	4	3	2	2	
	<b>lowest perceived strength</b>	1	1	1	1	2	5	7	9	9	
	<b>high perceived strength(*)</b>	1	4	8	10	10	10	9	9	10	

(\*)Not everyone stopped the test at level 10. While some said it was a „9“ this was enough for them to stop the test at this level, because of fear of how bad the next level would be

Shock Experiment Nr. 1  
 Sornetan, Switzerland  
 May 12, 2012

Subject	Test 3 – arm	PS 305 Level 1	PS 305 Level 2	PS 305 Level 3	PS 305 Level 4	PS 305 Level 5	PS 305 Level 6	PS 305 Level 7	PS 305 Level 8	PS 305 Level 9	PS 305 Level 10	Average highest shock level
		Arm	Arm	Arm	Arm	Arm	Arm	Arm	Arm	Arm	Arm	
Subject 1		1	1	1	1	1	1	5	9	10		9
Subject 2		1	3	8	10							4
Subject 3		1	1	3	7	10						5
Subject 4		1	1	3	4	6	8	8	10			8
Subject 5		1	2	4	6	7	8	9	10			8
Subject 6		1	6	8	10							4
Subject 7		1	2	3	5	7	10					6
<b>average perceived strength</b>		1	2.29	4.29	6.14	6.2	6.75	7.33	9.67	10		6.29
<b>number of participants for this trial</b>		7	7	7	7	5	4	3	3	1	0	
<b>lowest perceived strength</b>		1	1	1	1	1	1	5	9	10		
<b>high perceived strength(*)</b>		1	6	8	10	10	10	9	10	10		

(\*)Not everyone stopped the test at level 10. While some said it was a „9“ this was enough for them to stop the test at this level, because of fear of how bad the next level would be

Shock Experiment Nr. 1  
 Sornetan, Switzerland  
 May 12, 2012

Subject	Test 4 – neck	PS 305 Level 1	PS 305 Level 2	PS 305 Level 3	PS 305 Level 4	PS 305 Level 5	PS 305 Level 6	PS 305 Level 7	PS 305 Level 8	PS 305 Level 9	PS 305 Level 10	Average highest shock level
		Neck	Neck	Neck	Neck	Neck	Neck	Neck	Neck	Neck	Neck	
Subject 1		1	1	1	2	5	10					6
Subject 2		1	5	9	10							4
Subject 3		3	4	7	9	10						5
Subject 4		1	1	3	4	8						5
Subject 5		1	3	4	6	9						5
Subject 6		1	4	6	10							4
Subject 7		1	3	7	10							4
<b>average perceived strength</b>		1.29	3	5.29	7.29	8	10					4.71
<b>number of participants for this trial</b>		7	7	7	7	4	1	0	0	0	0	
<b>lowest perceived strength</b>		1	1	1	2	5	10					
<b>high perceived strength(*)</b>		3	5	9	10	10	10					

(\*)Not everyone stopped the test at level 10. While some said it was a „9“ this was enough for them to stop the test at this level, because of fear of how bad the next level would be

Shock Experiment Nr. 1  
 Sometan, Switzerland  
 May 12, 2012

Subject	Did you find the shocks generally pleasant, annoying, painful, OR no one answer?	Some special schools in the USA use shock as a punishment. Are you for or against this?	In Switzerland only those with a permit may use shock on animals. In your opinion, shock should never, under certain circumstance OR alway be permitted.	Would you participate in further shock experiments?
Subject 1	painful	against	never	yes
Subject 2	no one answer	against	never	yes
Subject 3	no one answer	against	never	yes
Subject 4	no one answer	against	never	yes
Subject 5	no one answer	against	never	yes
Subject 6	no one answer	against	never	yes
Subject 7	painful	against	never	yes