

## Natural Balance and Diffusion of Innovation

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*Diffusion of innovation theory both predicts the adoption of Natural Balance and explains the initial reluctance to adopt by horse owners and equine practitioners.*

Natural Balance is a farrier science innovation that has helped upgrade the level of soundness and performance in the horses I trim and shoe. While I have been personally convinced of the merits of Natural Balance for some time, I have been surprised by the speed at which the Natural Balance approach has been accepted by clients, veterinarians, and farriers.

Interestingly, there is a well-accepted social science theory of adoption, begun in the 1930's, called *diffusion of innovation* [Diffusion of Innovation, Everett Rogers, 2003] that predicts adoption of new practices in terms of the innovation's attributes and the potential adopter's characteristics. By definition, an innovation is an idea or a practice that is perceived as new to an individual. The perceived attributes of an innovation, which can predict its adoption, are compatibility, relative advantage, trialability, observability and complexity. A full discussion of these attributes and potential adopter characteristics can be found in Diffusion of Innovation, Everett Rogers, 2003, 5<sup>th</sup> edition. I have included summaries of their definitions below.

### Attributes of innovations

#### *Compatibility*

Compatibility is the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters. Old ideas are the mental tools that individuals utilize to assess new ideas. One cannot deal with an innovation except on the basis of the familiar. Regarding a compatibility with needs, potential adopters may not recognize a need for an innovation until they become familiar with the new idea.

Natural Balance principles are no different than traditional shoeing principles which are to promote soundness and enhance performance, both desirable conditions which are consistent with current values of horse owners and practitioners.

#### *Relative advantage*

Relative advantage is the degree to which an innovation is perceived as better than the idea it supercedes. Relative advantage can be expressed as economic profitability, low initial cost, a decrease in discomfort, social prestige, a saving in time and effort, immediacy of reward, and

prevention of an unwanted event.

Natural Balance services the needs of potential adopters seeking improved methods to maintain soundness and performance. Natural Balance can save veterinary dollars for horse owners by improving soundness and performance. Farriers and veterinarians capable of improving soundness levels are considered experts in their field. The only cost for these potential adopters is education; the same tools and skills are used, but education about anatomy and shoe placement is required. The avoidance of impar ligament injuries, and injuries to the area of attachment of the DDF to P3, are examples of two injuries being avoided. Farriers who treat lameness successfully tend to receive higher financial compensation, and their opportunities to learn are enhanced due in part to their continual interaction with the veterinary community.

### *Trialability*

Trialability is the degree to which an innovation may be experimented with on a limited basis. New ideas that can be tried on an installment plan are generally adopted more readily than practices that must be adopted as a whole. A personal trying-out of an innovation gives meaning to the innovation by letting an individual find out how it works under one's own conditions. This trial behavior helps dispel uncertainty, especially among early adopters.

Natural Balance can be utilized on a trial basis. The owner, the farrier, and the veterinarian if he or she is involved, can together evaluate the changes in a horse's movement over a period of 6-8 months or 3 shoeings. And Natural Balance can be tried on a horse whose problem has not responded to traditional shoeing methods.

### *Observability*

Observability is the degree to which the results of an innovation are visible and can be described to others. Observability is a characteristic that promotes adoption among later adopters who can observe earlier peer success with the adoption.

Natural Balance is easily observed. Stride, soundness, and attitude changes are easily observable, frequently immediately upon completion of the shoeing and the changes can continue to be monitored. Typical among the observable effects are the lessening of hoof distortion and the consistency of angles and break over points. In my practice, I have seen farriers, veterinarians, and horse owners adopt Natural Balance once they were able to observe positive results with Natural Balance on other horses.

### *Complexity*

Complexity is the degree to which an innovation is perceived as difficult to understand and use. An innovation that is easily understood will increase the rate of adoption.

Natural balance has a moderate degree of complexity. However, with recently developed methods for teaching Natural Balance principles and guidelines, the approach is now more simplified. Natural Balance relies on anatomical research that is available in authoritative texts such as Lameness in Horses by O.R. Adams, from wild horse research and practice by Gene Ovnicek, and from recent physiological studies from researchers such as Bowker and Clayton at Michigan State University.

### Five types of adopters

Historically, an adopter falls into one of five categories identified by the individual's personal and social characteristics. Individuals are typed as belonging to the following categories: Innovators, Early Adopters, Early Majority, Late Majority, and Laggards.

#### *Innovators: Venturesome*

Venturesomeness is almost an obsession with innovators. Their interest in new ideas leads them out of a local circle of peer networks and into more cosmopolitan social relationships. The innovator must be able to cope with a high degree of uncertainty about an innovation at the time he/she adopts. The innovator must be able to accept an occasional set back when a new idea proves unsuccessful, as inevitably happens. While other members of a local system may not respect an innovator, the innovator plays an important role in the diffusion process: that of launching the new idea in the system by importing the idea from outside of the system's boundaries.

#### *Early Adopters: Respect*

Early adopters are a more integrated part of the local social system than are innovators. This adopter category, more than any other, has the highest degree of opinion leadership in most systems. Potential adopters look to early adopters for advice on whether or not to adopt an innovation. The early adopter is respected by his peers and is the embodiment of successful, discrete use of new ideas. In one sense, early adopters put their stamp of approval on a new idea by adopting it.

#### *Early Majority: Deliberate*

The early majority adopts new ideas just before the average member of a system. The early majority interacts frequently with their peers but seldom hold positions of opinion leadership in a system. The early majority is one of the most numerous adopter categories, making up one third of all members of a system. The early majority may deliberate for some time before completely adopting a new idea. "Be not the first by which the new is tried, nor the last to lay the old aside", particularly fits the thinking of the early majority. They follow with deliberate willingness in adopting innovations but seldom lead.

### *Late Majority: Skeptical*

The late majority adopts new ideas just after the average member of a system. Like the early majority, the late majority makes up one third of the members of a system. Adoption may be both an economic necessity and the result of increasing peer pressures. Innovations are approached with a skeptical and cautious air, and the late majority do not adopt until most others in their system have already done so. Their relatively scarce resources mean that most of the uncertainty about a new idea must be removed before the late majority feels that it is safe to adopt.

### *Laggards: Traditional*

Laggards are the last in a social system to adopt an innovation. They possess little opinion leadership. The point of reference for the laggard is the past. Decisions are often made in terms of what has been done previously, and these individuals interact primarily with others who also have relatively traditional values. Laggards tend to be suspicious of innovations and change agents. Their innovation-decision process is relatively lengthy, with adoption and use lagging far behind awareness-knowledge of a new idea. Resistance to innovations on the part of laggards can be entirely rational. For instance, precarious economic positions may force individuals to be extremely cautious in adopting innovations.

### Natural Balance and the adoption curve

As an innovation, Natural Balance adoption will more than likely behave in a similar manner to the over 2,000 innovations studied to date. The adoption curve begins to climb once interpersonal networks become activated and begin to spread the innovators' and early adopters' positive evaluations of the innovation from peer to peer. Once 15% to 20% of a potential adopter population, which in this case would be a local hunter-jumper community or a barrel racing peer group, adopt an innovation, it is often impossible to stop further diffusion of the new idea. In my practice, this 20% adoption point was met in 12 months, and 98% of my clients' horses are now being shod with Natural Balance methods after 36 months. Typically, the diffusion curve, which is S-shaped, begins to level off after half of the individuals in a social system have adopted, because each new adopter finds it increasingly difficult to tell the new idea to a peer who has not yet adopted. At this point in time the early majority category has adopted, and the innovation begins replacing the traditional method or product.

### Reasons to change

There were many reasons why I chose to adopt Natural Balance as an innovation. I was still experiencing too many horseshoeing failures with traditional methods, some of the worst of which were impar ligament damage and flexor attachment to P3 and P3 injuries. Most of these damages were caused by the migration of the toe too far out in front of the horse during the shoeing period. These types of injuries are career ending injuries, and, unacceptable. Because

statistics show that the majority of lameness in horses is below the knee, and because a large percentage of these lameness cases are shoeing related, there is every reason to try a different approach. I have had clients tell me that the horseshoeing industry is failing the horse industry, and I cannot argue with this statement.

### Perceived failures of Natural Balance

Natural Balance as a method can fail when the principles and the applications are misapplied. Natural Balance is not about the shoe, although the shoe makes the whole process much easier to apply. The use of a Natural Balance shoe with traditional trimming and shoe placement methods is a prescription for failure. In order to apply Natural Balance properly, farriers, veterinarians and owners must acquire new information on anatomy, thereby completely changing the way the hoof is trimmed and where the shoe is placed. While most professions require continuing education, the farrier industry has no such requirement. To my mind, it is the responsibility of every hoof care practitioner to increase his or her own education on an annual basis. It is the farrier industry's responsibility to find more horse friendly methods of practice. How else can we gain respect as professionals? Natural Balance shoeing methods would increase practice by practice if a farrier educational component were required.

### *Personal experience*

My experience with Natural Balance, which began in 1991, was frustrating at first. The information used for trimming and application was not as complete as what I use today. Today's complete line of Natural Balance shoes was not yet available, and the early shoes were different and difficult to use. Then, in the late 1990's, I trained to use the EDSS system. I put Ovnicek's wild horse research together with Bowkers research and it all started to make sense. It became logical and my success with Natural Balance became an every day occurrence. I began to understand feet so differently that it was literally a daily revelation. I wasn't just shoeing horses, I was rehabilitating feet. By early 2002, I was having an ethical problem shoeing horses in a traditional fashion. I felt guilty if I did not use Natural Balance principles. I became aware that I could do so much more *for* the horse, not just *to* the horse, so I made the move to shoe all the horses I work on with what I felt were much sounder Natural Balance principles.

This is how I continue to practice today. Natural Balance is constantly evolving with additional research every day, so I continue to evolve with it, hoping to improve upon what I can do for horses today and in the future. I would encourage others to look seriously at adopting Natural Balance for their own benefit, for their clients, and for our industry because it is the right thing to do for our equine friends.

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Pat Thacker has been a professional farrier for 27 years. He graduated from Cal Poly farrier

science program under Gene Armstrong in 1979, and is currently the president of the Idaho Farriers Network. Thacker is the owner and operator of the Equine Hoof Soundness Clinic in Eagle, Idaho, where he incorporates the principles of Natural Balance in the treatment of chronic and acute lameness cases. Thacker has specialized in shoeing performance horses using these same guidelines since 1991, when he was first introduced to Natural Balance. His methods have evolved, along with the principles of Natural Balance, over the last 14 years. Thacker is a registered journeyman farrier [RJF] with the Guild of professional farriers. Thacker is recognized by the EDSS Corporation as an educator of Natural Balance principles and guidelines. Through his Equine Hoof Soundness Clinic, Thacker teaches horse owners, veterinarians and farriers how these guidelines can be implemented into their hoof care practices to help maintain and improve the soundness level of the horses they work with. Thacker can be reached by calling (208) 283-6525.