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Pre-flight safety briefings, mood and information retention

Morteza Tehrani, Brett R.C. Molesworth*

School of Aviation, University of New South Wales, Sydney, NSW 2052, Australia

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ABSTRACT

Mood is a moderating factor that is known to affect performance. For airlines, the delivery of the pre-flight safety briefing prior to a commercial flight is not only an opportunity to inform passengers about the safety features on-board the aircraft they are flying, but an opportunity to positively influence their mood, and hence performance in the unlikely event of an emergency. The present research examined whether indeed the pre-flight safety briefing could be used to positively impact passengers' mood. In addition, the present research examined whether the recall of key safety messages contained within the pre-flight safety briefing was influenced by the style of briefing. Eighty-two participants were recruited for the research and divided into three groups; each group exposed to a different pre-flight cabin safety briefing video (standard, humorous, movie theme). Mood was measured prior and post safety briefing. The results revealed that pre-flight safety briefing videos can be used to manipulate passengers' mood. Safety briefings that are humorous or use movie themes to model their briefing were found to positively affect mood. However, there was a trade-off between entertainment and education, the greater the entertainment value, the poorer the retention of key safety messages. The results of the research are discussed from both an applied and theoretical perspective.

1. Introduction

In time critical situations, such as a rapid disembarkation during an aircraft emergency evacuation, passengers' irrational, counter-productive, and erroneous behaviour has the potential to cause serious consequences. As a result, aviation governing bodies such as the Federal Aviation Administration (FAA) in the United States and the Civil Aviation Safety Authority (CASA) in Australia mandate that airlines brief passengers on emergency procedures prior to every flight (FAA Federal Aviation Regulations (FAR) 135.117 – FAA, 2014; CASA Civil Aviation Orders (CAO) 20.11.14 – CASA, 2009). However, not all passengers attend to these briefings (National Transportation Safety Board – NTSB, 2000) and for those that do, some behave contrary to the information or instructions given. The NTSB (2000) noted that improper behaviour such as arguments, pushing or climbing over seats and removing baggage from overhead lockers were all common behaviour during emergency evacuations.

While failure to attend to the safety briefing in the first place may in part account for unruly behaviour, considering the relationship between mood and performance, ensuring passengers are prepared cognitively (i.e., in the right state of mind) to deal with the stressors of an emergency situation has also the potential to improve performance. Thus, the pre-flight safety briefing may provide airlines a unique opportunity to not only educate passengers about the safety features of the aircraft, but a chance to positively influence their state of mind, ultimately affecting performance. Since mood is often linked to performance (Kelly and Barsade, 2001) and is relatively simple to manipulate (Valdesolo and DeSteno, 2006), the present study sought to investigate if varying the content of the pre-flight safety briefing was a simple and effective way of achieving this goal.

Mood is a moderating factor similar to fatigue or noise, which affects behaviour (Tehrani and Molesworth, 2015). According to Russell (2003), mood is a prolonged affective state which is said to be divorced from any direct event or object. In contrast to emotion, which relates to specific events or objects and is short lasting, mood is generally long lasting. Positive mood has been linked to performance improvements in areas such as maths (Bryan and Bryan, 1991), attitudinal changes (Smith, 1993) and cognitive processing (i.e., heuristic processing; Batra and Stayman, 1990). Similarly negative mood has been linked to poor performance in areas such

* Corresponding author. School of Aviation, Room 205c, UNSW, Sydney, NSW 2052, Australia.
E-mail address: b.molesworth@unsw.edu.au (B.R.C. Molesworth).

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as team process (i.e., social cohesion, workload sharing, team conflict; Jordan et al., 2006), academic achievement (Lane et al., 2005) and computational game-based learning (Jackson and McNamara, 2013).

In aviation, Tehrani and Molesworth (2015) exploited the benefits of manipulating mood in a study which involved examining participants' response to a simulated aircraft ditching scenario (emergency landing in water) shortly after take-off. They found by simply presenting images of unpleasant scenes such as violence, they were able to instil a negative mood state in participants, as measured using Shacham (1983) Total Mood Disturbance (TMD) score. Conversely by presenting pleasant images such as flowers, they were able to instil a positive mood state in participants. Following mood manipulation and shortly after exposing all participants to the same pre-flight safety briefing, they simulated an in-flight emergency, resulting in an emergency aircraft ditching. They found that participants who were in a negative mood state committed seven times more errors during the evacuation procedure than participants in the positive mood state, errors such as failing to take personal life vest and carrying personal belongings to the emergency exit. Similarly participants in the negative mood state took almost twice as long to evacuate the aircraft than participants in the positive mood state.

According to Johnson (1979), airline passengers that fail to attend to the pre-flight safety briefing often underestimate the importance of the material contained within these briefings. A large proportion of the non-attenders were young educated males who felt they already knew the content of the pre-flight safety briefing. Fennell and Muir (1992) and Seneviratne and Molesworth (2015) report that frequent travellers find the pre-flight safety briefings repetitious, uninteresting and boring; as a result, a large portion of passengers remain inattentive during such briefings (NTSB, 2010). However, Molesworth (2014) contends that both airlines and aviation authorities need to take some responsibility for poor passenger behaviour in an emergency. For example, a review of three commonly employed pre-flight safety briefings found that there are between 34 and 41 key safety messages presented, which passengers are expected to extract and remember. The time provided to extract these messages average three and a half minutes. Not surprising, Molesworth found that participants attending to these messages could recall no more than 50 per cent of the key safety messages, which may explain why passengers behave contrary to the instructions in these safety briefings during an emergency (NTSB, 2000).

In 2012, a Jet2 B737 filled with fumes and smoke from one of the aircraft engines aborted take-off at Glasgow Airport and the crew completed an emergency evacuation (Air Accident Investigation Branch – AAIB, 2013). Some passengers reported they were hampered during the emergency evacuation by other passengers recovering personal items from the overhead lockers, a behaviour that is condemned in the safety briefing. Other passengers reported that after exiting the aircraft via the emergency exit over the wing, decided to re-enter the aircraft to exit by a door with a slide, rather than sliding down the surface of the wing. In a separate incident in the United States involving the forced ditching of a US Airways Flight (Flight 1549), passengers appeared to also behave in a manner contrary to the instructions provided in the pre-flight safety briefing and/or on the safety card. Moreover, only three per cent of passengers (5 passengers) retrieved their life vest from under their seat after the emergency ditching (NTSB, 2010). The NTSB also uncovered that less than one fifth of passengers (17% – 25 passengers) reported watching the majority of the pre-flight safety briefing while even less (8% or 12 passengers) reported reading the safety card before or during the flight (NTSB, 2010).

In an attempt to boost passengers' interest in the safety briefing, some airlines are utilising marketing techniques, such as employing humour to convey information or using celebrities to deliver the message (Nataraajan and Chawla, 2008). For example, Qantas in Australia and Virgin America in the United States employ celebrities to attract the attention of passengers in one of their safety briefing videos, while Air New Zealand model some of their briefing videos on popular movies or sporting events such as the Hobbit series of movies or the rugby world cup. Delta Air Lines in the United States employ humour in one of their safety briefing videos as a method to boost passengers' attention.

Tehrani and Molesworth (2015) contend that there are added advantages to improving the quality of the safety briefing on aircraft. Apart from the obvious improvements in knowledge, providing a briefing that carefully incorporates humour can positively impact on passengers' mood, which in turn can translate into improved performance (i.e., during an emergency evacuation). However, Smith (1993) offers a word of caution when using humour in advertising. He contends that humour can disrupt the systematic processing of target/advertising material/information, resulting in the target message being lost to the humorous message. Chan (2011) found that indeed humour can disrupt the processing of the target message in a study with 253 university student and five different advertisements (two humorous, two non-humorous and one neutral). Moreover, while the humorous advertisements were more successful in gaining the attention of the students, they were found to cause more disruptions during the processing of the message.

Mackie and Worth (1989) found similar results in an experiment with university students where after manipulating the mood state of half of the students through a process where they were led to believe they were lucky in a lottery draw, students read a recently delivered speech on government control and acid rain. The other half of the students did not enter a lottery draw and hence did not have the opportunity to win money, as a result were categorised as mood neutral. Two versions of the speech were presented, one containing weak arguments and a second containing strong arguments. Under time pressure to review the speech, the students in a positive mood evaluated both speeches similarly, while the students in the neutral mood relied on the persuasive augments in the strong argument speech to alter their perception. Mackie and Worth interpreted these results as evidence that positive mood adversely affects individuals ability to systematically process information.

The present research extends the research conducted by Tehrani and Molesworth (2015) and investigates the benefits of including humour or familiar movie themes/characters in pre-flight safety briefings on improving passengers' mood as well as their ability to recall key safety messages presented within the briefing. Hence, the present research seeks to investigate if:

1. Employing humour or celebrities in a pre-flight safety briefings can positively affect individuals' mood, and
2. Whether the use of humour or celebrities in a pre-flight safety briefing adversely affect the retention of the key safety messages conveyed in the briefing?

2. Method

2.1. Participants

A total of 82 participants (55 male, average age of 19.36 years and 27 female, average age of 19.26 years) with an overall average age of 19.33 (SD = 2.04) years were recruited from the student