

Falling ... and flying

David Alderson considers what the myth of Icarus can teach us about making and living with mistakes

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ENT Surgeon, Torbay and South Devon NHS Foundation Trust he story of Icarus has inspired many writers and artists as they have tried to understand what it is to fail during human endeavour. Can it show us how to respond to mistakes within surgery?

Daedalus, imprisoned on the island of Crete, plots an escape using wings stuck together with wax. He cautions his son, Icarus, not to fly too close to the sun. Then they set off. The poet Ovid takes up the story: When now the boy, whose childish thoughts aspire

To loftier aims, and make him ramble high'r.

Grown wild, and wanton, more embolden'd flies

Far from his guide, and soars among the skies.

The soft'ning wax, that felt a nearer sun, Dissolv'd apace, and soon began to run. The youth in vain his melting pinions

shakes, His feathers gone, no longer air he takes: Oh! Father, father, as he strove

Down to the sea he tumbled from on high,

And found his Fate.

All surgeons have had that experience of falling: the clammy realisation that something you've done, or haven't done, will have a major impact. The pit of your stomach drops away into a void.

Time slows – like walking through treacle – and equally runs away as the brain fails to comprehend the emerging reality. Part of you hopes that you've misunderstood – it will all be alright – while a bigger part grapples with the dawning realisation of just how bad this may be.

Mistakes can have terrible consequences for patients, but they

deeply affect all those involved. The term 'second victim' describes these repercussions for clinicians, but it remains a contentious term for many. Some suggest that pilots, with skin in the game, are more careful than doctors because they crash alongside their passengers. However, studies show a widespread tendency for surgeons to crash metaphorically – through alcoholism, drug abuse, divorce and mental illness – in those who leave the profession and in those who commit suicide.

Margaret Murphy's son Kevin died after medical error. She suggests that 'shared abandonment' better encapsulates the suffering of patients, families and clinicians alike.

Marc Chagall painted Icarus mid-dive, caught in a flash-bulb while the whole world looked on. Susan Scott *et al*¹ asked surgeons about the impact of mistakes in those first hours and days. They described sleep disturbance, extreme fatigue, anger, overwhelming sadness and intrusive memories. They had lost confidence, feared for their reputations and experienced doubt about their future careers. Often, they had lost the ability to be satisfied by their work, avoiding the clinical area as much as they could.

Initial questions of "How could this happen?" and "What did I miss?" then gave way to "How much trouble am I in?" and "Will I ever be trusted again?" They could see no future that wasn't entirely defined by what had happened.

Pieter Brueghel's painting offers a different view. For the wider world, Icarus' fall is a footnote at the edge of the frame. The ploughman has his own furrow to plough and keeps his eyes on the ground. The shepherd hears wings, but sees no danger for his sheep. Even the falconer on the shore thinks only of regaining his startled bird's jesses. The affairs of the world sail steadily on, unruffled.

"In Breughel's Icarus, for instance: how everything turns away
Quite leisurely from the disaster; the ploughman may
Have heard the splash, the forsaken cry,
But for him it was not an important failure; the sun shone
As it had to on the white legs disappearing into the green

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Water; and the expensive delicate ship that must have seen Something amazing, a boy falling out of the sky,

had somewhere to get to and sailed calmly on."

WH Auden, Musée des Beaux Arts

Jason Han *et al* explain how the hard-wired biases of our brains adversely affect our ability to gain a proper perspective on mistakes, reducing our willingness to be open and honest in the aftermath of error².

Fundamental attribution error describes the tendency to put ourselves centre stage. We're aware of the importance of a human factors-based approach to learning from error, but this hasn't diminished our instinct to blame ourselves.

Forecasting error makes us fear the worst: overestimating the scale and duration of harm, while underestimating the physical and psychological resilience of those affected. The consequences will often be less than we initially suppose. The world may go on very much as it would have before.

According to Brueghel when Icarus fell it was spring a farmer was ploughing his field the whole pageantry of the year was awake tingling near the edge of the sea concerned with itself sweating in the sun that melted the wings' wax unsignificantly.

William Carlos Williams, Landscape with Fall of Icarus

Hindsight bias causes us to see a linear path leading towards failure. We rewrite our past in the light of that subsequent mistake.

The story of Icarus has become a shorthand for hubris. The moral is 'be

cautious, stay on the ground, fear failure'. Seth Godin³ argues that this is a fundamental misreading of the myth. Icarus was indeed warned about straying too high,

but also about flying too low.

My boy, take care To wing your course along the middle air;

If low, the surges wet your flagging plumes;
If high the sun the melting way.

If high, the sun the melting wax consumes:

Steer between both

Ovid, Metamorphsis

Before he fell, Icarus was doing something that no human had ever done. Henri Matisse shows him soaring among the stars, his wildly beating heart vividly alive. The moral of the story is not 'stay on the ground'. It is 'learn, then fly better'.

Everyone forgets that Icarus also flew. It's the same when love comes to an end, or the marriage fails and people say they knew it was a mistake, that everybody said it would never work...
I believe Icarus was not failing as he fell,

but just coming to the end of his triumph.

Jack Gilbert, Failing and Flying

Learning to live with our mistakes is at the core of what it means to be a surgeon. We are beholden to our calling to avoid mistakes whenever we can, to be compassionate and transparent when they happen, to learn, and to avoid repeating them. But we urgently need to find perspectives in which neither our past nor our future is defined by our failure.

Left: The Fall of Icarus, Marc Chagall

Below: Icarus, Henri Matisse:

References

1. Scott SD, Hirschinger LE, Cox KR, McCoig M, Brandt J, Hall LW. The natural history of recovery for the healthcare provider 'second victim' after adverse patient events. Qual Saf Health Care 2009; 18(5): 325-330. 2. Han J, La Marra D, Vapiwala N. Applying lessons from social psychology to transform the culture of error disclosure. Med Educ 2017; 51(10): 996–1001. 3. Godin S. *The Icarus* Deception: How High Will You Fly? Portfolio Penguin (2012).



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