Message from the Hon. President Dr Andrew McLean

2013 is galloping along and our next conference in Delaware, USA is well on the horizon: just over 4 months away.

ISES conferences are still going strong on a yearly basis – at one point we were uncertain if the research velocity could be maintained but currently it certainly seems so. For many of us, it’s an annual pilgrimage to meet old friends and make new ones, and if you are hesitating about making the trip please do all you can to do so, as the advantages of meeting and exchanging ideas with colleagues is invaluable. I look forward to seeing you there.

It is with regret that I must report the resignation of our honorary Secretary, Marc Pierard. The news is not all bad as Marc has just learned that he has a PhD position at long last, however with his health still fragile he felt unable to continue to juggle all of his current activities. I know Marc will still be involved heavily in ISES activities and research and I wish him the best for the future. In the interim period, Camie Heleski has shown characteristic generosity and stepped in until the AGM this year.

I’m writing this in my hotel room in North-East India where I’m foundation training young elephants in Kaziranga National Park that are used for anti poaching work. So not exactly horses, but equitation science for elephants!

Warm wishes and see you soon,
News and Reports

From our new Veterinary Liaison Officer, Gemma Pearson

Having taken up the position of Veterinary Liaison Officer last summer I have had quite a busy time. The talk I presented in Edinburgh at I.S.E.S. 2012 highlighted the need for equine vets to understand learning theory in order to complete their job safely and without stress involved for the horse, owner or vet.

Subsequently Horse and Rider magazine published an article on the presentation and I was asked to write an article on stress in horses by Horse and Hound magazine, both increasing awareness of Equitation Science in the U.K.

2012 gave me the opportunity to give lectures on Equitation Science to horse owners at several veterinary practices and a riding club in Scotland and the north of England.

After each talk there was a great opportunity to discuss cases and analyze video footage with the practice vets. We looked at application of learning theory to challenging horses, usually using overshadowing and positive reinforcement techniques. A trip to Cork, Ireland involved working with impounded stray horses and training the people involved in their care.

Obviously one of the best ways to influence the veterinary world is to influence the undergraduate population. I am very lucky that at Edinburgh Vet School I have the opportunity to teach the undergraduate students learning theory through tutorials and demonstrations on challenging cases within the hospital. This has led to increasing pressure from students to incorporate equine learning theory into the veterinary course.

2013 has already started with a talk for veterinary clients at a practice in North Yorkshire and interest in subsequent clinics.

Visit the ISES website!

Have you been to the ISES website lately? The news area is regularly updated.

In the member area, a menu allows to navigate for example to the AGM minutes or announcements for recent employment and research opportunities in equitation science.

If current members have lost their password, they can contact our communications officer Elke Hartmann - info@equitationscience.com and she can send a password recovery email.

New members receive the password automatically after membership is accepted. Members have the possibility to choose their own password and change username after log in under the menu ‘My Account’.

Every member is encouraged to fill in their contact information. This is automatically transferred to the ISES membership database so members no longer need to inform us about changes to their contact details.

The website will be updated regularly and members are encouraged to contact us with suggestions for improvement or if experiencing problems, use the contact form or email: info@equitationscience.com
The ISES video explaining the correct use of the ISES Noseband Taper Gauge is nearing 4500 views.

If you haven’t watched it, you can find it on this link: http://www.youtube.com/watch?v=H7DkQ_v48pM

Share it!

The ISES Training Principles poster is available as a pdf file from the ISES website on this link:


The pdf file is formatted to print well at a large (A1) size. Take the file to your local print and copy shop and ask them to print and laminate it so it can be displayed outdoors and indoors, in your stables and arena.

Make sure you share the poster with friends and colleagues and encourage other horse training stables to display their copy.

We would love to see where the poster is being displayed around the world, so please send me some photos showing how it looks in your horse facility, email them to newsletter@equitationscience.com

Find the ISES Page or follow this link:

http://www.facebook.com/EquitationScience

Stay tuned to news and updates from ISES on facebook...

Find the ISES Page or follow this link:
The noseband, a common feature of contemporary bridle designs used on performance horses, is sometimes designed to be acutely tightened to restrict virtually all normal jaw and tongue movements. This is a fairly recent innovation in noseband design. Forty years ago, nosebands were largely aesthetic rather than functional.

In its position statement, (http://www.equitationscience.com/restrictive-nosebands) ISES recommends that all equestrian sports should require that the tightness of any noseband is checked by a steward at the nasal midline.

For fairness and objectivity, ISES designed a simple taper gauge to be the size of one and two average adult fingers. The smooth plastic gauge can be inserted under the noseband.

The gauge should be placed without force and is clearly marked to show the desired stop which, in alignment with established industry guidance, should be the dimensions of two average adult fingers. Riders should be advised and encouraged to use the same gauge in practice.

The final design incorporates a “one finger” measurement and three additional notches to assess bit thickness according to the FEI rules of dressage.

The independent company Equidae Welfare and A&F Ventures Pty Ltd has taken over production and marketing of the ISES taper gauge, which can now be ordered online: www.equidaewelfare.com

For larger orders or retail enquiries contact: sales@equidaewelfare.com

Please note: The company selling ISES taper gauges is entirely independent of ISES. ISES does not profit from sales of ISES taper gauges.

Using the ISES taper gauge:

Above left: Noseband adjusted according to the ‘two-finger’ rule.

Above centre: Noseband adjusted to allow ‘one finger’ to be inserted.

Above right: Measuring bit diameter. The design incorporates three additional notches (10mm, 12mm and 14mm across) on the side to allow stewards, if they wish, to assess bit thickness according to the rules of dressage.
Under the theme of “Embracing Science to Enhance Equine Welfare and Horse-Human Interactions”, the ISES 9th annual conference will be hosted jointly by the University of Delaware and the University of Pennsylvania, USA on the 18th – 20th July, 2013.

The conference will be opened by Dr Camie Heleski who is a leading expert in Equitation Science at Michigan State University and has been involved with ISES from its conception through to ISES officially becoming a society in 2007. Dr Heleski has conducted work in learning theory with both horses and donkeys and is passionate about her work specializing in working equids in developing parts of the world.

“Our overarching theme for the 2013 ISES conference is ‘Embracing science to enhance horse-human interactions’. I am especially excited about one of our sub-themes ‘getting the message out about equitation science and learning theory’ – in other words, how can we capitalize on outreach and education methods to inform people about the value and importance of equitation science. Whilst conducting the research is extremely important, we must also make sure we get information to the stake holders at the front line of the horse industry.” – Dr Camie Heleski.

Conference co-chair organiser Dr Carissa Wickens states “It has been a tremendous honor to organise the 9th International Society for Equitation Science Conference in collaboration with Dr Camie Heleski, Dr Sue McDonnell, Assistant Prof Angelo Telatin, Dr Sarah Ralston (Rutgers, The State University of New Jersey), and Dr Amy McLean (North Carolina State University). I am extremely excited to be hosting the conference at the University of Delaware, and I am looking forward to

The 2013 Conference will be hosted by the University of Delaware and the University of Pennsylvania. Although located in different states, the two are only about 20 miles apart.

The Practical Day includes a tour of the New Bolton semi-feral pony herd and a discussion on the making of equid ethogram.

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networking with colleagues and students to discuss opportunities and strategies for incorporating equitation science into the classroom and into our equine extension and outreach efforts.” Dr Carissa Wickens.

Keynote speakers for the 9th International Society for Equitation Science Conference include:

Dr Hilary Clayton - Research on the Rider-Saddle-Horse Interface

Dr Jan Ladewig - What about the other 23 hours?: How does what we do during the other hours when we are not training impact behavior and welfare?

Dr Andrew McLean & Prof Paul McGreevy - Arousal, affective state and attachment

World leader in Equitation Science and keynote speaker, Dr Hilary Clayton states “I enjoy the ISES Conferences because they bring together a group of people from all over the world who are interested in the science that underlies the relationship between horse and rider in sport. Since the horse is unable to speak for itself, it is important for scientists to address these issues so that improvements in equestrian performance can be achieved without risk of compromising the horse’s health or welfare.

One of the goals of ISES is to bridge the gap between the latest scientific research in the equine academic world and equine industry practice. Practical demonstrations will take place at the 2013 ISES Conference Practical Day which will be held at the New Bolton Center, University of Pennsylvania.

The popular conference dinner will take place at the Fair Hill Training Centre. Be sure to book early for the banquet as seating is strictly limited!

Photos courtesy Fair Hill Training Centre

Photos left & below courtesy Carissa Wickens

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Themes for the Practical Day include:

- Is it Physical? Psychological? Or both?
- Development of the Equid Ethogram
- Applied Learning Theory
- Fair Training Practices in Action

Dr Sue McDonnell from the University of Pennsylvania, New Bolton Center will deliver a presentation on the developing of the equid ethogram and host a tour of the semi-feral pony herd (see page 19 for more on Dr McDonnell’s work); Angelo Telatin from Delaware Valley College will demonstrate how riding and handling horses can be enhanced when integrated with the knowledge of learning theory, by jumping a horse bridleless and showing how tasks such as clipping and giving a horse injections can be simplified by giving the horse a choice to perform a desired behavior.

The ISES Conference is the perfect way to:

- Connect and network with ISES members during breaks, poster discussions and dinners in order to exchange ideas and foster research cooperation;
- Seek guidance with the application of the principles and practices of equitation science for individuals own equestrian practices;
- Attend clinics conducted by international riders and trainers demonstrating practical equitation that is in line with scientific principles of training and learning;
- Discuss strategies to enhance the cooperation between scientists, animal welfare activists and riders, trainers, coaches, industry and government representatives and international leaders in sport across the sector.
Plan extra time into your visit to enjoy sightseeing along the East Coast of the USA. It is a beautiful and historical region of the country with a strong appreciation for the horse industry.

Abstract submissions have now closed with abstract sub themes to be determined after review of abstracts is completed.

Save money and take full advantage of the Early Bird registration at a reduced price by booking online before May 15, 2013.

Attendance for the practical day will be limited by space, so early registration is encouraged and priority will be given to delegates also attending the 2-day scientific program.

For registration and further information about the conference and associated events, please visit:

http://www.equitationscience.com/upcoming

Contact: Dr Camie Heleski & Dr Carissa Wickens
Email: ISESconference2013@equitationscience.com

Useful links
Conference registration: http://www.equitationscience.com/upcoming
University of Delaware - http://www.udel.edu/
University of Pennsylvania, New Bolton Center - http://www.vet.upenn.edu/
Fair Hill Training Center (conference dinner venue) - http://www.fairhilltrainingcenter.com/
Downtown Newark, DE (main street restaurants and shops, within walking distance from conference venue) - http://enjoydowntownnewark.com/home

Points of Interest in the Mid-Atlantic Region (Many locations/attractions are within driving distance, but public transit is also an option)
Delaware Beaches (approximately a 1 ½ to 2 hour drive from Newark, DE) - http://www.visitdelaware.com/things-to-do/beaches/
Lancaster County, Pennsylvania (approximately a 45-60 minute drive from Newark, DE) - http://www.padutchcountry.com/index.asp
Philadelphia (approximately a 45 to 60 minute drive from Newark, DE) - http://www.visitphilly.com/
Washington D.C. (approximately a 2 ½ hour drive from Newark, DE) - http://washington.org/
New York City (approximately a 3 hour drive from Newark, DE) - http://www.nycgo.com/
Training Course for Stakeholders involved with Enforcement of the Control of Horses Act (1996)

County Cork Horse Pound, Republic of Ireland

By Gemma Pearson

Organized and funded by the Horse Trust the day was designed to improve the welfare of horses seized by the pound by training the people involved with their care. This involved 16 vets (working for the local authority, Department of Agriculture, food and Marine or in private practice) and 8 employees from the pound. Stray horses are a major problem in Ireland particularly in urban areas and the act allows stray horses to be seized. As well as seizing stray horses authorised people or the Garda Síochanna (police) can require a person to seek veterinary attention for a horse if they deem it necessary, or seize a horse if they have reasonable cause to believe it will not receive veterinary treatment. Stray horses cause a risk to traffic and people and are often not being looked after. The pound seizes around 80 stray horses each month. The dedication of staff to the care of these animals and drive to reduce the problem was touching.

The day started with talks on current legislation and the problems faced in the local area. Many of these horses have had little or no handling so the purpose of my visit was to increase the knowledge of learning theory and horse handling skills of the people dealing with the horses.

I started with a presentation involving some of the concepts of learning theory and several short videos of loading difficult horses into trailers and examination stocks using negative reinforcement, overshadowing needle shy horses, and using clicker training to help head shy horses accept examination of their mouth, eyes or being wormed. We then moved on to a practical demonstration where I showed how to examine a nervous horse and scan it for a microchip using negative reinforcement and overshadowing.

A common problem at the pound is loading horses into examination stocks. For this I was given a bay Thoroughbred cross mare who was known as being nervous. Having flown over with only hand luggage I had none of my own equipment with me, so used her normal wide webbing headcollar, I had asked for a schooling whip but the only thing available

“Stray horses are a major problem in Ireland particularly in urban areas, and the act allows stray horses to be seized. Many of these horses have had little or no handling so the purpose of my visit was to increase the knowledge of learning theory and horse handling skills of the veterinarians and employees dealing with the horses.”
was a broom pole so we worked off headcollar pressure alone. I explained again the importance of timing of the release of negative reinforcement. She was very nervous about approaching the stocks at first and trialled rearing and running backwards but once she learnt to control the pressure by stepping forwards, she soon got confident and was quietly entering the stocks.

After 3 repetitions walking through one of the pound staff was able to lead her through easily. The examination stocks at the pound are not very inviting as the race to enter them goes into a corner which the horses must bend round to then enter a cattle crush with a low bar overhead. These were of course initially put in for cattle handling and new equine stocks have now been instated in another part of the premises. The vets and pound staff were very impressed that the methods involved no fighting with horses and how quickly and calmly she loaded.

After further talks on ragwort problems and assessing fitness to travel and travel vehicles we broke for lunch.

After lunch I was asked to try loading some horses into the horsebox and trailer they have available, they say never to work with children or animals and all of the horses walked straight in with the pound staff. Interestingly one of the horses was then unable to back out the trailer again. We stopped and I gave some advice to the handler on using pressure to ask for a single step backwards then pausing for a moment before asking again. This gave the horse time to gain confidence at removing the pressure by taking a single step back and was a lot easier for the handler than trying to push him out with brute strength.

The rest of the afternoon consisted of excellent talks on Body Condition Scoring, the needs of specific groups such as Donkeys, pregnant mares, foals and geriatric horses, common conditions that can compromise welfare and health care of impounded horses. We also had further practical sessions on body condition scoring and welfare assessment of equines. Several of the talks were given by Peter Green who has made a huge contribution to equine welfare over many decades.

Overall the day was very successful and well received by the participants. I hope to have directly improved the handling of these horses by the pound staff and the vets they work with by increasing awareness of equine learning theory. Encouragingly, the pound staff stayed behind that night to discuss and practice some of the techniques I had shown.

Bridging the gap with coaches in Australia

By Sophie McLean

On Wednesday February 27th 2013, Andrew McLean was invited to present to the (Australian) National Coaching Accreditation Scheme (NCAS), Level 3 Coaches. Level 3 is the highest coaching level that can be achieved in this country. Eight candidates attended the day which was held in Macclesfield, Victoria.

Beginning the day with a lecture in the application of learning theory to horse training, the group was instantly intrigued and eager to listen. Some may have been aware of learning theory already, others never before.

The lecture was followed by a demonstration in-hand where Andrew showed the group how to train groundwork using learning theory. This training demonstrated how we can reduce confusion in relevance to equestrian sport.

Finally, Andrew presented to the group a demonstration under-saddle. He showed the basic responses learned by operant conditioning that provide the basis for all dressage movements and all complex manoeuvres in equestrian sports, and also where classical conditioning fits in with these basic responses.

This event was tremendously important for Equitation Science. If the NCAS adopt the principles of learning theory into their training material the benefits for horses and trainers nationally will be enormous. As many of the Level 3 coaches are so influential to the highest form of competition nationally (judges, coaches and riders), we should start to see a shift in the direction in which the equestrian sport is headed. As equitation science is recognised and supported in the top levels, this will soon filter down through to levels 2 and 1, thereby being standard practice for coaches, riders and judges associated with Equestrian Australia in future. We are just at the beginning, but the road ahead looks very bright!
My equitation science mission
By Jitka Bartošová

I love horses, ride horses, research horses, and I teach horse behaviour. That's why I've had no chance to miss equitation science and ISES. I include information about ISES in the horse behaviour subjects I teach within bachelors and masters courses at the Czech University of Life Science in Prague. The outcomes of equitation science help us understand more deeply the learning processes in horses as well as the principles of training, and off course provides evidence of how these processes work in daily routines regardless of the equestrian discipline or riding style.

Recently, I (finally) extended my equine research activities, covering mostly maternal and social behaviour, to welfare of ridden horses (within the EU FP7 project AWIN, www.animal-welfare-indicators.net/).

I have always tried to bridge the silly gap between science and the horse world. Many Czech horse people are interested in gaining up-to-date knowledge on horse behavioural needs and learning principles, but they suffer from a lack of access to relevant information. They feel that the traditional “push and pull” way of riding is not the right approach, but they often become lost in a big messy pool of various alternative methods and riding schools. Some of them adopt popular ideas of natural horsemanship or partnership, but the quality of this kind of training often substantially differs from the best practice. Nevertheless, even the best trainers (who obviously understand learning principles well) have not exclusively absorbed their knowledge from books or courses on learning theory or equitation science. For this reason they are not familiar with terms like negative reinforcement, and often do not see science as anything they need in their lives. Thus I am trying to transform scientific results into understandable and usable information, and explain that the learning principles are the same regardless of the riding style or training goal.

I hold lectures and courses on horse behaviour, welfare and learning principles for horse breeders, riders or people involved in equine assisted therapies.

During the past nine years I have written more than 70 articles for our most influential riding magazine Jezdectví (Equitation, www.jezdectvi.cz), being mostly supplemented by original cartoons by my extremely tolerant husband. This 60 year old traditional medium has given me the exceptional opportunity to address the scientific knowledge, including learning theory, to approximately 50,000 readers. Recently I focused on equitation science and ISES and wrote some words about Paul McGreevy and Andrew McLean. The readers were informed about the early ontogeny of a young science, its interdisciplinary origin and the importance for daily routine. The mission and aims of ISES were introduced together with the cooperation with world riding and training authorities emphasized (December 2012). A second part of this “initiation mission” focused on the Principles of Horse Training and their application and feasibility was demonstrated on Andrew McLean’s and his team work during a virtual excursion to the Australian Equine Behaviour Centre (January 2013). An article on restrictive nosebands is just about to be released (April 2013).

In my personal experience, there is a group of very conventional people who strongly resist listening to anything innovative especially from “a clever girl who has not trained hundreds of horses and sportsmen”. Nevertheless, I know that at least some of them read the articles very carefully if only to be informed about that additional portion of “stupid scientific nonsense”. Maybe one day they will find that “scientific horse whisperers” should be listened to.
Equitation Science Out and About

Fifth Chukker Polo and Country Club - Promoting Equitation Science to a wide audience within Polo circles in Africa.

By Mshelia Philip

Founded in 2001, the Fifth Chukker Polo & Country Club is a private and public partnership with over four hundred thoroughbred polo ponies stabled in a three thousand hectare resort Fifth Chukker Polo & Country Club.

Fifth Chukker is Nigeria’s best internationally known sporting venue, having hosted high profile polo competitions featuring top professional players from around the world.

The tournaments where ISES concepts where introduced are the Access Bank-UNICEF Charity Shield in May 2012, and the African Masters Patrons Cup in October 2012. Those in attendance included trainers, farriers, stable managers and horse keepers.

Polo involves speed, rapid changes in direction and aggressive physical contact which place a demand on the polo ponies. Sudden takeoffs that could predispose horses to peroneus tertius rupture, and sudden turns associated with various foot problems are some of the challenging issues in polo games. Though some polo rules have changed over time to address these issues mentioned, a concerted effort is needed to look into some welfare issues that are somewhat unique to polo ponies.

During the two tournaments, after every session of group discussion, a focus group was formed to find out the perception of the participants towards ISES concepts and to take questions.

Issues pertaining to the identification of basic signs of overtraining where discussed. The importance of checking nosebands and billet straps to improve the welfare of the polo ponies was stressed.

The veterinary team has generally improved on equine welfare by promoting pre-transportation checks, better way of transporting polo horses and the humane training of horses.

Prior to tournaments ponies are checked for body condition score, injuries and other welfare issues peculiar to polo horses.

The team carried out an on-the-spot assessment of ponies in stables and paddocks to ascertain their welfare. The short meets at intervals have improved welfare outcomes on Fifth Chukker.

An effort will be made by the veterinary team in the forthcoming international polo tournaments in May and October 2013 to look at rider intervention that might compromise welfare.

“The road ahead” for Fifth chukker is to serve as an avenue for providing a formal and informal means of educating horse keepers and trainers alike on evidence-based training and horse management systems that will impact positively on the horses in Africa.
Bridging the gap with practitioners and sport professionals in Sweden

By Anders Eriksson

I live in Sweden, and work as a professional training horses and teaching. I am also a member in the Swedish Equestrian Federation, Trainers Council and Section for Sports an Education. I have now been to three ISES Conferences, the first in 2010, and have been a practitioner member since 2011.

Over the years I have been involved in discussions about training methods and horse welfare, and together with colleges and vets, I have tried to spread knowledge about horses in different ways. This is not so easy especially when wrong training principles have become the “right” methods.

When I started to ride in the beginning of 1970 in a riding school here in Sweden there was no one talking about horse behaviour or handling and schooling horses from the ground. In the late eighties after I had learned and studied at the Farrier School and worked in the Royal Mews in Stockholm as a coachman, I became interested in the work in long reins and double longeing. After a while and some requests I started to teach interested horse owners and riders. Over the years it became obvious that the work developed and assisted the communication with the horses, and made it possible to school and train horses without carrying the rider and the saddle.

In the beginning of 1990 when I was competing in the sport of carriage driving I met dentist Torbjörn Lundström who was a former rider and interested in dental care of animals and especially horses. The experiences and knowledge from that meeting really opened up a new world that also gave me and many others a better understanding to some horses behaviour. These experiences were the reason why I took the initiative to produce film and printed material to widen knowledge of horse management, equipment and training in the beginning of 2000 (which is now being translated).

Codes of Conduct and other good statements are written down but unfortunately, the meaning of the words and what the words stand for is sometime forgotten.

Before I received information about the ISES Conference that was to be held in Sweden in 2010 I didn’t know that the organization existed, but it felt really good once I understood the aims, and that there was an organisation working from the horse’s side to develop welfare for the horse in sport and industry. Since then I have participated in the conferences in Eindhoven, The Netherlands and Edinburgh, Scotland. The idea of hosting these seminars in different countries is very good, as it fosters worldwide contacts.

From a practitioners point of view I think it is very important that the ISES conferences in the future have more practical demonstrations to attract people in the sport. If ISES could set up a Honorary Award that are given to people in the sport, trainers, riders etc that gets publicity it could promote the aim with ISES.

In the environment I am working in, I sometimes mention ISES and recently I have forwarded emails to inform about the radio interviews with Chris Stafford that showcased equitation science.

Last week I realized that it was possible to download and print out the pdf file poster of the ISES Training Principles from the website, to be displayed in stables and arenas, which is one way to spread the message far and wide.

Today I sent an email to people who have different roles in the federation to encourage that we really have to do something about these questions that we have in the sport about the training principles.

It was very helpful that it was possible to add pdf-files in these emails from ISES about The Training Principles and the position statement about nosebands etc. I have also added these statements to my own website www.anders-eriksson.se.

When I was in the USA teaching I mentioned that the next conference will be held there.

I think it is just a matter of time before we can see the effort of the work that is going on, but it is also important to explain the science in a practical way.
Top Sport meets Learning Theory: Eventing icon Lucinda Green teams up with Andrew McLean for a Super Clinic in Perth, Australia
By Portland Jones

One of the challenges facing Equitation Science is how to disseminate the information and concerns of its scientists to the wider equestrian community. After 6000 years of anthropomorphic beliefs and practices, horse training is well overdue for a dose of objectivity, however scientists sharing their findings with other scientists are merely preaching to the choir if they cannot find a way to make the advances in science both relevant and accessible to mainstream horse owners.

With this caveat in mind, well known equitation scientist Dr Andrew McLean recently joined forces with equestrian icon Lucinda Green MBE for the Living Legends Super Clinic in Perth, Western Australia. Lucinda has well and truly earned the title of living legend: she won Badminton Horse Trials six times on six different horses; she has been world champion and an Olympic silver medalist. Andrew’s equestrian achievements are also impressive: winner of the Eureka Science Prize, best selling author and much sought after clinician; he also represented his country in eventing and is well known for developing evidence based training schema.

The Super Clinic was an interesting opportunity for budding equitation scientists and horse trainers because it juxtaposed two potentially very different training systems; one honed by competitive practice and experience and the other, no less practical, but firmly embedded within the framework of learning theory. Over the two days Andrew and Lucinda worked separately with groups of riders; Lucinda focused on preparing eventing horses for cross country while Andrew helped riders of all disciplines consolidate their horse’s basic training through the application of learning theory. The Super Clinic culminated in an evening master class with both trainers in the arena working together. During this unrehearsed event the trainers shared their knowledge and experience, each from their own quite different perspective. They took turns to explain their techniques and shared exercises and tips while working with a range of horse and rider combinations from Introductory (65cms) to 3* level.

One of the most interesting aspects of the Super Clinic was the extent to which the two trainers were able to work together. Lucinda may phrase her ideas differently from Andrew but the underlying principles are very similar. Lucinda’s focus on rider safety and horse welfare is closely aligned to the concerns of most equitation science trainers, as is the way she de-emphasises the role of cervical flexion in jumping training and teaches riders to eliminate expressions of the flight response related to jumping. Lucinda may or may not be familiar with Andrew’s work on the eight basic principles of training but nevertheless those principles were clearly evident in her own practice. Her systematic shaping was textbook perfect and her ability to articulate and demonstrate the truly necessary aspects of any given exercise emphasised the importance of clear basic responses trained and maintained via negative reinforcement.
The synergy between Lucinda and Andrew was easy to see and although it would have led to interesting discussions if they had disagreed with each other on some of the foundational principles of training, the emphasis of their work was remarkably uniform. The clinic highlighted how the principles of learning theory are often to be found in ethical, effective training methodology even if it has not knowingly been informed by science. It is the points of departure between a training scheme and the science of learning that signpost ineffective or extraneous methodology. Beyond these points lie unethical techniques, anthropomorphic reasoning and unsustainable practices. One of the best ways for equitation science to promote improvements in the welfare of riding horses is to identify these, explain the pitfalls associated with their use and offer viable alternatives.

"Over the two days Andrew and Lucinda worked separately with groups of riders, and the Super Clinic culminated in an evening master class with both trainers in the arena working together. During this unhearsed event the trainers shared their knowledge and experience, each from their own quite different perspective."

The Super Clinic format was an interesting concept and one which potentially allows for the integration of science and existing practice. Lucinda and Andrew were not just interesting and informative, they managed to be humble, amusing and to keep their audience entertained for hours. The challenge facing the clinic organisers in the future is to find coaches who can approach the benchmarks that they have set.
The use of quantitative and qualitative assessment in equitation science: a preliminary investigation of rein tension at walk and trot in the ridden horse

By Kate Sears, Hayley Randle and Alison Abbey
Duchy College, Stoke Climsland, Callington, Cornwall, PL17 8PB

Background
In order to provide evidenced-based data upon which practice and welfare decisions can be based, the majority of measurements taken within the field of Equitation science are quantitative. However in equitation practice tends to rely on the use a qualitative language, with trainers/coaches using terms such as “more leg”, “less rein” and so on. Arguably there remains a notable gap in research that links qualitative and quantitative findings directly. Qualitative researchers often make statements such as “it is only when we have the courage to stop looking and trust in the reflective and reflexive processes that we will be able to perceive the areas we need to tackle” (Bolton, 2010). This statement could clearly refer to the equitation term “feel” that so many riders wish to discover and/or develop.

One of the key aspects of riding, and indeed driving and other equitation pursuits, is rein contact. Many studies have reported numeric values for rein tension and/or the pressure exerted on the horse’s mouth via the reins, but these have rarely been combined with qualitative assessment. The researchers aimed to design a study that examined both the quantitative and qualitative aspects of rein tension in order to further existing understanding of how first, reins are used and second, to deepen understanding of the impact rein use can have on horse welfare.

Method
Twelve riding school horses, 6 mares and 6 geldings, aged 5-24 years old, of mixed breeds were used in the study. All horses wore their normal tack apart from the reins. A standard set of plaited leather reins were used on all horses in order to prevent the possible influence of rein type as reported in previous research (Randle et al. 2010). All horses were ridden in their normal single jointed loose ring snaffle bits. The reins were fitted with a ReinCheck™ tensiometer. Quantitative data were recorded continuously during the trials. Qualitative data were gained through the rider completing a questionnaire on her perception of rein tension throughout the trial.

All horses were ridden through a predetermined route in a 20m x 40m riding arena. There were three replicates in walk and three in trot. The horses were asked to ride up the centre line of the arena from A to C with cones marking a line from D to G. Each new transition was initiated at either A or C and was finished at the other. The route was based on four components ~ a free walk on a long rein (FWLR), an active walk with a contact (W), a working trot with a contact (T) and finally a second free walk on a long rein (FWLR2). As the horses rode through the route, the stopwatch was started at the first midline letter (either D or G) and stopped at the other in order to allow accurate derivation of the rein tension data once downloaded using Signal Scribe™ software.
The following data were derived:

Left and right rein tensions – for all trials, components and gaits.

The rein tensions observed for each component.

The average actual (quantitative) rein tension and perceived (qualitative) rein tension for each horse, component and gait.

Results

Analysis of the quantitative data indicated that there was no significant difference in the rider’s left and right hands across all trials and horses. The component, that is gait, had a significant influence on the actual rein tensions observed, with greater rein tension being applied during the trot and the walk, than either of the free walks.

Interestingly in this study the perceived (i.e. qualitative) rein tension was only related to the actual recorded (i.e. quantitative) rein tension in the walk. No relationship was seen for trot or either of the free walks on a long rein.

Concluding thoughts

Although there is plenty of room for improvement to this pilot study, for example the use of more riders, videography and so on, it has nonetheless demonstrated the importance of consideration of the actual rein tension applied by the rider versus their perception of the rein tension that they are applying. The walk is often believed to be most important gait in training. How many times have we been told by instructors/trainers/coaches that we have to master a movement in walk before trying it in any other gait? Undeniably the understanding of rein tension, actual versus perceived, is fundamentally important to progression in our practice.

In summary it could be argued that the combined use of quantitative and qualitative data will assist in the generation a better overall picture of how we interface with our equids during equitation.

References


Figure 1. Interval plot of average rein tension comparison to movements.
Means that do not share a letter are significantly different.
THE RIDER IN THE SPOTLIGHT:


“It is true that riding is a science; any science is based on principles, and doctrines are absolutely essential because anything really good and beautiful cannot be based on accident.”

Earl of Pembroke, 1778

The rise of equitation science in recent years has led to a much-needed increase in the number of scientific works investigating the countless facets of equine training, management and welfare. Much of this primary knowledge has been collated, edited and put into context in various high-quality books aimed at the academic disciplines of equitation and equine science – with the primary focus on the horse.

Yet there can be little doubt that the role of the rider in the horse-human dyad is equally important: after all, it remains the rider’s responsibility to find the most effective way of communicating with their equine partner in order to optimize performance and improve horse-rider safety.

But while there are an increasing number of empirical studies that do indeed focus on the human element of the horse-rider dyad, there are, at present, no academic books on the market collating and presenting such current knowledge.

The book “The Science of Equestrian Sport: Theory, Practice and Performance of the Equestrian Rider”, written by Dr. Inga Wolfram and with a foreword by Dr. Andrew McLean aims to fill that gap.

Drawing on the latest scientific research, and covering a wide range of equestrian discipline from horseracing to eventing, the book systematically explores core subjects such as:

- physiology of the rider
- sport psychology in equestrian sport
- preventing injury
- biomechanics and kinematics
- coaching equestrian sport
- horse-rider relationships

The book is due to be released by Routledge in August 2013, in time for the new academic year.

For more details, Table of Content, a short review and author’s bio, please click on the following link: http://www.taylorandfrancis.com/books/details/9780415637251/

Stay in touch with the Jeanne Marchig International Centre for Animal Welfare Education

By Jane Barr

The Jeanne Marchig International Centre for Animal Welfare Education (JMICAWE) is a hub of expertise on animal welfare education, collaborating with UK and international universities, governments, charities and NGO partners to advance the understanding of animal welfare issues.

Recent projects have included investing in the Clinical Skills Study Area at the Dick Vet School, providing students with animal alternatives on which to practice; including an exciting new equine colic simulator. We have also developed a new online Masters programme in International Animal Welfare, Ethics and Law which joins our very successful on-campus Masters in Applied Animal Behaviour and Animal Welfare. We are fortunate that both these programmes are supported by The Scottish Rural College (SRuC)– allowing students to benefit from being taught by many of the best animal welfare experts in the country.

Further afield we have joined our partners to provide workshops and training in Bosnia, India, Hong Kong and China.

For further information please visit our website www.ed.ac.uk/vet/jmicawe or follow us on Twitter @JMICAWE. Contact us if you wish to be added to our mailing list to receive our regular email newsletters.
Sue McDonnell

What do you do? Research, teaching, and clinical service at UPenn Vet School at New Bolton Center.

Where were you born and where do you live and work now? I was born in Northeastern Pennsylvania in a dairy farming community, 20 miles down the Susquehanna River from the childhood home of BF Skinner.

What are you passionate about? Helping veterinarians, vet techs, and horse owners understand horse behavior, particularly how to recognize physical pain, and the basics of behavior modification.

What do you personally consider your best achievement in research? Helping the horse breeding industry better understand the basic behavioral basis of sexual dysfunction.

How do you get your ideas for your work? I go to work every day, and see everywhere work to be done. I go to horse shows or visit barns on the week-end, and see more work to be done.

What do you hope to achieve through your research? Finish all the unfinished studies we’ve started.

Is there anything in particular that you would like to measure but can’t? I would love to be better able to quantify pain and stress in horses. Since horses don’t show signs of pain or stress that are conspicuous to the average owner, trainer, or veterinarian, it would be enormously helpful to be able to measure it reliably.

In your view what are some important areas in ES that need to be researched? Positive reinforcement training methods.

Do you ride, train and/or own horses? My family and I have owned riding and driving horses since I was a child. I currently drive and train kids how to drive ponies.

If you could have any four people over for dinner who would they be and why? I presume you mean people interested in horse behavior, so BF Skinner, Angelo Teletin, Willie Knie a Swiss stallion circus trainer, and my 9 year-old grand daughter...

At UPenn Vet School we use different imaging services to evaluate physical causes of undesirable behavior or poor performance.
I have always wondered how Skinner would have involved himself in Applied Animal Behavior if he were alive now. How would he advise on helping humans change their behavior to better help horses understand what we want them to do. Thanks to Angelo Teletin (a colleague from Delaware Valley College near here) I just within the past month learned that BF Skinner late in life visited a horse training facility near his home and made some fascinating comments about being chastised for using positive reinforcement with horses.

Who do you admire in your field of work? I admire those who spent most of their career blazing the trail for introducing science-based behavior to the veterinary community, the first generation, of course, Katherine Houpt at Cornell, Andrew Luescher at Guelph and Purdue, Ben Hart at UC Davis, Vicki Voith at Western University in California, and others, along with a second generation including Paul McGreevy in Sydney, Daniel Mills in England, Sharon Crowell-Davis at Georgia, and so many more like them.

Who do you admire outside your field of work? My father, who with a high school education, understood animal behavior at a very high level. Growing up, he stressed with us kids what today applied ethologists call “cow comfort”, particularly comfort and trust in caretakers. I saw him kindly dismiss any part-time workers who as much as yelled at one of our cows. I remember seeing tears in his eyes when he would witness people on other farms or at auctions, interact abusively with an animal.

What’s the most embarrassing thing that’s happened to you? While on stage at a national meeting giving one of my first international talks, the elastic on my pantyhose failed and the waist ended up at my knees when it was time to leave the stage down about 6 steps in full view of the audience.
What has been your biggest lesson? Throughout my career, at least, probably most of what horse people learn about behavior comes from commercial sales pitches and gimmicks, which are not necessarily science based or correct.

Your biggest challenge? My biggest challenge is remaining professional when trying to help people and their horses who are struggling with various "natural horsemanship" techniques. For me, this is particularly the case when trying to reconcile the popular claims about what horses do under natural conditions with science based information.

What’s one thing we should know about you? I’m at that age where there’s not enough time left to pussy foot around. I can’t help but be forthright from the git-go.

What advice would you or do you give to anyone wishing to get into research with horses? Get a good solid basic education in ethology & animal behavior, learning, research design and especially statistics and scientific writing at the master’s level. Then do PhD level research with someone you admire who is working in an area that interests you, and is publishing in peer reviewed journals.

What’s “on the cards” for the year ahead? Our behaviour lab and our reproduction and behaviour group do a combination of mare and stallion applied reproduction research as well as more straight behavior & physiology research.

Our busiest behavior research time is summer. In recent years our behaviour topics have revolved around our research training program for undergraduates and veterinary school students that is supported by The Dorothy Russell Havemeyer Foundation. So I will encourage those students to come up with “own ideas” once they arrive in May and see what the possibilities are for projects within the lab and semi-feral herd.

Most years we have at least one new project doing basic behaviour observations within our semi-feral herd. We have long time studies underway on behavioural endocrinology within the semi-feral herd, as well as developing and testing methods of least stress early handling. This year we are revising our ethogram book and companion video.

Most of May and June will be spent in the field with the herd assisting some professional wildlife photographers and videographers to upgrade the material.

I also hope some will be interested in cognition and learning topics, especially applied topics like trailer loading, veterinary procedure aversion rehabilitation, etc. We do that all the time in the clinic, but the area desperately needs published papers to spread the word. We have so many ideas and resources for applied questions that it becomes overwhelming for me at times.

Dr. Sue McDonnell will play a very large role in the upcoming Equitation Science Conference Practical Day with a discussion on the making of the equid ethogram and a tour of the semi-feral pony herd; as well as working with her colleagues at New Bolton Center to present “Is it physical, psychological or both?” - assessing behavioral problems.

About the New Bolton Center’s Semi-Feral Herd:
Since 1994, a herd of Shetland-sized ponies have been maintained at New Bolton Center. The foundation herd consisted of adult domestic pony mares and stallions acquired from local farms and auction and simply turned out together in a system of connected pastures with lush vegetation, natural shade and shelter, and ample natural water. These ponies live continuously and breed at pasture under relatively natural social and environmental conditions. Our research objectives include the detailed longitudinal study of equid physiology, behavior, and well-being under natural and domestic environmental conditions. This herd has also been a valuable educational resource for equine researchers, veterinarians, veterinary students, graduate and undergraduate students worldwide for observation of normal social organization and behavior.

Perhaps the most striking overall observation is that with modest preventive health care, minimal supplementary feeding in deep winter, and almost no other veterinary care or human intervention, these ponies thrive nutritionally and reproduce prolifically. Mares are continually fertile, have very little reproductive wastage or difficulty, with no need for veterinary intervention. Hoof health remains excellent in most cases with minimal need for hoof trimming or other care. Lameness and colic are almost non-existent. Laminitis has not occurred in any case in the 11 years of the project. We are interested in understanding the factors contributing to their extraordinary good health and fertility compared to similar stock kept under domestic conditions.
Martine Sudane

Where were you born? I was born and bred in Antwerp, Belgium. At the age of 20, I moved to South Africa and then at 30 to Canada; no more moves planned.

What are you passionate about? I am known to be passionate about Life in all its aspects! But for the purpose of this interview I would say my passions are:

The human-animal bond: I like to help people understand and respect animals more through increased knowledge of species specific behavior and body language. To this effect, I really see the value of projects like Roots and Shoots by Jane Goodall: educating children is so key when one tries to change deep rooted habits and convictions. Children are always open to new approaches and I have found it very useful when presenting to pony clubs to have children role play horse and handler: it gives them a firsthand experience what it feels like for example to be pulled by the head, to be yelled at when not understanding an instruction or being confused by contradictory instructions (i.e. laymen terms for some of the eight principles)!

When handling horses – and I mean every form of interaction not only training - it is so important to pay attention to every response or cue they give, not just the one we are looking for; these can often be so subtle that they are overlooked because too much emphasis is placed on the desired outcome and not the actual learning process. There can also be reluctance on the human side to adapt one’s techniques to individual situations or animals. I really like the advice of one of my teachers: learn to listen to the whispers so the animal does not have to shout.

How did you get involved with Equitation Science? Through my current studies and some of the professors at the College.

What are you currently studying? I am finishing an MSc in Companion Animal Behavior Counselling through the American College of Applied Science based in Florida. I came to this degree from a more holistic background working with horses (equine massage and Tellington Touch) and am finding the combination of the two different approaches very complimentary and effective. It is very valuable to analyse a situation based upon what I experience currently with clients, I feel that a confirmation that specific postures or stress patterns can be seen with certain behaviors, will convince owners and trainers to seek medical or therapeutic advice before attempting to change behaviors.

and make changes based upon facts and not emotions, and I learned that through my scientific studies. But I still see that those horses who go the extra length and respond just that much better do so because their humans work from the heart as well – not to be confused with anthropomorphising.
What does the year ahead hold for you? This year should be my wrap up year: my thesis got delayed because of personal life (a second child and complete home rebuilding) and several changes in topic and advisors... But I am finally making progress!

Where would I like to be in 5 years time? I would like to be working again with my clients and their horses while making progress towards a PhD.

What has been the high point of your time as a student? Developing a liking for research and academics!

What do you hope to achieve through your research? My Master’s thesis is a very initial look at the potential link between posture/physical patterns and behavior in horses. In our daily interactions with horses and companion animals, many of my Tellington Touch and other bodywork practising colleagues, report seeing this link. My hope is to find some support for these anecdotal case studies and open the door for more experimental research on this topic.

What are the practical applications and/or implications of your work? Based upon what I experience currently with clients, I feel that a confirmation that specific postures or stress patterns can be seen with certain behaviors, will convince owners and trainers to seek medical or therapeutic advice before attempting to change behaviors. Humans working with horses often get so focussed on the behavior that is bothering them and do not notice or realise the very real but subtle signals that there are physical reasons behind it like a subluxated vertebrae or a muscle in spasm.

Do you ride, train and/or own horses? I do not own horses myself because I spent my free time working on other people’s animals. Living in the city also means I need to board them at quite a distance from home. I currently ride with leased horses.

What do you do with your horses? I have been on and off horses since I was 7 but remained a recreational rider, enjoying simply trail riding, a little jumping and lessons in classical dressage riding: the competitive sport world does not attract me. I just really like spending time with horses on the ground and am intrigued by the agility training that has recently become popular.

Have Equitation Science research findings or research outcomes influenced your own riding/training/management? When I read the impressive academic profiles of ISES members I realise that I work more “on the ground” so to speak. I deal mainly with the local backyard horses or small recreational barns where the concerns and issues are pretty basic. Nothing fancy and no ribbons involved but I am content if at the end of the day I manage to help a horse with his human and make the relationship easier and more harmonious for both. Using plain and straight forward scientific principles makes it easier to offer new approaches, because it is not about what I believe works – it takes out the emotions.

Most of my clients get their advice from local trainers who are not familiar with learning theory and their approach is mostly based upon old, persistent incorrect ideas that are passed on through generations or even worse through media.

Who do you admire in your field of work? Linda Tellington Jones, Frederic Pignon, Philipe Karl, Dr Paul McGreevy..the list is kinda long!

Who do you admire outside your field of work? Dalai Lama, Jane Goodall,

If you could have any four people over for dinner who would they be and why? Any of the above would be great – I have had dinner with Linda and with Philipe Karl..President Obama would be an interesting guest too.

What is the most embarrassing thing that’s happened to you? Ok, that list is too long to mention...let’s just say I spent a good part of my young life learning by doing, not listening.

What has been your biggest challenge in life? Without a doubt: becoming mom to two spirited and intelligent children.

What is one thing we should know about you? I have strong opinions and passions but I am never afraid to change and embrace new ideas.

What advice would you give to anyone wishing to enter into Equitation Science research? Don’t get lost in the academics and remember that horses are intelligent and sentient being in their own way. Different does not mean inferior.

Where can we find out more about your work? Right now I am “flying a little under the radar” – I will only be back to full time work in two years when my youngest one is in school.
10mins with an ISES colleague, practitioner member:

Ylva Larsson

What do you do? I worked as a journalist for some 20 odd years, now I only do that on a small freelance basis. Five years ago, I underwent an education as an equine sports massage therapist, and am presently adding equine cranio-sacral therapy. Right now, I am working on my Masters in science education, which is about learning the feeling for riding. My BA was on teaching the feeling for riding, on which I had a short presentation at the ISES conference in Edinburgh. I also do a uni distance course on basic medicine, for the cranio-sacral education.

Where were you born? I was born in the old and pretty town of Kalmar, Sweden but moved to Gothenburg when I was two. Since I was 20 I have lived in the small town of Värnamo in the wood and lakeland interior of southern Sweden.

How and when did you start riding? When I was nine. As most riding kids in that time, at a riding school. The Swedish government decided in 1948 that riding was beneficial to your health and introduced an organization supporting riding schools. I was from the generation that benefited from the initiative a couple of decades later, when horse-riding somehow exploded over here.

Who was your first horse? Abel, a Swedish warmblood, whom I bought after about ten years at riding school. He was a forward, willing horse, who had been the first horse for a number of people, but stayed with me until he was put down at age 28.

What are you passionate about? In short: horse behaviour and welfare, increased knowledge among horse people and a united horse industry to make a better impact on horse-related issues in society.

What do you have planned for the year ahead? To finish my Masters, to complete my education on equine cranio sacral therapy (which I need to do before the end of the year, as I have EU funding and that programme period ends by then) and I hope to be able to join the ISES conference in the US this summer.

Where would you like to be in five years time? I sincerely hope somewhere I cannot even imagine right now. I never plan my life, rather like to go by the scent of something that seems interesting and fun.
What achievement are you most proud of? With horses professionally, it’s probably the feedback from horse owners on improvements in their horses after massage. For specific moments with horses, it should be solving tricky situations from horseback or the ground. I’ve competed in show jumping, dressage and a little bit of eventing, but only at a low level, still doing dressage and occasionally senior’s fun show jumping.

What is your most memorable moment or achievement outside horses? Probably untangling and publicizing a bit of a scandal in town council misuse of taxpayer’s money.

Which horse that you have ridden would you consider to be the best? I rode Swedish warmblood stallion Utrillo for a walk at the Swedish national stud of Flyinge at a course once. As he was such a breeding matador, he was undoubtedly the best! I think I also happened to ride one or two stallions there, who later entered the Olympic games, so the same would go for them (sounds very posh, but they were used as school horses or the pupils were used as jockeys to break them into saddle). But traditionally speaking, I think my three-year-old, whom I’ve just started riding, will be the best, so far.

How and when did you learn about ISES and equitation science? I came across and used the proceedings from the Iceland meeting for some student work a few years back, and recognized the organization when the conference was held in Uppsala, Sweden, which was also my first ISES conference.

Has your involvement influenced your training? Definitely, yes. I was already thinking of using positive reinforcement from earlier on, but have not really landed with clicker training. Learning theory, however, is more along the lines I’ve taken, but not followed up consequently on my own before. Grasping the theory and the studies being done makes it all more interesting, and I’ve practiced learning instead of correcting or demanding on my 3-year-old since I bought him two years ago. Being a true sporthorse type, he’d be a wreck if I hadn’t! When you start riding a horse, you used to carry a whip as a more understandable extension of your leg, but I’ve only used it as an extension of my arm, from the ground. Having someone doing the ground stuff while I sit on, he’s quite quickly learned that pressure from legs means forward, for example.

Two things you’d like to change in the horse world: The ignorance and unwillingness to learn among many everyday riders about the horse’s functions. That, of course, leads on to better horse-keeping and welfare.

What would you do if you weren’t working with horses? Probably journalism or writing in some form, as that is what I do when I do not work with horses. That sometimes also involves writing about horses, too.

Who do you admire in the horse world? I suppose it would have to be Kyra Kyrklund. She makes it simple, and with a fair bit of humour. Then she also seems to always be on good terms with the horse. One should not forget Tom Dorrance in this respect; I’ve only read his book, but was very impressed by it. The same simplicity, and admiration for the horse.

Who do you admire outside the horse world? That would have to be Nelson Mandela.

What’s the best advice you’ve been given? I can’t say, really. I tend to pick up good advice all the time, try them, use them or abandon them.

Who has been your best support? Myself, I guess. Relying on support from others would probably leave you quite without power to handle most situations and also quite alone.

What’s the most embarrassing thing that ever happened to you? I usually mix names and faces, or not recognise people or remember their names, That is always embarrassing. On another occasion I lined up an international delegation of school people in a schoolyard and situated myself higher on the steps, to get a nice photo composition, when a strange wind blew my summer dress up over my head. My only thought was if I had well worn stable underwear or nice ones. But in hindsight, that was more amusing than embarrassing, like most instances you first find embarrassing.

What has been your biggest lesson? No idea. I get new lessons every day.

What’s one thing we should know about you? Oh, I’m quite a transparent person, on what I want to be transparent about!

What advice would you give to young riders, wanting to follow in your footsteps? Never stop being curious, there’s always more to learn. And it’s all there to grab!

Where can we find out more about your work? On www.ylvalarsson.se, but it’s all in Swedish, I’m afraid!
I hope you enjoyed this edition of the ISES Newsletter!

As an ISES member you are invited to contribute articles and share your Equitation Science stories in our semestral newsletter. We would like to hear about any matters that align with the ISES mission and aims (http://www.equitationscience.com/mission-and-aims), Equitation Science research projects, and opportunities you may have to represent ISES and/or promote Equitation Science and its application to a wider audience since this edition.

The deadline for submitting material for the next newsletter which is due in October 2013, is 15th September.

Contact me by email: newsletter@equitationscience.com anytime, to discuss possible contributions. I look forward to hearing from you and thank you in advance.

Regards,

Cristina Wilkins
ISES Social Media Officer
DOES YOUR TRAINING SYSTEM STAND THE TEST OF SCIENCE?

The following 8 principles were originally defined in the peer-reviewed scientific literature (McGreevy and McLean, 2007 – The roles of learning theory and ethology in equitation. Journal of Veterinary Behavior: Clinical Applications and Research, Volume 2, 108-118).

The application of these principles is not restricted to any single method of horse-training, and we do not expect that just one system will emerge. There are many possible systems of optimal horse-training that adhere to all of these principles.

FIRST PRINCIPLES IN HORSE-TRAINING

1. Understand and use learning theory appropriately

Learning theory explains positive and negative reinforcement and how they work in establishing habitual responses to light, clear signals. (Note that “positive” and “negative” when applied to reinforcement are not value judgements, as in “good” or “bad”, but arithmetical descriptions of whether the behaviour is reinforced by having something added or something taken away, e.g., pressure. For example, when the horse responds to a turn signal and the rein pressure is immediately released, negative reinforcement has been applied.)

2. To avoid confusion, train signals that are easy to discriminate

There are many responses required in horse-training systems but only a limited number of areas on the horse’s body to which unique signals can be delivered.

3. Train and shape responses one-at-a-time (again, to avoid confusion)

It is a prerequisite for effective learning that responses are trained one-at-a-time.

It is critical in the training context that the horse’s responses are correctly reinforced and that the animal is not subjected to continuous or relentless pressure. Prompt and correct reinforcement makes it more likely that the horse will respond in the same way in future. Learning theory explains how classical conditioning and habituation can be correctly used in horse-training.

From the horse’s viewpoint, overlapping signal sites can be very confusing, so it is essential that signals are applied consistently in areas that are as isolated and separate from one another as possible.

To do this, each response must be broken down into its smallest possible components and then put together in a process called “shaping”.

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4. Train only one response per signal

To avoid confusing the horse, it is essential that each signal elicits just one response. (However, there is no problem with a particular response being elicited by more than one signal.)

5. For a habit to form effectively, a learned response must be an exact copy of the ones before

For clarity, a complete sequence of responses must be offered by the horse within a consistent structure (e.g., transitions should be made within a defined number of footfalls).

6. Train persistence of responses (self-carriage)

It is a fundamental characteristic of ethical training systems that, once each response is elicited, the animal should maintain the behaviour.

7. Avoid and dissociate flight responses (because they resist extinction and trigger fear problems)

When animals experience fear, all characteristics of the environment at the time (including any humans present) may become associated with the fear. It is well-known that fear responses do not fade as other responses do and that fearful animals tend not to trial new learned responses.

8. Benchmark relaxation (to ensure the absence of conflict)

Relaxation during training must be a top priority, so when conflict behaviours are observed in the horse, we must carefully examine and modify our training methods so that these behaviours are minimised and ultimately avoided.