

BAROMETER

A marathon of cheats

Russian athletes may be stripped of the medals they won at the 2012 Olympics, but what of the earliest-known drug-taker in the modern Olympics? Thomas Hicks won the 1904 marathon in St Louis after taking two doses of brandy laced with strychnine. — Hicks collapsed on the finishing line and had to be revived. There being no rule at the time against drugs, he was allowed to keep his gold medal.

— Not so a man who reached the finishing line ahead of him, fellow American Fred Lorz. He was disqualified after admitting that he had taken a car most of the way.

Police, camera, revenue

The police and crime commissioner for Bedfordshire is thinking of turning on speed cameras on the M1 24 hours a day. On which roads do most fatalities occur?

DEATH TOLL IN 2014

Urban A roads	339
Urban B roads	111
Urban minor roads	302
Extra-urban A roads	578
Extra-urban B roads	112
Extra-urban minor roads	131
Motorways	85

Roads to happiness

According to the Office of National Statistics, 880,000 of us spend at least three hours a day commuting to work. Does it make us happy? Here are scores on the government's new life-satisfaction measure, relative to people who commute up to 15 minutes a day.

16-30 mins	-0.03
31-45 mins	-0.01
46-60 mins	-0.07
61-90 mins	-0.17
91-179 mins	-0.16
More than 180 mins	+0.07

Sporting shares

Premiership footballers have lost millions investing in property. Have fans who invested in football clubs fared any better?

— Manchester United is quoted on the New York Stock Exchange, although the Glazer family continues to own 80% of the company. Investors could have bought the shares for \$14 each when issued in August 2012. Last week they were trading at just over \$18, a profit of **28%**. No dividend.

— Celtic is listed on the London Stock Exchange. Over five years its shares have produced a **69%** return and over ten years 79%. No dividend.

— Rangers was floated in 2000. Its shares were delisted from the Alternative Investment Market in April, making it hard for fans to realise any value remaining.

Send in the clones

The super-rich are already bringing beloved dogs and horses back to life. Soon the rest of us will be able to do it too

CAMILLA SWIFT

How much do you love your dog? Do you secretly wish, as he or she grows older, that you could have another just the same? I'll bet that tens of thousands of Brits feel this way — and soon their dreams could come true.

When most of us last thought about it, cloning was an off-putting and futuristic prospect. Dolly the sheep was the poster girl, and things didn't turn out too well for her.

But times change, science creeps on, and last year a Brit called Rebecca Smith had her beloved dachshund, Winnie, cloned in South Korea. The going rate for Mini-Winnie would have been £60,000, but Rebecca won a competition and so — except for the obligation to appear in a TV documentary about the process — Mini came for free.

£60,000 sounds steep, but costs will almost certainly plummet, as they do with any new technology. And one reason we can be sure that cloning is the future is that it's already very much in the present.

Cloning is banned in the racing world — there's too much cash at stake, and too many opportunities for scams. But in polo, cloning a prized pony is becoming increasingly popular. One of the world's top players, Adolfo Cambiaso, has cloned dozens of his favourite horses with great success. Cambiaso is so keen that he has become a partner in a cloning company, Crestview, which has its own laboratory near Buenos Aires. One day, he's said, he'd like to play in an entire match that involves only cloned horses. They are turning out to be in hot demand. In 2010, a clone of one of Cambiaso's best horses, Cuartetera, sold for \$800,000.

Polo has set a precedent — and naturally other equestrian sports are clamouring to join in. The Olympics in Rio next year will theoretically be the first Games at which clones would be permitted to compete; equestrian sports' governing body, the FEI, changed its rules in 2012. A clone of Tamarillo — the event horse who competed with William Fox Pitt at the Athens Olympics, and who died this summer — was born two years ago, and although he would be too young for 2016, Tomatillo would be more than ready by 2020.

Poor Tomatillo may never get the chance, though — because breeding's where the money is. The original, Tamarillo, had been gelded and so couldn't pass on his genes naturally. There's every chance the clone, Toma-

tillo, will never even race. Instead, he'll be the sire Tamarillo couldn't be.

Because of the cash involved, horses often pioneer fertility treatments that are later used in humans. The major breakthroughs in freezing sperm first came from the need to transport the seed of equine champions overseas. There's even a story from the 1300s involving an Arab chief who stole semen from a stallion and used it to impregnate his own mare: the first artificial insemination. Embryo transfers were first carried out in horses in the early 1970s, so that a dam could continue her illustrious career undamaged by motherhood. This was almost a decade before the procedure was successfully used in humans. Back

In polo, cloning a prized pony is becoming increasingly popular

then embryo transfer was a controversial topic — people fretted and agonised over it, just as they do over cloning now.

Some worry that the clones of famous horses will be looked at simply as status symbols for the super-rich. You could own 'a Cuartetera' or 'a Tamarillo' in the same way that you can a Ferrari or a Lamborghini. But is that the real issue here?

More significantly, the success rate of cloning remains low, and animal-rights campaigners argue that the number of deformities, as well as the health problems that some clones still develop in later life, mean that it should be banned.

Then, even if all goes well and the technology advances, there's the sporting argument. Is cloning an animal that you know has great potential a gentlemanly way of behaving? Isn't it a little like betting on a certainty?

Cambiaso and his team hope so. 'She is not like Sage — she is Sage,' his right-hand man, Pablo Spinacci, has said of one of their clones. 'She is the same, they are the same.'

Interestingly, Rebecca Smith doesn't agree. Perhaps because Mini the cloned dachshund spent her first months in a lab, her character is 'slightly different' from her mother's. Mini is less laid back, says Rebecca.

Even so, as the cost of cloning plummets, a significant market is bound to emerge here. A dog, it turns out, is not just for life, but potentially for ever.