Laughing Before Takeoff: Humor, Sex, and the Preflight Safety Briefing

Jason S. Wrench
Ohio University – Eastern

Brenda Millhouse
Ohio University - Eastern

David Sharp
Ohio University – Chillicothe

Jason S. Wrench (EdD - West Virginia University, 2002) is an assistant professor in the Communication & Media Department at SUNY New Paltz. Brenda Millhouse (BSS - Ohio University, 2006) is a master’s student in Applied Politics at University of Akron/Bliss Institute. David Sharp (BS in Communication - Ohio University, 2006) works for Federal Express. Correspondence to: Jason S. Wrench, CSB 51, New Paltz, NY 12561, USA. Email: wrenchj@newpaltz.edu
Abstract
The current study experimentally examined the effect of the use of humor in preflight safety briefings (standard script vs. humorous script) and the biological sex of the flight attendant who delivered the preflight safety briefing (female vs. male). Humorous preflight safety briefings were perceived as less rational; resulted in less content and flight attendant affect; resulted in lower levels of participant liking of the flight attendant; and resulted in lower levels of perceived flight attendant credibility. The participants in this study perceived male flight attendants to be more arousing, but viewed female flight attendants as more rational, more affective (both personally and in the preflight safety briefing content), more likeable, and more credible (competence, caring/goodwill, & trustworthiness).
Laughing Before Takeoff: Humor, Sex, and the Preflight Safety Briefing

On January 15th, 2005, the left nose wheel of Airbus 320 detached during takeoff, and after being placed in a holding pattern for two hours the airplane safely landed at London Gatwick Airport (AAIB Bulletin, 2005). While the flight crew was unharmed and there were only minor injuries reported by the 176 passengers on the airplane, the significance of this flight was less about the damaged airplane than about how the passengers responded during the emergency situation. According to a 2005 article in Flight Safety Australia covering the Airbus 320 event, most passengers did not know what to do when the oxygen masks were deployed as a result of a peaked cabin pressure during the emergency, “Recollection was [weak] – 20-30 percent – on topics of securing the mask by pulling the elastic band tight, fitting the mask first before helping others and breathing normally once the mask had been fitted” (“Most passengers need prompting,” (p. 40). In fact, in a survey after the incident, 95 percent of the passengers reported a lack of confidence in the operation of the emergency oxygen system. In essence, there was a considerable amount of passenger confusion on how to respond during an emergency situation.

The confusion during the Airbus 320 flight is a clear indication of a larger problem currently seen in today’s commercial airline industry (“Most passengers need prompting,” 2005); the public does not know how to respond during airline emergencies. Studies in the airline industry have consistently shown that despite the inflated public perception that airline safety is “common sense,” most people do not know how to properly respond during an emergency (NTSB, 2000). In a widely cited study within the airline industry, the National Transportation Safety Board (2000) found that of passengers who had been involved in an airplane emergency landing only 48 percent of passengers said they watched at least 75 percent of the preflight safety briefing. Of those who had not watched the briefing completely, 54 percent reported that they had seen it before while 7 percent thought the briefing contained “basic knowledge.” In an airplane, the only other mode of safety instruction besides the preflight safety briefing is the safety card that resides in the seatback of every passenger seat. However, the NTSB (1985) found that 68 percent of flight passengers do not read the safety card while 44 percent reported that they did not read the safety card and did not listen to the preflight safety briefing. Furthermore, Silver, and Perlotto (1997) found that when people are actually quizzed over the information in safety cards, only 67 percent of the participants understood the meaning of half of the pictures on the safety card. In essence, the cards may be mandated by the FAA (2003), but they may not be the most useful way for providing information to airline passengers about how to handle themselves during a flight emergency. Therefore, the preflight safety briefings given by the flight attendants prior to take off serve as the number one source of information.

One proposed method for handling the preflight safety briefing has been pioneered by Southwest Airlines who encourages the incorporation of humor into preflight safety briefings delivered by the flight attendants (“Creative Methods,” 2001; Freiberg & Freiberg, 1998; Hoffer-Gittell, 2005). Kathy Pettit, Southwest Airlines Director for Customer Service, was cited as saying, “We encourage [our flight attendants] to be casual and forthright. We are not afraid of song or humor during the presentation because when our flight attendants use their personalities, talents and sense of humour this results in a better relationship with customers” (“Creative Methods,” 2001, p. 37). While this method has proven fairly successful to Southwest Airlines qualitatively, “The airline does not have scientific data to support its policy on humour” (“Creative Methods,” 2001, p. 37). In fact, some argue that humor during the preflight safety
briefing can actually be detrimental, “The technique is not without potential risks. Some passengers may respond negatively, perceiving this technique as unprofessional behaviour. Critics have also said that joking might diminish the authority of flight attendants” (“Creative Methods,” 2001, p. 37). Based on the need to scientifically study the use of humor as a way to draw attention to preflight briefings, the current study set out to experimentally test the use of humor during preflight safety briefings on passenger’s reported levels of arousal, perceptions of the preflight safety briefing’s rationality, affect towards the content of the preflight briefing and flight attendant, liking of the flight attendant, and perceptions of the flight attendant’s credibility.

**Rationale**

The goal of this section is to pose a series of hypotheses and research questions about the influence of humor in preflight safety briefings. First, this section is going to explore a series of dependent variables that have been chosen to examine the influence of humor in preflight safety briefings (arousal, rationality, affective learning, liking, & source credibility). This will be followed by a discussion of the possible influence of flight attendant biological sex in the preflight safety briefing.

**Dependent Variables**

**Arousal.** Arousal can be defined as the act of stirring up or making something exciting (Mehrabian & Russell, 1974). In the case of the current research, arousal will be utilized to measure the arousing effects of the preflight briefing. Consistently, research has shown that humorous artifacts lead to increased states of arousal (Chapman, 1973, 1974, 1996; Cooper, Fazio, & Rhodewalt, 1978). Furthermore, research in education has noted that infusion of humor into an otherwise traditional lecture makes the situation more exciting for students, which in turn leads to an increase in cognitive learning (Townsend & Mahoney, 1981; Wanzer & Frymier, 1999; Wrench & Richmond, 2004; Ziv, 1976, 1988). Based on this previous research, we can therefore predict:

**H1:** Participants exposed to a humorous preflight safety briefing will experience a heightened state of arousal compared to those participants exposed to a standard preflight safety briefing.

**Rationality.** Perceived rationality is the quality of being perceived as consistent with or based on reason (Hirschman, 1986). Hirschman found that when customers perceive an organization’s communication as rational, they are more likely to financially support that organization. However, humor is a double edge sword because some people may perceive the humor as fun while others see it as frivolous (Young & Frye, 1966). As a result, the impact of humor on passenger perceptions of the preflight safety briefings’ rationality is uncertain. Therefore, the following research question is posed:

**RQ1:** What is the impact of humor on passenger perceptions of the preflight safety briefings’ rationality?

**Affective Learning.** Affective learning is “an increasing internalization of positive attitudes toward the content or subject matter” (Kearney, 1994, p. 81). While the preflight safety briefing is not education in its most traditional sense, the basic purpose of the briefing is to educate passengers on how to effectively manage themselves during an emergency situation (NTSB, 2000). Bloom, Englehart, Furst, Hill, and Krathwohl (1965) purport that there are three
Laughing Before Takeoff

primary domains in which learning occurs (affective, behavioral, & cognitive), and Richmond, Wrench, and Gorham (2001) noted that affective learning is the basic path to the other two types. McCroskey (1994) believed that affective learning in the instructional process could be broken down into a series of different concepts. For the purpose of the current study, the two most important ones in the preflight safety briefing are affect toward the teacher (flight attendant) and affect toward the content of the course (the content of the preflight safety briefing). In a meta-analysis of the research examining humor and learning, Martin, Preiss, Gayle, and Allen (2006) found a moderate effect size for the relationship between student perceptions of humor and affective learning. If the preflight safety briefing functions in the same way as a traditional classroom lecture, then the following hypothesis can be posed:

H2: Participants exposed to a humorous preflight safety briefing will report higher levels of both flight attendant and preflight safety briefing content affect compared to those participants exposed to a standard preflight safety briefing.

Liking. There is a breadth of research examining the effect of humor on interpersonal relationships (Mettee, Hrelec & Wilkens, 1971; O’Connell, 1969; O’Quin & Aronoff, 1981; Wanzel, Booth-Butterfield, Booth-Butterfield, 1996). As a whole, the research on humor in interpersonal relationships has consistently shown that humor in an interpersonal relationship leads to increased levels of liking and popularity (Wanzel, Booth-Butterfield, Booth-Butterfield, 1996). Furthermore, there is a clear relationship between affective learning in a classroom and liking of one’s teacher (Wanzel & McCroskey, 1998). Therefore, the following hypothesis is posed:

H3: Participants exposed to a humorous preflight safety briefing will report higher levels of liking of the flight attendant who delivered the preflight safety briefing compared to those participants exposed to a standard preflight safety briefing.

Source Credibility. McCroskey and Teven (1999) proposed that credibility is the combination of three factors: competence, trustworthiness, and goodwill. Competence is the extent that an individual truly knows what he or she is discussing. The second component of credibility is trustworthiness, which is the degree to which one individual perceives another person as being honest. The final component of credibility, goodwill, is the perceived caring that a receiver sees in a source. Out of all of these, goodwill may be the most important aspect of ethos (McCroskey, 1998). Research in the instructional setting has found that teachers who use humor in lectures are perceived as more credible (Wrench & Richmond, 2004), which was then replicated by Wrench and Punyanunt-Carter (2005) in the graduate advisor-advisee learning context. Since there is a clear relationship between use of humor and perceived credibility, the following hypothesis is posed:

H4: Participants exposed to a humorous preflight safety briefing will report higher levels of perceived flight attendant credibility (competence, caring/goodwill, & trustworthiness) compared to those participants exposed to a standard preflight safety briefing.
Flight Attendant Biological Sex

The first reported flight attendants were actually men circa 1911 and were labeled “cabin boys” or “stewards.” The first female flight attendant, Ellen Church, was a nurse who was hired by United Airlines to provide both in-flight medical care and basic service to the passengers, and Church coined the position as the flight’s “stewardess” (Omelia & Walkdock, 2006). The need for flight attendants to be registered nurses was set aside during World War II since most nurses were needed for the war effort. By the 1950s, stewardesses were considered “wives-in-training,” and were expected to be equally adept at mixing drinks and taking care of children. Stewardesses really became highly sexualized during the 1960s and 1970s when they were actively used in airline advertisements as a way to gain businessmen’s travel business. Freiberg and Freiberg (1996) wrote that Southwest Airlines purposefully hired females who could exude sexuality to the airline’s predominantly male clientele, “Imagine this scene: Three long-legged Raquel Welch look-alikes in hot pants and white, high-heeled go-go boots serving Bloody Marys with a smile to a predominantly male group of wide-eyed, wide-awake commuters on Southwest’s 8:00 A.M. ‘Love Bird’ flight from Dallas to Houston” (p. 38). To make sure that Southwest Airlines flight attendants were adequately trained, one of the recruitment coordinators was the trainer for Hugh Hefner’s Playboy jet. In fact, Southwest’s whole motif was “Love” oriented. “Aboard the Love Bird, drinks were Love Potions peanuts were Love Bites, drink coupons were Love Stamps, and tickets came from Love Machines. In June 1971, the ‘Somebody Else Up There Loves You’ airline began proudly promoting service within its Love Triangle” (Friedberg & Friendberg, 1996, p. 40). While early service of Southwest Airlines is more reminiscent of the short lived Hooter’s Air, Southwest Airlines eventually grew into one of the most powerful airlines in the United States. The success of Southwest Airlines is a culmination of many different factors, but clearly the sexualization of the Airline during its early years was very effective (Hoffer-Gittell, 2003). Early flight attendants were required to fit into a very specific mold including height, weight, age, biological sex, and marital status restrictions. The enactment of Title VII in 1965 of the Civil Rights Act of 1964 required these restrictions be forcibly lifted and male flight attendants started re-joining flight crews during the 1970s (McLaughlin, 1995; Omelia & Walkdock, 2006).

Today the flight attendant industry is still over 80 percent female (Young & James, 2002). According to Gamble and Gamble (2003), any occupation where more than 75 percent of the workers belong to one specific biological sex is considered sex segregated. As a result of this sex segregation, people of the minority sex are perceived as “oddities” because they violate workplace norms. The norm within the airline industry still perceives women as flight attendants, and those flight attendants epitomize middle-class perceptions of heterosexual femininity (Hochschild, 1983). Where females are the epitome of heterosexual femininity, their counterparts, the pilots, represent the epitome of heterosexual masculinity (Mills, 1995). Male flight attendants then pose a break from the heterosexual fantasy created by traditional airlines (Butler, 2004), so people create the assumption that the violators of the heterosexual fantasy must be gay (Lock & Kleis, 1998; Patel & Long, 1995). While the exact number of gay flight attendants is not known, one study found that often heterosexual male flight attendants undergo serious amounts of sexual harassment based purely on their perceived sexual orientation (Williams, 2003; Young & James, 2002). Since there is a bulk of research that supports the notion that violators of sex-role expectations are deemed as aberrant, the following hypothesis can be made:
H5: There will be a significant difference between female and male flight attendants on the study dependent variables (arousal, rationality, affective learning, liking, & source credibility).

**Method**

**Participants**

Participants in this study included 154 undergraduate students in a variety of majors who were approached in a variety of academic classes from two different campuses in a large mid-western university campus system. Students on these campuses tend to be older than your traditional college age sample, which is reflected in the mean found in the current study ($M = 29.20$, $SD = 10.32$). The sample consisted of 57 males (37%), 96 females (62.3%), and 1 person who did not respond to the biological sex question.

**Procedures**

The purpose of the study was to measure the impact of humorous preflight safety briefings on passenger perceptions of flight attendants. Using the requirements for preflight briefings issued by the Federal Aviation Administration (2003) in Advisory Circular 121-24C, the researchers created a preflight briefing that would sound very typical across airlines today (Appendix A). This preflight briefing was then given to two professional flight attendants to ascertain the realism of the script. Both professional flight attendants agreed that the script was realistic. Once the realism of the standard preflight safety briefing was determined, a second script was also created injecting humor throughout the entire script (Appendix B). Furthermore, the biological sex of the flight attendant was also controlled in the experiment.

Participants were given one of four scripts (female standard, female humorous, male standard, or male humorous), and asked to read the script and then respond to a series of questions asking the participants to indicate their perceptions of the flight attendant who delivered the experimental script. Immediately after reading the script, the participants were asked to rate the script from “0” *not humorous* to “9” *very humorous*. An independent $t$-test was utilized to make sure the manipulation of the humorous script was effective. The independent $t$-test indicated that participants in the humorous script condition ($M = 4.31$, $SD = 3.07$) found the script more humorous than those in the standard script condition ($M = 2.23$, $SD = 2.57$); $t (144) = 4.46$, $p < .0005$, Cohen’s $d = .69$, which is considered a medium effect size (Green & Salkind, 2005). Overall, participants clearly indicated that the humorous script was more humorous than the standard preflight safety script.

**Instrumentation**

**Arousal.** The Arousal Scale was devised by Mehrabian and Russell (1974) and later validated by Holbrook et al. (1984) to examine how stimulated people feel during a specific situation or as a result of being exposed to a specific artifact. The scale consists of six oppositely worded adjective pairs (stimulated/relaxed, excited/calm, frenzied/sluggish, jittery/dull, wide-awake/sleepy, & aroused/unaroused) measured with seven steps with the range existing from 6 to 42, which was seen in the current study. The alpha reliability of the Arousal Scale was .84 ($M = 24.71$, $SD = 6.31$). Items are coded so that higher scores equate to higher levels of reported arousal.

**Rationality.** The Rationality Scale was devised by Elizabeth Hirschman (1986) to measure the utilitarian and rationality of a stimulus. The scale consists of five oppositely worded adjective pairs (logical/not logical, educational/not educational, informative/not informative, factual/not factual, & useful/not useful) measured with seven steps with the range existing from
5 to 35, which was seen in the current study. The alpha reliability of the Rationality Scale was .93 \((M = 23.71, SD = 7.65)\). Items are coded so that higher scores equate to higher levels of perceived rationality.

**Affective Learning** The Affective Learning instrument was designed by McCroskey (1994) to mimic the objectives of the affective domain of learning original discussed by Krathwohl, Bloom, and Masia (1956). The measure examines the level of affect a student has for the course, subject matter, teacher, recommended behaviors, the desire for further courses in the area, and actually taking courses in the subject area. Each aspect of affective learning is measured by four 7-item bi-polar scales with a range existing from 4 to 28, which was seen in both of the subscales used in the current study. For the purposes of the current study, only those items for affect towards content in the preflight briefing were kept and affect towards flight attendant. The alpha reliability for affect towards content in the preflight briefing was .90 \((M = 18.33, SD = 5.97)\), and the alpha reliability for affect towards flight attendant was .94 \((M = 17.77, SD = 6.23)\). Items are coded so that higher scores equate to higher levels of passenger affect.

**Liking.** The liking scale was devised by Bond, Chiu, and Wan (1984) and revised by Bresnahan, et al. (2002) to measure the degree to which a person likes another person. The scale consists of six oppositely worded adjective pairs (friendly/unfriendly, disagreeable/agreeable, pleasant/unpleasant, unkind.kind, unlikable/likable, & cold/warm) measured with seven steps with the range existing from 6 to 42, which was seen in the current study. The alpha reliability of the Rationality Scale was .94 \((M = 28.83, SD = 7.37)\). Items are coded so that higher scores equate to higher levels of liking.

**Credibility.** The Credibility Measure was designed by McCroskey and Teven (1999) to test an individual’s perception of a communicator’s credibility (competence, trustworthiness, & caring/goodwill). Since the original measure was designed to be used in a number of situations to examine a communicator’s credibility, the measure used in this study did not have to be retooled to examine passenger perceptions of flight attendant credibility. The measure is a series of eighteen oppositely worded adjectives with a seven step bi-polar scale that is broken into three factors with 6 items on each factor. Each factor has a range from 6 to 42, which was seen in this study. The alpha reliability for competence in this study was .92 \((M = 27.84, SD = 8.38)\); trustworthiness was .90 \((M = 27.18; SD = 7.68)\); and caring/goodwill was .93 \((M = 24.92; SD = 8.21)\). Higher scores indicated that a communicator was perceived as highly credible by her or his receiver.

**Data Analysis**

To analyze the study’s data in the most parsimonious way, a series of factorial univariate ANOVAs and MANOVAs will be conducted. The two factors being analyzed will be flight attendant sex (male vs. female) and preflight safety briefing script (standard vs. humorous), which will be used as the independent variables, and passenger’s reported levels of arousal, perceptions of the preflight safety briefings rationality, affect towards the content of the preflight briefing and flight attendant, liking of the flight attendant, and perceptions of the flight attendant’s credibility as the dependent variables.

**Results**

A Univariate Factorial ANOVA was conducted using flight attendant sex (male vs. female) and preflight safety briefing script (standard vs. humorous) as the independent variables and arousal as the dependent variable. Main effect results revealed that the humorous \((M = 25.19, SD = 5.74)\) and the standard \((M = 24.26, SD = 6.83)\) preflight safety briefing scripts did
not lead to differing levels of arousal among the participants, $F(1, 149) = .72, p > .05$. Main effect results did indicate a significant difference in participant arousal based on whether the flight attendant delivering the script was a female ($M = 23.33, SD = 6.35$) or male ($M = 26.26, SD = 5.93$), $F(1, 149) = 8.42, p < .005$, $\eta^2 = .05$. Lastly, the interaction between preflight safety briefing script and flight attendant biological sex was not statistically significant, $F(1, 149) = .24, p > .05$.

A Univariate Factorial ANOVA was conducted using flight attendant sex (male vs. female) and preflight safety briefing script (standard vs. humorous) as the independent variables and rationality as the dependent variable. Main effect results revealed that the humorous ($M = 21.96, SD = 7.69$) and the standard ($M = 25.42, SD = 7.25$) preflight safety briefing scripts led to differing perceptions of rationality by the participants, $F(1, 150) = 8.11, p < .005$, $\eta^2 = .05$. Main effect results also indicated a significant difference in participant rationality based on whether the flight attendant delivering the script was a female ($M = 26.05, SD = 7.43$) or male ($M = 21.12, SD = 7.07$), $F(1, 150) = 18.03, p < .0005$, $\eta^2 = .11$. Lastly, the interaction between preflight safety briefing script and flight attendant biological sex was not statistically significant, $F(1, 149) = .24, p > .05$.

A two-way MANOVA was conducted to determine the effect of flight attendant sex (male vs. female) and preflight safety briefing script (standard vs. humorous) on content affect and flight attendant affect. MANOVA results indicated that the humorous ($M = 17.37, SD = 6.32$) and the standard ($M = 19.27, SD = 5.48$) preflight safety briefing scripts did not significantly affect the combined DV of content effect and flight attendant affect, Wilks’ $\Lambda = .97$, $F(2, 149) = 2.23, p > .05$. However, MANOVA results indicated that the flight attendants’ biological sex significantly affected the combined DV of content affect and flight attendant affect, Wilks’ $\Lambda = .90$, $F(2, 149) = 8.16, p < .0005$; so univariate ANOVA post hoc tests were conducted. ANOVA results indicate that participants viewed their affect towards the content of the preflight safety briefing differently depending on whether the flight attendant was a female ($M = 20.10, SD = 5.61$) or male ($M = 16.36, SD = 5.72$), $F(1, 150) = 16.33, p < .0005$, $\eta^2 = .10$. ANOVA results also indicated that participants viewed their affect towards the flight attendant differently depending on whether the flight attendant delivering the preflight safety briefing was a female ($M = 19.33, SD = 5.95$) or male ($M = 16.03, SD = 6.10$), $F(1, 150) = 11.45, p < .0005$, $\eta^2 = .07$. Lastly, an interaction effect between script and sex was not statistically significant, Wilks’ $\Lambda = .99$, $F(2, 149) = 1.07, p > .05$.

A Univariate Factorial ANOVA was conducted using flight attendant sex (male vs. female) and preflight safety briefing script (standard vs. humorous) as the independent variables and liking as the dependent variable. Main effect results revealed that the humorous ($M = 28.37, SD = 7.30$) and the standard ($M = 29.28, SD = 7.46$) preflight safety briefing scripts did not lead to differing levels of flight attendant liking among the participants, $F(1, 150) = .45, p > .05$. Main effect results did indicate a significant difference in participant liking of the flight attendant based on whether the flight attendant delivering the script was a female ($M = 30.15, SD = 7.11$) or male ($M = 27.37, SD = 7.43$), $F(1, 150) = 5.46, p < .05$, $\eta^2 = .04$. Lastly, the interaction between preflight safety briefing script and flight attendant biological sex was not statistically significant, $F(1, 150) = 1.02, p > .05$.

A two-way MANOVA was conducted to determine the effect of flight attendant sex (male vs. female) and preflight safety briefing script (standard vs. humorous) on the three factors of perceived flight attendant credibility (competence, caring/goodwill, & trustworthiness). First, MANOVA results indicated that the preflight safety briefing script significantly affected the
combined DV of source credibility, Wilks’ Λ = .93, F (3, 146) = 3.71, p < .05; so univariate ANOVA post hoc tests were conducted. ANOVA results indicate that participants viewed the flight attendant who delivered the preflight safety briefing’s level of competence, F (1, 148) = 9.93, p < .005, η² = .06, and trustworthiness, F (1, 148) = 4.53, p < .05, η² = .03, differently based on the script they read, but not the flight attendant’s level of caring/goodwill, F (1, 148) = 2.91, p > .05. Means and standard deviations are located in Table 1. Second, MANOVA results indicated that the biological sex of the flight attendant delivering the preflight safety briefing significantly affected the combined DV of source credibility, Wilks’ Λ = .84, F (3, 146) = 9.11, p < .0005. ANOVA post hoc results indicate that participants viewed the flight attendant who delivered the preflight safety briefing differently based on the flight attendant’s biological sex on all three levels of credibility: competence, F (1, 148) = 20.09, p < .0005, η² = .12; caring/goodwill, F (1, 148) = 26.45, p < .0005, η² = .15; trustworthiness, F (1, 148) = 24.74, p < .0005, η² = .14. Means and standard deviations are located in Table 1. Lastly, an interaction effect between script and sex was not statistically significant, Wilks’ Λ = .99, F (3, 146) = .58, p > .05.

Table 1: Means for Source Credibility by Flight Attendant Sex and Preflight Safety Briefing Script

<table>
<thead>
<tr>
<th>Flight Attendant Biological Sex</th>
<th>Competence</th>
<th>Caring/Goodwill</th>
<th>Trustworthiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>30.49</td>
<td>6.95</td>
<td>27.81</td>
</tr>
<tr>
<td>Male</td>
<td>24.77</td>
<td>8.93</td>
<td>21.46</td>
</tr>
<tr>
<td>Script</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard</td>
<td>29.88</td>
<td>8.06</td>
<td>26.01</td>
</tr>
<tr>
<td>Humorous</td>
<td>25.71</td>
<td>8.28</td>
<td>23.65</td>
</tr>
</tbody>
</table>

Discussion

The findings of this study are clearly intriguing and definitely need to be examined as to their actual significance for communication research. To examine these findings, it is most prudent to examine the use of humor in preflight safety briefings and flight attendant biological sex separately, which will be followed by a discussion of the limitations and directions for future research.

Humor in Preflight Safety Briefings

As a whole, the results for the preflight safety briefings are quite intriguing and contrary to previous research that has examined the use of humor in various contexts. Humorous preflight safety briefings were not found to be more arousing, but were perceived as less rational; resulted in less content and flight attendant affect; resulted in lower levels of participant liking of the flight attendant; and lower levels of perceived flight attendant credibility. These results are contrary to the predictions made in this study. One may think that the manipulation in the study possibly had not occurred, but the independent t-test used to test manipulation did find that the study participants found the humorous script significantly more humorous than the standard script. However, the effect size was only medium, but even at a medium effect people clearly found the humorous script funny. So why then would the participants find the script humorous, but react more favorably to the standard script? Two theoretical lines of thought will be
discussed to explore methodologically why the results could occur, and one theoretical line of thought will be discussed to explore how these results could be generalized to the real world.

First, Attardo (1994) in his text *Linguistic Theories of Humor* puts forth the notion of canned versus conversational joking. Canned jokes are jokes that are created jokes that can be used in a variety of contexts without regard of the actual situation where the joke is used; whereas, conversational jokes are jokes that are inherently situationally based and do not transfer easily to other communicative contexts. The jokes utilized in this study were designed to be conversationally based, but presented in a canned, non-organic manner. A conversational “joke that hinges on a very situational-specific element will be (nearly) impossible to use outside of that situation. The only strategy available to the speaker is to try and reconstruct the situation verbally …, so as to make the situational joke exportable to another context” (Attardo, 1994, p. 297). While the humor used within the scripts in this study was designed as conversational, the research context is realistically more canned than situationally based. While the humorous script was intended to be read as conversational, reading humorous jokes is highly decontextualized. Furthermore, the humor used in the preflight safety briefing was designed to mimic conversational patterns, but Attardo (1994) notes that read jokes are read as singular instances of joking, which is more similar to canned jokes; whereas, conversational jokes “often build on previous jokes and seem to acquire an extra degree of funniness by doing so” (p. 299). In essence, it is theoretically plausible that the reaction to the scripts in this study has less to do with the humor used than it does with the manner in which the jokes were presented in this study through the read scripts.

A second theoretical reason for the contrary results surrounding the humorous preflight safety briefing scripts in the current study could be due to the lack of a shared experience. Humor, as it exists in actual preflight safety briefings, like those seen on Southwest Airlines, is a shared experience had by many; where as, the scripts read in this study were individualized experiences. Previous research summarized by Sheehy-Skeffington (1977) noted the impact on humor caused by other people’s laughter. Basically, the sound of other people’s laughter has been shown to increase the mirth experience and the impact humor has on people. Sheehy-Skeffington theorizes that “laughter serves as a situational cue, conditioning the listener to search for a humorous interpretation of the material” (p. 448). Furthermore, Chapman (1996) noted that humorous artifacts presented within a group situation are considerably more arousing than when presented to an individual in isolation. As Provine (2000) notes, “The ability of laughter to elicit contagious laughter raises the intriguing possibility that humans have an auditory laugh-detector – a neural circuit in our brain that responds exclusively to laughter” (p. 149). Not only do people respond to laughter in a clear fashion, the actual act of laughing also has neurological functions, specifically the release of various neuropeptides, including endorphins, and the neurotransmitter serotonin (McGhee, 1999). In essence, the actual act of laughing alters the neurological state, which could in turn alter how someone views the humorous artifact. Overall, the shared experience of humor is extremely important, and since this study relied on textual based scripts, there really was not a shared experience, which could be a causative factor of the results seen in this study.

The last theoretical perspective that could explain the nature of the results seen in this study stems out of the notion of the preflight safety briefing context. The current study was conducted on post 9-11 air travel. As Sparks, Kreps, Botan, and Rowan (2005) note, “Terrorism, not surprisingly, has become a significant topic in crisis management, academe, industry, and in our communities” (p. 1). People in the United States feel the aftermath of 9-11 every time they
fly because of the new heightened security standards at the nation’s airports. 9-11 could be an event that is seen as non-joking event, and humor in the preflight safety briefing could be seen as frivolous and inappropriate by many passengers. Lundgren and McMakin (2004) warn risk communicators to avoid using humor during risk communication because it is seen as insensitive. In the same way, flight attendants are essentially communicating the possibility of air travel risk and what actions to take if a crisis occurs. Based on this notion, it is theoretically plausible then that the preflight safety briefing is a context where passengers simply do not perceive the humor as appropriate.

**Flight Attendant Biological Sex**

The second category of results examined in this study relates to the impact that a flight attendant’s biological sex had on the study dependent variables. The results in this study indicated that passengers perceived male flight attendants to be more arousing, but participants viewed female flight attendants were more rational, more affective (both personally and in the preflight safety briefing content), more likeable, and more credible. Based on the understanding that eta-squared should be interpreted as either small (0.01), medium (0.06), and large (0.14) (Cohen, 1988), there was a minimal effect for arousal; a moderate effect for rationality, content affect, flight attendant affect, liking, and competence; and a large effect for caring/goodwill and trustworthiness. In essence, participants in this study clearly perceived the female and male flight attendants differently as a result based on nothing more than being given a biological sex and the flight attendants name (Amy or Fredrick). In fact, there appears to be a very clear discriminatory position taken by the participants in this study that favors female flight attendants and devalues male flight attendants.

These findings actually reinforce the notions from Gamble and Gamble (2003) that minority individuals in sex-segregated professions, or as Young and James (2002) labeled male flight attendants as the “token majority,“ struggle to be taken seriously as fully participating workers. One possible reason for why male flight attendants are not valued as highly as female flight attendants could be because male flight attendants violate Hochschild’s (1983) notions of middle class heterosexuality. In essence, there is this myth in the general public that females should be flight attendants while males should be pilots (Mills, 1995), and as Judith Butler (2004) reasoned, people who violate the heterosexual myth are seen as deviants not to be trusted. Or in the case of male flight attendants, people generally reason that they must be gay (Lock & Kleis, 1998; Patel & Long, 1995). Based on research concerning people in the United States’ overarching homonegativity, finding that people would automatically view men who they perceive as violating heterosexual norms by being flight attendants would be subject to scorn and ridicule or at least be perceived as untrustworthy. These results are similar to the findings of Mottet (2000) who found that people predicted higher outcome values, higher levels of communication, and higher levels of liking when a target was explicitly labeled as heterosexual than when the target was explicitly labeled as homosexuality. Since there is this overarching stereotype that male flight attendants are gay, the current study’s findings may be viewed as an extension of the findings of Mottet (2000).

**Limitations**

This study has a number of limitations that need to be examined. First, the study relies on scripted scenarios for the experimental design employed. While the read scripts cannot be completely blamed for the lack of findings related to humor, as discussed earlier, the reading of humor is distinctly different than witnessing humor as a shared experience. The results in this
study related to humor could be an outcome of the method, and not the actual impact of humor during preflight safety briefings.

Second, the study relied on college students and not people sitting in a realistic airline environment. While the college students employed in this study are older than traditional age college students, this study still depended on students in an educational environment and not passengers on an actual airplane.

Lastly, based on the questions asked in the current study, there really is no way to ascertain if people in the study actually viewed male flight attendants as gay men. While previous literature has suggested that passengers assume male flight attendants are gay (Williams, 2003; Young & James, 2002), without questioning the participants’ perceptions of male flight attendants as a group, we are basing our analysis of these findings not on concrete fact but on theoretical relationships that may not exist.

Future Research

First, future research in the area of humor in preflight safety briefings should compare read scripts, video taped enactments of scripts, and live enactments of scripts. While it is suspected that there is a difference between the three, the only way to know for sure would be to compare the delivery of the three methods. This information would be useful for future experimental designs examining humor.

Second, ideally, this study should be replicated in an actual airline situation with real flight attendants not using fabricated scripts. While the humorous script was perceived as more humorous than the standard script in this study, the script was still considerably more canned and less conversational because of the nature of the study. Furthermore, future research should survey actual airline passengers. While this research would probably be more survey design than experimental, real survey data form actual passengers would be considerably more valid and generalizable than experimental designs in a contrived college classroom.

Lastly, future research examining the differences between female and male flight attendants should examine people’s perceptions of both female and male flight attendants’ sexuality. These perceptions of sexuality could then be used to determine if it is the stereotyping that causes female flight attendants to be more valued than male flight attendants, or some other intervening variable. Furthermore, controlling for a participants’ level of homonegativity and ethnocentrism could also be very telling.

Conclusion

In 2005, 745.7 million passengers flew on both domestic and international flights from the United States, a 4.6 percent increase from the previous year (Smallen, 2006). As more and more passengers fly, the numbers of in-flight emergencies naturally increase (NTSB, 2000). As airlines, the NTSB, and the FAA look to find out how to increase passenger awareness of in-flight safety procedures, two variables that appear to be relevant to this discussion based on the findings in this study are humor use during the preflight safety briefing and the biological sex of the flight attendant who delivers the preflight safety briefing. While the current project hopes to initiate a new line of research for communication scholars examining cabin crew-passenger communication, the results of the current project are mixed. If the preflight safety briefing had been more thoughtfully delivered on Airbus flight 320, maybe 95 percent of the passengers would not have expressed a lack in confidence about in-flight safety procedures.
References
Creative methods may be the answer to improving passengers’ attention to safety briefings before take-off. (2001, July/August). *Flight Safety Australia, 5* (4), 36-37.
Laughing Before Takeoff


Appendix A
Preflight Safety Briefing (Standard)

Instructions: Please read the following pre-flight briefing given by a female (male) flight attendant prior to the take-off of the aircraft.

Hello and welcome aboard flight 475 with nonstop service to LAX, my name is Amy (Fredrick) and I would like to welcome you aboard Generic Airlines.

Before we begin our flight today, Generic Airlines would like you to be aware of the following safety instructions:

To fasten your seatbelt please press both ends of the buckle together until you hear the click, and pull on the strap to tighten. Your seatbelt should be snug against your waist while seated. To unfasten your safety belt, lift up on the seatbelt buckle. Once we reach our cruising altitude the captain will turn off the fasten seatbelt light and you are free move about the cabin. However, please keep your seatbelt fasten at all times while seating. In case of turbulence, the captain will turn on the fasten seatbelt light, and you will need to refrain from moving about the cabin. Please notice that the fasten seatbelt light is currently on and will stay lit through both takeoff and landings. During take offs and landings please refrain from using portable electronic devices. Once we are in the air, the captain will signal when it’s safe to use portable electronic devices.

To see a list of approved electronic devices, please see page 76 of the in-flight magazine located in the seatback pocket in front of you.

Our emergency exits are located in row one, sixteen, and twenty-three. During an emergency landing, guide lights will help you find the nearest emergency exit. If you are seated in an exit row, please review the safety card located in the seatback in front of you concerning the requirements and responsibilities of sitting in an exit row. If you do not meet the requirements or do not feel comfortable meeting the responsibilities, please inform a member of the flight crew to be moved to a non-exit row seat.

In the event of a water landing, your seat cushions may be used as a flotation device. If our aircraft should loose cabin air pressure, oxygen masks will deploy from the ceiling. Place the oxygen mask firmly on your head, pull on the straps to tighten the mask, and then breathe naturally. If you are traveling with small children, please place your oxygen mask on first before trying to assist others. Once again, please review the safety card located in the seatback in front of you for further information about our emergency procedures.

As per Federal Aviation Administration regulations, this is a non-smoking flight, so smoking is strictly prohibited aboard our aircraft. Tampering with, disabling, or destroying smoke detectors in the airplane or lavatories is punishable under Federal Law. Once you have exited our aircraft and entered into the airport terminal, you may smoke in designated smoking areas only.

When it comes to flying, we know that you have a choice, and thank you for choosing to fly with Generic Airlines. We hope you enjoy your flight. If there is anything our flight crew can do to make you more comfortable please let them know. We will be departing shortly.
Appendix B
Preflight Safety Briefing (Humorous)

Instructions: Please read the following pre-flight briefing given by a male (female) flight attendant prior to the take-off of the aircraft.

Hello and welcome aboard flight 574 with nonstop service to the arctic circle… no, sorry, wrong airplane… Welcome aboard flight 475 with nonstop service to LAX, my name is Fredrick (Amy) and on behalf of our flight crew and recent Microsoft Flight School grad captain Earhart, no relation so don’t worry, I would like to welcome you aboard Generic Airlines.

Before our flight today, please be aware of the following safety instructions:

If you were fortunate enough to be seated in a seat equipped with a safety belt please press both ends of the buckle together until you hear the click to fasten your seatbelt, and pull on the strap to tighten. Your seatbelt should be snug against your waist while seated. To unfasten your safety belt, lift up on the seatbelt buckle. Once we reach our cruising altitude the captain will turn off the fasten seatbelt light and you are free to move about the cabin. However, in the event of a midair collision, please keep your seatbelt fasten at all times while seated. In case of turbulence, the captain will turn on the fasten seatbelt light, and you will need to return to your seat and refrain from shouting expletives. Please notice that the fasten seatbelt light is currently on and will stay lit during takeoffs and landings. During takeoffs and landings please refrain from using portable electronic devices, especially devices that are necessary for your entertainment or business use. Once in flight, the captain will signal when it’s safe to use portable electronic. To see a list of approved electronic devices, please see page 10,076 of the abbreviated in-flight handbook located in the seatback pocket in front of you.

Our emergency exits are located in row one, sixteen, and twenty-three. The exit in row twenty-nine was done away with after the plane’s accident and a new shorter tail section was attached. During an emergency landing, guide lights will help you find the nearest emergency exit. If you are seated in an exit row, please review the safety card located in the seatback in front of you concerning the requirements and responsibilities of sitting in an exit row. If you do not meet the requirements or do not feel comfortable meeting the responsibilities, please inform a member of the flight crew to be moved to a non-exit row seat. You should know the survival rate of passengers sitting in an exit row is just as good as any other passenger on the plane.

In the event of a water landing, your seat cushions may be used as a flotation device. If our aircraft should loose cabin air pressure, oxygen masks will deploy from the ceiling. Place the oxygen mask firmly on your head, pull on the straps to tighten the mask, and then breathe naturally. If you are traveling with small child, or someone acting like a child, please place your oxygen mask on first and assist your favorite child next. Once again, please review the abbreviated in flight handbook located in the seatback in front of you for further information about our emergency procedures.

As per California emission laws, this is a non-smoking airplane, so smoking is strictly prohibited aboard our aircraft. Tampering with, disabling, or destroying smoke detectors in the airplane or
lavatories is punishable under Federal Law. Once you have exited our aircraft and entered into the airport terminal, you may smoke in designated smoking areas only, breathe un-recycled air, and/or pay ridiculous prices for any item you may have forgotten to pack.

When it comes to flying, we know that you have a choice, and thank you for choosing to fly with Generic Airlines despite our safety record. We hope you enjoy your flight. If there is anything our flight crew can do to make you more comfortable please let them know. Please note we are presently out of pillows, blankets, and we will be unable to make any seating changes as it is a hassle. We will be departing shortly. Thank you.