

Experience matters when it comes to pilot control

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Credit: CC0 Public Domain

Fear of flying might seem an odd impetus for a scholarly study, but it was just the push Psychology Ph.D. candidate Hiten Dave needed.

Dave grew up near an airfield in Tanzania, where his classmates pretended to soar around the schoolyard. His father aspired to be a pilot. But even being bitten early by the travel bug didn't alleviate his concern that there was something unnerving about being at the mercy of a tin can and a pilot together defying gravity.

His recently published study, "Assessing Locus of Control in Pilots: Validation of a Self-Report Measure," examines whether the best pilots feel in control of their surroundings or if they're more likely to believe external conditions control them. His findings, he believes, not only will make for better pilots, but safer skies.

You want to be on a plane, he figured, with a pilot who is convinced most [accidents](#), both large and small, are avoidable, than with someone who thinks they're mostly a matter of fate, chance or luck. If things go wrong, is your pilot's default to throw their hands up and blame others or start figuring out a solution?

What Dave found was that experience in the sky, not age, shifts that balance toward that latter mindset.

Pilots with more flying hours are more likely to feel they can avoid adverse circumstances. They are more likely to take extra steps to avoid accidents in the first place and are less likely to blame external problems if a predicament does arise.

And that in turn makes them safer pilots.



Psychology PhD candidate Hiten Dave hopes his research can be used to refine a common psychological tool used to assess pilots' external and internal 'locus of control' – that is, the degree of their belief in the effectiveness of processes or in their own ability to manage the unexpected. Credit: Debora Van Brenk/Western News

Dave hopes his work can be used to refine a common psychological tool used to assess pilots' external and internal 'locus of control' – that is, the degree of their belief in the effectiveness of processes or in their own ability to manage the unexpected.

The locus-of-control question is more than just a problem-solving attitude; it closely correlates to aviation safety issues such as risk perception, attending safety clinics, accident rates and job burnout.

Dave noted pilots, in general, are better problem-solvers than most of us. What he wanted to understand specifically was whether that correlates with age and/or experience.

Using a database of 476 European pilots, he discovered those with more hours of flying time showed highest problem-solving attitudes and precautions. "These are the best of the best," he said.

"We can support the notion that as pilots gain more tenure, they tend to take more responsibility for safety behaviours and thus more likely avoid aviation accidents," he said.

The pilots rated their beliefs on a scale of one to five in answering statements such as:

- Most accidents and incidents can be avoided if pilots use proper procedures;
- Most accidents can be blamed on poor regulatory oversight;
- There is a [direct connection](#) between how careful pilots are and the number of accidents they have; and
- Most accidents are unavoidable.

Dave's supervisor in the work is Psychology professor Don Saklofske. Co-authors of the study are Psychology professor Paul Tremblay, along with Karina Mesarosova from the Univeristy of Zilina, Slovakia, and Alex Siegling at University College, London.

Dave's next research is determining whether pilots with a with a greater sense of controlling a situation also have fewer incidents, which he suspects is the case.

While it's good information for pilots and the aviation industry to have, it also offers him some sense of reassurance. "I'd be much safer in the

hands of a resourceful [pilot](#) who does everything he can to avoid accidents. They're more proactive in trying to avoid aviation hazards."

But he's still not keen on flying.

"To this day, I am terrified of turbulence and I'm thankful when the plane lands and comes to a stop."

More information: Hiten P. Dave et al. Assessing Locus of Control in Pilots, *Aviation Psychology and Applied Human Factors* (2019). [DOI: 10.1027/2192-0923/a000153](#)

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