



BROWSING on Amazon one night I came across a book called 'Fads and Fallacies in the Name of Science' and subtitled: 'The curious theories of modern pseudoscientists and the strange amusing and alarming cults that surround them. A study in human gullibility'.

I couldn't help but wonder if Nick Mordin's theories on Polytrack storing energy and returning it to the horse, like a trampoline, were included in this book or if they were waiting for the next edition.

In an article in the Racing Post Weekender, 'systems guru' and self-styled statistician Mordin told us that 'research shows that Polytrack stores a horse's energy as they land and returns part of it when they spring up'. Or, to be fair, that was maybe one of those headline writers again. I couldn't actually find that exact phrase, in its entirety, in the article but that is certainly what he was suggesting.

He has set out with that hypothesis and has tried to make some facts fit and to draw evidence from a couple of academic papers.

Unfortunately, the facts don't fit and there is no evidence that I could see in those scientific papers to support his theories.

The authors of the papers he refers to do indeed demonstrate that some surfaces can produce a significant 'energy return' and that this aids performance (in human athletes), rather like a trampoline. But there is no mention of a horse, no mention of Polytrack or any-

Boing! Sorry Nick, facts don't fit your trampoline theory

thing similar, and the only reference to sand is when, in one paper, it states that 'the sand/rubber mixture in the infilled turf surfaces absorb a lot of energy and are not well suited to store and return energy'. I assume Nick didn't read that far.

And his analogy with the trampoline, while it might be helpful in explaining

as stretching or compressing a spring – as in a trampoline. The amount of energy stored is equal to that required to deform the object and it is released when the object returns to its original state. Does Polytrack return to its original state as the horse lifts its foot? No, it does not.

On the best of synthetic surfaces we are left with a very clear hoofprint where the impact took place and the surface was compressed and on a less than ideal, loose surface such as fibresand or the Polytrack at Wolverhampton, we are

left with a crater. No horseracing synthetic surface returns to the original state as Tartan Track or other human athletic tracks would. The nearest to that might, arguably, be Good-Firm turf.

Of course we could say that, at a microscopic level, there is some return of the surface and hence there must be some return of energy, just as we could

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how a rubber surface or shoe can return energy to a human runner or jumper, if anything, explains exactly why Polytrack and similar sand-based surfaces cannot work in the same way.

The energy returned from a rubber, or similar, surface is known as Elastic Potential Energy and it is potential energy which is stored as the result of deformation of an elastic object, such

Poor prize-money is at root of integrity issues

his hat'.

Well, I agree with him. When you put on so much racing at such a low level with prize-money that hardly scratches the surface of the running costs, people will look for other ways to make it pay or, at least, to minimise their losses.

Let's face it, many of the runners at low-grade, all-weather, meetings are owned by people who couldn't and wouldn't claim to be among the mega-rich owners who can afford to



Running on the Polytrack at Lingfield. But are the horses bouncing?

say that the opposite and equal reaction to a horse, or even a flea, jumping is the earth moving away from the animal. But the movement and the return of energy is so small that it is immeasurable. The principal requirement for the synthetic, or turf, surface is to slow the hoof down gradually, as it compresses, on impact. Not to return energy as on a trampoline.

HAVING convinced himself that his theories have some foundation, Nick then goes even further into fantasy land by suggesting that, in order to get the greatest benefit from the 'trampoline', the horses must strike the ground more slowly

race with no hope of a return. And many are trained by trainers who are struggling to make ends meet from training fees and a percentage of meagre prize-money. Very few are there for the day out and the thrill of trying to win.

They are there because they see it as their best chance of winning with their moderate horses and, if they have done the most basic sums, they know that, even if they do win, prize-money won't give them the return they need to make it all worthwhile. Many will conclude

and they will then build up a store of energy to use in a sprint finish.

This, he says, explains why races on Polytrack are rarely won by wide margins (he obviously hadn't seen many of our January winners at this stage). He backs this up with some statistics which demonstrate that only 4.3% of British Polytrack races have been won by five lengths or more compared with a figure of 7.1% for turf races.

Strangely, for a statistician and 'systems guru', he doesn't seem to have bothered to factor in the going range on turf which stretches from Firm to Heavy, while Polytrack very rarely varies from Standard, which would be a pretty fast surface.

that they need to gamble and that, to gamble successfully, they need an edge.

Some claim that 'crooked' is too strong a word for the practices that go towards giving horse connections an edge against the bookmakers, and some will point to recent events and say that a significant edge can be achieved without breaking any rules of racing.

But others, like me and John Butler, are realists and like to call a spade a spade.

Downright travesty to downgrade Queen's Vase

I AM saddened and frustrated by the demoting of the Queen's Vase from Group 3 to Listed. The decision demonstrates much that is flawed in a Pattern Race system that is urgently in need of review and modernisation.

The system whereby the status of the race is dependent on the average rating of the first four horses over the last three years, under which the Queen's Vase failed by less than 2lb, is flawed and is not evenly applied throughout Europe. What more can a race like the Queen's Vase, which is a test for the best three-year-old stayers in mid-season, do than produce the winners of the St Leger and the Ascot Gold Cup in its last year as a Group race?

It is a travesty to downgrade it to Listed class.

WHAT is the definition of 'temporary'? My dictionary says 'lasting for only a limited period of time; not permanent'. Fair enough. I suppose that definition could, loosely, be applied to Epsom's saddling boxes which have been in use since the new parade ring was built in 1995 and have not been moved, apart from when a few of the vinyl structures blew away, since 1998.

Anyway, they are, at last, being replaced with 'permanent' structures which will, presumably, be expected to see us all out. So let us hope that someone from Jockey Club Racecourses has visited Hamilton, Musselburgh or Ascot to see how to do the job properly. Believe it or not, many racecourses have built saddling boxes, even in relatively recent times, with, it would seem, little or no concern for the purpose for which they are intended.

P.s.

JOHN BUTLER and I are not the only ones who recognise that low-prize money leads to underhand practices and, ultimately, corruption in racing. Bill O'Gorman has recognised it for years and he tells us in his letter to the Klarion, reprinted from 2011, that the Jockey Club recognised it as long ago as 1877.