

THE WILD HORSE MODEL

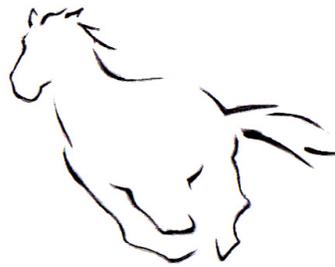


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The Wild Horse Model

Worth Fighting For

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Worth Fighting For

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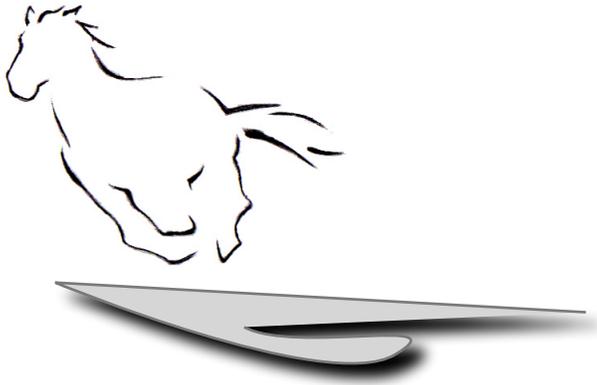
Dr. Bruce Nock, Liberated Horsemanship

The photograph is of Jean Nock's horses Marten and Scout.

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A B O U T
T H E
A U T H O R

Bruce has been a scientist for 39 years. He is a tenured faculty member of multiple departments at *Washington University School of Medicine* in St. Louis, Missouri. He is a subject of biographical record in both *Marquis' Who's Who in America* and *Who's Who in Medicine and Healthcare*.



Bruce has published numerous articles of original research in leading scientific journals on diverse topics including learning theory, wild horse behavior and stress physiology. Currently, his research is funded by the *United*

States National Institute of Health and focuses on transgenerational and epigenetic effects of morphine.

Bruce is qualified to critique a PhD thesis, which is the purpose of the current document. He has served as a *National Institute of Environmental Health Sciences*, Special Review Group Member. He was an *American Institute of Biological Sciences* panel member for *The Peer Reviewed Medical Research Program, US Army Medical Research and Materiel Command*. He was a consulting editor for the science journal *Hormones and Behavior* for eleven years. He has also been an *ad hoc* reviewer for the *National Science Foundation*, the *University of Missouri* and a number of leading scientific journals including *Archives of General Psychiatry*, *Brain Research*, *Journal of Pharmacology and Experimental Therapeutics*, *Life Sciences*, *Neuroendocrinology*, and *Neuropsychopharmacology*. Bruce has also served on thesis committees for PhD candidates.

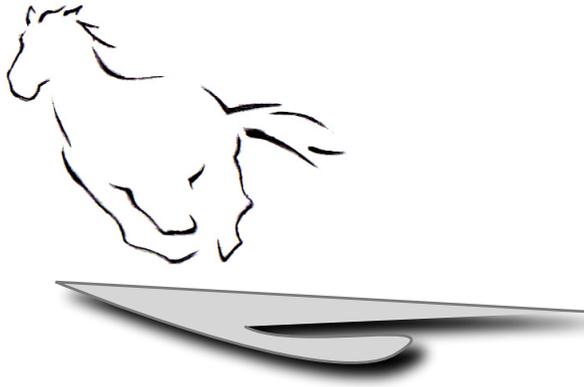
Bruce has a deep practical and academic knowledge of animal behavior and related topics. He has a Master of Science degree from a psychobiology program at *Bucknell University* that focused almost entirely on animal behavior and related subjects. He earned a PhD from the world renown *Institute of Animal Behavior, Rutgers University*, and continued with four years of post-doctoral studies that focused on behavioral neuroendocrinology. The best part is, he can communicate what he knows in straightforward, understandable terms, so, people can put it to

practical use.

Bruce is an avid horseman—a dressage and trail rider and dressage instructor. He is the author of the acclaimed book *Ten Golden Rules of Horse Training: Universal Laws for all Levels and Riding Styles*, the newly released book *Ride For Tomorrow: Dressage Today* and the highly regarded series of articles entitled *The Biology of Natural Horsemanship*. He has been helping people train and ride horses for many years through clinics and private lessons.

In addition to *Liberated Horsemanship*, Bruce serves on the faculty of *The Kerulos Center*—a non-profit organization which finds science-based solutions to pressing questions and concerns that affect the lives of animals. He is also a member of the Advisory Board of the *American Wild Horse Preservation Campaign* (AWHPC), a broad-based coalition representing over 10 million supporters, and has written a series of science-based articles for the *Bureau of Land Management* practices negatively affect the long-term health and welfare of America's wild horses. He has also written a number of declarations to support legal actions against the United States Government's management of our wild horses.





THE STORM

This document is a critical commentary about Brian Hampson's thesis on the wild horses, Brumbies, of Australia and New Zealand. I want to emphasize my comments pertain only to certain aspects of the thesis. Overall, Hampson's research project provided interesting and useful information. Liberated Horsemanship sponsored two seminars by Hampson here in the United States. We know much more about wild horses as a result.

Hampson's thesis advisor was Dr. Chris Pollitt. The advisor oversees and guides all aspects of a PhD student's thesis research. Normally, the advisor has training and experience in the student's chosen field of endeavor. That was not

the case here. Pollitt, to my knowledge, had little or no prior training or experience in wild horse research or even field research in general. Nevertheless, ultimately it is the advisor who bears the responsibility for the quality of the research, publications and conclusions drawn from findings.

What Hampson and Pollitt concluded and published¹ about the natural trim and continue to reiterate in public presentations, unfortunately, outraged many natural hoof care professionals and advocates. Their outrage, and I count myself among them, was caused by what they believe to be a biased presentation of background information and distorted conclusions based on faulty logic and a superficial understanding of the barefoot hoof care field in general and the wild horse model in particular. To them, Hampson's thesis² amounted to an unjustified attack on a practice their personal experiences tell them is beneficial to horses, without a shadow-of-doubt. After receiving numerous phone calls and email messages from irate people concerned about the damage Hampson's thesis has done to the natural hoof care movement and asking if Liberated Horsemanship will change the trim it teaches, I finally felt compelled to formally address the troublesome issues.

¹ Brian Anthony Hampson. The Effect Of Environment On The Feral Horse Foot. A thesis submitted May, 2011 for the degree of Doctor of Philosophy at The University of Queensland, School of Veterinary Science.

² Ibid.

THE DESERT BRUMBY

In the first place, it seems a bit odd to disparage the use of the wild horse foot as a model for hoof care after producing and selling a video³ that praises the form and function of the desert Brumby foot. In that video, Pollitt is clearly awed by the ability of the desert Brumby to “travel vast distances between food and water” in “one of the most hostile environments a horse can find itself in.” According to Pollitt, the desert brumbies essentially “undertake a mini-migration every few days.” “How do their hooves cope with the terrain they must travel,” he asks? It is the “tough and hard” form of their hooves, he proclaims, as he admiringly describes characteristics of those hooves and marvels at a rock that has been rounded and smoothed by hooves hitting it. Pollitt goes on to say, “This is the gift evolution has given the horses, an ever growing hoof that can accommodate this wear and tear yet stay hard and tough and allow horses to make these incredible journeys every day of their lives.”

Please, someone tell me why I wouldn't want to encourage the growth of such wonderfully functional hooves on my domesticated horses? The truth is, The Desert Brumby video makes the case for using the wild horse foot as a model for hoof care about as well as it can be made.

³ The Desert Brumby: A Story of Wild Horse Survival in Australia's Red Centre. 2009.

INNER PATHOLOGY! IS IT BIOLOGICALLY SIGNIFICANT?

In fairness, Hampson and Pollitt did detect “moderate evidence⁴” of “inner pathology⁵” in the desert Brumby foot using radiographic and histological methods. But is the so-called “inner pathology” important ... biologically significant would be the scientific way to put it? To my knowledge, Hampson and Pollitt totally failed to address this extremely important issue in any sort of scientific manner, *despite using the presence of the so-called pathology as the sole reason for denigrating the wild horse model of hoof care.*

Certainly the desert Brumbies don’t appear lame or show signs of foot sensitivity in the video, *The Desert Brumby*.⁶ In fact, Hampson and co-workers admit, “While the hard substrate foot types revealed significant internal foot pathology, horses in these populations appeared sound and were able to travel large distances over very challenging terrain.”⁷ To me, the ability to cope with

⁴ Brian Anthony Hampson. The Effect Of Environment On The Feral Horse Foot. A thesis submitted May, 2011 for the degree of Doctor of Philosophy at The University of Queensland, School of Veterinary Science, page 8.

⁵ Ibid.

⁶ The Desert Brumby: A Story of Wild Horse Survival in Australia’s Red Centre. 2009.

⁷ Hampson B, de Laat M, Mills P, Pollitt C. Distances Travelled By Feral Horses In ‘outback’ Australia. EVJ 2010. 42 (Suppl 38): 582-586. As cited on page 93 of Brian Anthony Hampson. The Effect Of Environment On The Feral Horse Foot. A thesis submitted May, 2011 for the degree of Doctor of Philosophy at The University of Queensland, School of Veterinary Science.

inner pathology should be counted as another positive attribute of the desert Brumby hoof. To take it as evidence against the usefulness of the wild horse hoof as a model for hoof care, seems like a very biased interpretation.

But again I ask, is the inner pathology biologically significant? It would not seem so from Hampson and Pollitt's observations or from what I've seen in their video. Moreover, if Hampson and Pollitt believed the inner pathology was important enough to discredit the wild horse model, they should have looked to see whether or not the hooves of domesticated horses maintained according to the wild horse model actually have such pathology. It is a key experiment critical to the validity of their conclusions **and they didn't do it.**

Here's how it seems to me. Domesticated horses don't lead the arduous life of a desert Brumby. Encourage the growth of a desert Brumby-type hoof (see picture) on a domesticated horse, which is, in fact, the goal of the wild horse model, and do you think the same so-called "inner pathology" that Hampson and Pollitt found in the desert Brumbies would be present? There is absolutely no reason to believe so.



It is unlikely that it is the form of the foot that causes the “inner pathology” ... which, in this case, appears by all available evidence to have little or no biological significance anyway. It is more likely the consequence of the desert Brumbies’ challenging lifestyle and environment. Cause and effect. It’s an important thing to get right, especially if you are a scientist. It is irrational to condemn a hoof type as a model for hoof care when lifestyle and environment are the likely culprits. The hoof as Pollitt says, is hard and tough and allows the desert Brumbies to negotiate miles of rugged terrain.⁸

Is it surprising the desert Brumby foot isn’t in perfect condition after a lifetime of almost constant movement in “one of the most hostile environments a horse can find itself in?”⁹ Not to me. Wear and tear from a hard life is to be expected. Mile after mile on hard rocky terrain—it has to take a toll. Hampson even acknowledged, “This study found a profound effect of environment on feral horse feet.”¹⁰ The thesis title is, “The Effect Of Environment On The Feral Horse Foot.” So, why the disconnect? Why make it sound like the form of the hoof is a problem? There is absolutely, positively no evidence to suggest that

⁸ The Desert Brumby: A Story of Wild Horse Survival in Australia’s Red Centre. 2009.

⁹ Ibid.

¹⁰ Brian Anthony Hampson. The Effect Of Environment On The Feral Horse Foot. A thesis submitted May, 2011 for the degree of Doctor of Philosophy at The University of Queensland, School of Veterinary Science, page 7.

such is so.

It is more amazing that the flaws, so-called “inner pathology,” apparently have little or no biological significance—at least they have no apparent effect on locomotion or ability to travel long distances. Imagine what the “inner pathology” would be if the desert Brumbies didn’t have the remarkable hooves Pollitt admiringly describes in *The Desert Brumby* video.¹¹

¹¹ Ibid.

IT WOULD UNDERMINE MY CREDIBILITY!

It seems foolhardy ... irresponsible ... to discredit a practice¹² that has helped so many horses around the world ... including horses farriers and veterinarians wrote off as unfixable.^{13, 14, 15} As a biomedical scientist, I'd be in big trouble if I disparaged a practice physicians claim to be highly effective based solely on some theoretical extrapolation from a finding that may not even have relevancy or biological significance. Yet, that essentially is what Hampson and Pollitt did.

Here's the thing. Regardless of its origin, the effectiveness and beneficial qualities of the authentic natural trim have been validated by hoof care professionals, horse owners, veterinarians, and tens of thousands of horses worldwide. If you aren't convinced that the natural trim is beneficial to horses when done properly, read the articles by Mounted Police Officer Scott Berry who was instrumental in the successful transition of the Houston Mounted Detail to

¹² Brian Anthony Hampson. The Effect Of Environment On The Feral Horse Foot. A thesis submitted May, 2011 for the degree of Doctor of Philosophy at The University of Queensland, School of Veterinary Science.

¹³ Officer Berry, S. D.: Barefoot Police Horses: How The Houston Police Department Became A Barefoot Herd Of Hard Working Horses. Liberated Horsemanship Press. LiberatedHorsemanship.com. March 30, 2010.

¹⁴ Graves, J.: My Conversion: A Farrier's Journey To Natural Hoof Care. Liberated Horsemanship Press. LiberatedHorsemanship.com, February 10, 2009.

¹⁵ Dr. Tomas G. Teskey, DVM . The Unfettered Foot: A Paradigm Change for Equine Podiatry. *Equine Foot Science*. 2005(25)77-83.

barefoot horses¹⁶ and by John Graves¹⁷, a successful farrier turned natural hoof care advocate. You can download both free from the Liberated Horsemanship website.

¹⁶ Officer Berry, S. D.: Barefoot Police Horses: How The Houston Police Department Became A Barefoot Herd Of Hard Working Horses. Liberated Horsemanship Press. LiberatedHorsemanship.com. March 30, 2010.

¹⁷ Graves, J.: My Conversion: A Farrier's Journey To Natural Hoof Care. Liberated Horsemanship Press. LiberatedHorsemanship.com, February 10, 2009.

WHAT'S THE ALTERNATIVE?

Hampson and Pollitt asserted, “Currently there is no clear evidence to suggest that the feral horse foot is preferable to the model of foot care currently accepted and used by mainstream veterinarians and farriers.¹⁸” They make it sound as if there is some unified, widely accepted hoof care model which veterinarians and farriers ascribe to. I don’t even know what to say about such a preposterous suggestion.

Hampson and Pollitt didn’t stop there. They went on to utterly discredit the wild horse model of hoof care with the statement, “The practice of using the “natural” foot model as the optimal morphometric model on which to base foot trimming practices is inappropriate.¹⁹” Really? So, what is the “optimal morphometric model?”

If not a natural trim, then what? Put shoes back on my horse? That would be the “farrier model,” right? Not a chance. I won’t make that mistake again. Who doesn’t now know the harm shoes can do? Well, apparently Pollitt whose horses are, in fact, shod according to Hampson²⁰.

¹⁸ Ibid. page 97.

¹⁹ Brian Anthony Hampson. The Effect Of Environment On The Feral Horse Foot. A thesis submitted May, 2011 for the degree of Doctor of Philosophy at The University of Queensland, School of Veterinary Science, pages 8 and 9.

²⁰ Personal communication.

Here's what Dr. Robert Cook, FRCVS, PhD, professor of surgery emeritus at Tufts University has to say about shoes versus barefoot:

All horses' hooves are healthier without shoes, and barefoot horses are healthier than shod horses. They live longer, happier, less painful lives. Barefoot is a requirement for health and should be accepted as a condition for keeping a horse. Humane management is not just preferable, it is nonnegotiable. The foot evolved to function unshod. Nature has developed the perfect design for grip and slide in all conditions and provided for unsurpassable shock absorption. The foot cannot expand and contract with each step when clamped. Blood supply to the foot is impoverished and horn production becomes deficient. When the foot is prevented from functioning correctly, the pastern, fetlock, cannon, and knee are also placed at risk. This leads to bone, joint, and soft tissue injuries.²¹

Here's how Dr. Teskey puts it:

Forcing the flexible hoof to function when restricted by a rigid, steel shoe is a powerful prescription for promoting the hoof's deterioration. It results in deformity of the hoof and other nearby tissues, disrupts physiologic processes, and leads to harmful overgrowth of the hoof capsule. When a shoe is finally removed, the overgrown hoof is trimmed in a manner designed to ensure the retention of the next shoe (rather than comply with the physiology of the hoof); thus, additional harm follows. Such trims do not respect the shape conducive to optimal hoof performance.²²

Dr. Teskey goes on to say:

In my practice the incidence of limb disease and injury is 70% higher among shod horses. Shod hooves cannot adequately dissipate forces of torque and concussion. Instead, these forces harm the hoof and are also referred up the

²¹ As reported by Marcia King. *Barefoot vs. Shod*. The Horse.com: Your Guide To Equine Health Care. August 01 2008 Article # 12778.

²² Dr. Tomas G. Teskey, DVM . The Unfettered Foot: A Paradigm Change for Equine Podiatry. *Equine Foot Science*. 2005(25)page 78.

limb to assault other structures that have not evolved to withstand these stresses and strains. The resultant harm to the horse's flesh and bone is both predictable and inevitable.²³

If you are among those still clinging to the ancient practice of shoeing horses, please read all of Dr. Teskey's article.

So, if not a natural trim or shoes, how about a "pasture trim" as done by farriers? Just kidding. It's called a "pasture trim" because it is not suitable for horses that are actually ridden. How about the veterinarian hoof care model? Still joking. Veterinarians get very limited information about horses' hooves and hoof care in vet school. It is why they rely so heavily on what farriers tell them.

Hampson and Pollitt go on to say, "traditional veterinary and farriery knowledge ... is based on over 1,000 years of practice and supported recently by several decades of empirical investigation."²⁴ My jaw dropped when I read that one. Practicing the wrong thing for a thousand years doesn't make it right. And, where are the citations for the statement, "supported by several decades of empirical investigation." Such statements **absolutely** require representative references in a scientific publication. Yet none were cited, zero. Allegedly decades of empirical investigations but not one reference? What investigations

²³ Ibid.

²⁴ Brian Anthony Hampson. The Effect Of Environment On The Feral Horse Foot. A thesis submitted May, 2011 for the degree of Doctor of Philosophy at The University of Queensland, School of Veterinary Science, page14.

are Hampson and Pollitt referring to? I'd like to know because, at this point, I seriously doubt the existence of sound empirical evidence to support shoeing horses.

One more thing ... and, let me be very clear here. Hampson and Pollitt studied feral horses **not hoof care**. They did not study or compare, in any way shape or form, different models of hoof care or methods of trimming. They did not compare the costs/benefits of a natural trim versus shoes. They did not study domesticated horses maintained according to the wild horse model to see if "inner pathologies" were present—even though it is an experiment critical to determining whether a principle assertion of Hampson's thesis is valid. The fact is, they had absolutely no basis to conclude, and especially include in a science thesis, a totally unsupported statement like, "The practice of using the "natural" foot model as the optimal morphometric model on which to base foot trimming practices is inappropriate.²⁵"

As I see it, authentic natural hoof care is the most sophisticated, comprehensive method of hoof care known today ... period. It is hoof care for the twenty first century as I've said elsewhere. It establishes a proper relationship between internal and external foot components, allows the foot to

²⁵ Brian Anthony Hampson. The Effect Of Environment On The Feral Horse Foot. A thesis submitted May, 2011 for the degree of Doctor of Philosophy at The University of Queensland, School of Veterinary Science, pages 8 and 9.

function properly to absorb shock and facilitate blood flow. It establishes an effective break over to enable agile movement in all directions and it provides a grip for secure movement on surfaces you could never safely take a horse with regular steel shoes^{26, 27}.

In addition, an authentic natural trim takes place in the context of natural hoof care. Natural hoof care includes management and use practices that support hoof health. No other method of hoof care appreciates and emphasizes the importance of horse management and use factors and works with horse owners to get those factors right like natural hoof care professionals. Why anyone, particularly a scientist, would carelessly undermine such constructive efforts to help people and horses with an unfounded assertion is beyond me.

²⁶ Corso, A.: Form Follows Function: Characteristics of the Natural Hoof. Liberated Horsemanship Press. LiberatedHorsemanship.com, December 12, 2008.

²⁷ Officer Berry, S. D.: Barefoot Police Horses: How The Houston Police Department Became A Barefoot Herd Of Hard Working Horses. LiberatedHorsemanship.com. March 30, 2010.

WHAT THE HECK IS THE WILD HORSE MODEL ANYWAY?

In criticizing the use of “the “natural” foot model as the optimal morphometric model on which to base foot trimming practices,²⁸” Hampson and Pollitt failed to acknowledge the unfortunate existence of many natural, or perhaps it would be more accurate to say barefoot, hoof care factions. I wrote an extensive article about it a few years ago.²⁹ It has been available for download from the Liberated Horsemanship website since 2009. Hampson also attended a seminar I gave on the subject in 2009. Nevertheless, Hampson and Pollitt clumped barefoot models together without acknowledging the significant differences. This shortcoming is conspicuously apparent in the Introduction to Hampson’s thesis. Put bluntly, as written, the background information is misleading and certainly misrepresents the wild horse model. For example, Hampson wrote, “proponents of the “natural” foot model ... made assumptions and recommendations for domestic foot care, such as promotion of solar loading and excessive beveling of the distal hoof wall.³⁰” The truth is, natural hoof care proponents, particularly those who abide by the authentic wild horse model, do not promote solar loading or

²⁸ Brian Anthony Hampson. *The Effect Of Environment On The Feral Horse Foot*. A thesis submitted May, 2011 for the degree of Doctor of Philosophy at The University of Queensland, School of Veterinary Science, pages 8 and 9.

²⁹ Nock, B.: *Hoof Adaptation: As I See It*. Liberated Horsemanship Press. LiberatedHorsemanship.com, 2009, Revised 2012.

³⁰ *Ibid.*, page 8.

excessive beveling of the hoof wall. In fact, they have been outspoken opponents of such practices because

they violate the wild horse model.

This is an inexcusable error that exposes a shallow understanding of the barefoot hoof care field in general and the wild horse model in particular.

CRITIC OR ADVOCATE?

Now here's the kicker. Hampson attended a Liberated Horsemanship six day Gateway to Natural Hoof Care Clinic as a student. **Liberated Horsemanship teaches an authentic natural trim** ... the natural trim that emerged from observations of the Great Basin wild horses. Here's what Hampson wrote after attending the clinic:

“In October I attended a natural hoof care clinic conducted by Liberated Horsemanship in the USA. This was a great experience for me. I learnt a great deal about caring for horses and their feet from this team of knowledgeable and very experienced horse people. We traded a great deal of information during the 1 week course. **I came home and re-trimmed all of my horses (all 15 of them!) and felt confident that I was doing the best thing for them.** ...” *Brian Hampson, PhD, Australian Brumby Research Unit, School of Veterinary Sciences, University of Queensland.*³¹

So, there you have it. If you can make sense out of the conflicting messages from the “Australian Brumby Research Unit” you are smarter than I am. As for me, I'm just going to stick with the authentic natural trim. You know, the one Dr. Hampson declared he felt confident about doing on his horses.

³¹ Bold highlight color was added to the quotation by author. You can read the quotation in its entirety at http://web.mac.com/brucenock/Site/Gateway_Clinics_testimonials.html.