Concerns over the Criminalization of Pilots in Aviation

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Abstract
- **Objective:** The purpose of this research study is to identify the perceptions of passengers and pilots on whether or not criminal charges should be filed against pilots for varying accidents and by the type of the participant.
- **Background:** A key to maintaining top safety levels in aviation is being able to identify and solve problems before they develop into accidents. Aviation has traditionally assumed a “just culture” where admitting errors is encouraged and punishment is withheld (excluding intentional acts). However, in recent years some countries have pursued criminal charges against pilots. A concern in the aviation safety community is whether or not the increase in criminal charges against pilots will have the unintended consequence of destroying just culture and actually result in a safety decrease across the industry.
- **Results:** The preliminary findings indicate that passenger’s perceptions towards criminalization of pilots does significantly vary based on the type of case. There were also significant differences based on type of participant, and a significant interaction. The study identifies the practical applications of these findings and provides recommendations for future research.

Methods
- **Participants:** Three hundred and eight participants completed the study, which was comprised of two groups: consumers, and pilots. Two hundred and three participants (93 females) were consumers who were recruited from Amazon’s Mechanical Turk (Mturk). The average age of participants from Mturk was 38.84 (SD = 13.05) years old. Additionally, 105 participants (12 females) who were pilots were recruited via the Curt Lewis Flight Safety Newsletter (www.fsinfo.org). The average age of participants from the safety newsletter was 54.94 (SD = 12.76) years old.
- **Materials and Procedures:** Participants were first presented with an electronic consent form to verify they were over the age of 18 years old. They were then presented with a series of cases. Participants were then asked to rate their response toward criminal charges being filed against the pilot-in-charge using a Likert scale ranging from strongly disagree (-2) to strongly agree (+2), with a neutral option (0). Each participant reviewed all ten cases, which were presented in a randomized order.

Results
- **Main effects:** Type of Individual: F(2, 203) = 68.15, p < .001, η² = .31
  - Cases: F(18, 2727) = 6.34, p < .001, η² = .04
  - F(9, 2727) = 146.27, p < .001, η² = .18

- **Interactions:** Type of Individual x Cases:
  - Survey Data

Discussion
- **Case 1-4, no obvious fault in pilot actions in their mistakes:** Participants favored criminalization as they contributed to accident; pilots did not favor criminalization.
- **Case 5-10, pilot’s actions may have contributed to accident:** Participants favored criminalization.
- **Case 7, neutral response from pilots:** Participants did not favor criminalization in case 7, but did favor in cases 1-4.
- **Case 9, responses between male and female passengers statistically diverse:** Participants favored criminalization in cases 1-4 but favored in cases 5-10 likely because they judged fault in the pilot’s actions.

Conclusions & Future Research
- **Why were there differences between cases? Responses from passengers appeared to depend on whether they judged fault in the pilot or not:** Passengers did not favor criminalization in cases 1-4 but they favored in cases 5-10 likely because they judged fault in the pilot’s actions.
- **Why were there differences between pilots and passengers? As expected, pilots did not favor in criminalization because it could happen to them also. However, it could also be because pilots have more knowledge and information of safety culture and criminalization in aviation:** Further research could assess the level to which knowledge matters. We can provide information of aviation safety and criminalization to the passengers before giving them surveys. Compare the result of responses with and without providing information.

Selected References