

Normalisation of deviance

In 1986 the space shuttle Challenger exploded 73 seconds after liftoff, killing all seven astronauts. The explosion was a result of a failure of O-rings in the solid rocket booster. Degradation of the O-rings had been a known concern for some time, but because NASA engineers were under management pressure to get missions airborne, and they flew a number of missions without a major incident, they started to think it was safe to continue the missions without fixing the problem. The lack of a bad outcome meant NASA engineers gradually shifted the goalposts as to what constituted an acceptable risk.

In January 2012 the cruise ship Costa Concordia ran aground in a narrow strait between Giglio Island and the Italian mainland, killing 32 people. The captain sailed closer to Giglio than the authorised route, as a “salute” to the islanders. The captain was sentenced to 16 years’ jail, but like a good aircraft accident investigator who refuses to accept “pilot error” as an answer, the chief prosecutor looked to elevate the blame. It turned out that the deviation from the planned route had been done many times, with the company directors not only tolerating, but actively promoting the procedure as it brought them publicity.

These are examples of what sociologist Diane Vaughan calls “normalisation of deviance”, a term she coined after she reviewed the Challenger disaster. One way of defining it as a gradual process by which the unacceptable becomes acceptable because there have been no adverse consequences.

I encountered an example early in my time at BP Kwinana, when I exited a tank and the Confined Space sentry told me he’d signed me out. I thought, “WTF? No one but me signs me out of a confined space.” A sentry can sign me out while I’m still inside, overcome by toxic fumes. My signature, not his, in the right place on the entry log is the proof that I’m no longer inside.

When I questioned the contractors further they said, “Yeah, we know what you’re saying Kev, but here in the parallel universe of BP they don’t do it like that.” When I elevated the discussion, it turned out it wasn’t the BP way at all. The potentially dangerous system the contracting company had been using had somehow crept in and become normalised, to the point where those using it thought it was standard BP procedure.

In all those cases, because the deviations continued for some time without any adverse consequences, they became the norm. And deviations very often continue unpunished. As safety scientist Professor Sidney Dekker says, “Murphy’s Law is wrong. Everything that can go wrong usually goes right.”

And let’s face it, who hasn’t engaged in risky behaviour that has gone unpunished? It can lead to complacency and a feeling that “well, nothing’s gone wrong so what I’m doing obviously isn’t that dangerous.” Have you ever driven when you’ve had one too many, or used your phone while you’re driving, or continued a flight when the conditions got below VMC, and gotten away with it? If you get away with it often enough, you can fall into a trap of taking risks you shouldn’t just because the risky behaviour hasn’t bitten you on the backside. Yet.

Cost savings, efficiency, publicity (in the case of Costa Concordia), and management pressure to push on (as in NASA's case) can all become more important in someone's eyes than safety, and deviant practices can become the norm.

Much of the discussion about the solution to normalisation of deviance is based on preventing it within organisations. Recommendations that came out of the Challenger investigation included:

- Don't use past success (including lack of bad outcomes) to redefine acceptable performance.
- Involve people with opposing views in a discussion of what's an acceptable risk.
- Keep safety programs independent of non-safety related factors.

An example of the last point would be a safety adviser/investigator/expert feeling free to say "This needs to be fixed" without worrying about whether it might cost too much. Worrying about the cost is what bean counters are for.

Another recommendation from Diane Vaughan is to create a culture in which you'd feel like you're letting your colleagues down if you break the rules. If Murray or I break the rules in our instructing, you could say we're letting Northam Aero Club down, as well as RACWA and most importantly our students. But if you're a private pilot, especially in your own aeroplane, who are you letting down? What incentive do you have to do things properly? Discuss over beer at the bar.

And lastly, congratulations to club member Matt Barrington, age 19. Fresh from a summer of hurling 130 km/h thunderbolts at terrified batsmen on weekends, he got back into flying in earnest last month and went first solo on Saturday 15th of May.