airport lacked ground radar so no one could locate the planes. By the time van Zanten saw the Pan Am plane it was too late. He throttled his engines full and pulled up the nose of the plane, but his fuselage clipped the top of the Pan Am jet, ripping it to shreds. The Pan Am pilot hit his engines and turned sharply into the exit path, but it was too little too late. Total death toll: 583.

The cause of this crash, investigators concluded, was a concatenation of conditions, none of which had anything to do with the psychology of loss aversion: bad weather, crowded conditions, big planes on a small runway, and misinterpretations and false assumptions.

Even if we grant the brothers Brafman the option of looking for an 'ultimate' instead of 'proximate' cause of the crash in the form of cognitive biases and behavioural persuaders that drove van Zanten to make his fateful decision to take off, loss aversion would be low on a causal vector list. Top of my list would be the 'confirmation bias', in which people look for and find confirmatory evidence for what they already believe and ignore evidence to the contrary. Once van Zanten thought he got the "OK" for take-off, everything else made sense. Or, perhaps it was the effect of 'inattention blindness', in which people attend to one task so intently that they miss obvious things in their visual field. Or it could be the 'self-serving bias' and the 'better-than-average bias' that made van Zanten overconfident in his abilities and thus less risk-averse than he might normally be. Maybe there was a 'priming effect', such that van Zanten's brain was primed to hear "take-off" in that garbled radio message. Or how about just the power of expectation?

The real problem here is the hindsight bias. Not for van Zanten, but for observers trying to read into a past event psychological effects that have been measured in the laboratory. The research on cognitive biases and judgemental heuristics — cleverly used in the service of reconstructing past events by the authors of *Sway* — is well grounded in empirical data, but the Brafman brothers face the same problem as the rest of humanity in trying to make sense of seemingly chaotic human behaviour: those very same biases operate in the process of using them to explain someone else's behaviour. Call it the 'meta-heuristic' bias. ■

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A. ENGLEN

Q&A: Travels with a paintbrush

Watercolour artist and explorer **Tony Foster** paints in some extreme places. He has climbed mountains, sketched erupting volcanoes and drawn underwater. As an exhibition of his works of Mount Everest and the Grand Canyon opens in London, he tells *Nature* why he goes to such extraordinary efforts.

Why did you decide to paint remote and dangerous landscapes?

I was a pop artist originally. But I got fed up with using second-hand imagery and thought I should work on things I experienced myself. My first trip followed the journeys of US writer and philosopher Henry Thoreau through the wildernesses in Maine. It seems fairly mundane now. My trips have become more and more extreme.

Your recent paintings are large, yet you paint *in situ*. Does this present unusual challenges?

All the difficulties are magnified by the scale and the location. It's much more laborious to do a big painting than a small one, and difficult physically to haul a 2-metre-wide drawing board around and lash it to the rocks in high winds. At subzero temperatures, the water for my paint freezes so I mix it with gin.

I suffered from altitude sickness in the Himalayas. I didn't realize how ill I was. I got sicker and sicker until I realized I couldn't carry on. I was coughing blood.

Sometimes it is appallingly difficult and miserable. That's spiced by moments of extraordinary joy if things work out.

Natural subjects were traditionally drawn by artists; now photography has taken over. What are your paintings trying to capture?

I'm not striving for accuracy, but honesty. The work looks different if done *in situ*, rather than from a photograph, which doesn't contain enough information. My paintings evoke a much greater emotional response. The work isn't just about how the landscape looks, it's about what it's like to live in it and to take the journey.

My exhibition pictures are framed with maps, diary notes and souvenirs. Flint arrowheads on the Grand Canyon paintings symbolize that it has been inhabited for thousands of years. The souvenirs under the Tibetan painting are Buddhist objects. One is wrapped up in Chinese newspaper, bound up and sealed to symbolize the suppression of Tibetan Buddhism.

How did you approach your painting of the Grand Canyon?

It's like doing an enormous jigsaw puzzle. If you try to push in bits that are the wrong shape, it will never work. Two of my most stalwart hiking companions are scientists, geologist Bill Brace from the Massachusetts Institute of Technology and Winslow Briggs, a Stanford University plant biologist. Travelling through the Grand Canyon with a world-class geologist really made me look.

I don't think art has to have a purpose, but if my work has one then it is to bring back to people these magnificent places of untouched nature that are sublimely beautiful and worthy of our attention and protection. ■

Interview by **Daniel Cressey**, a reporter for *Nature* based in London.

Searching for a Bigger Subject: Tony Foster
Royal Watercolour Society, Bankside Gallery, London
2–20 July 2008; then until September 2009 in various galleries in the United States.