The "speech anxiety peak experience" is the time during the speech event when the most anxiety is felt. A study tested the hypothesis that speakers would report higher communication anxiety levels at the beginning of the speech event rather than at the middle or end of the presentation. A Communication Apprehension Graph (CAG) was developed to record speaker anxiety levels over time for one speaking occasion. The subjects, 103 students enrolled in a basic course in public speaking, were asked to complete the CAG immediately after their third assigned speech in the course. An analysis procedure was used to provide a visual comparison of speaker apprehension levels during different points in the speech occasion. Results showed that communication apprehension ratings were at their highest immediately before and during the first two minutes of the speech itself. Also, females reported significantly higher apprehension levels than males, although both groups had similar apprehension patterns over time. (HOD)
COMMUNICATION APPREHENSION AND THE SPEECH ANXIETY PEAK EXPERIENCE

by

Winifred Brownell and Richard Katula

University of Rhode Island

Many of us have had an experience—something like the following. We are asked to conduct a workshop for a group of managers which will help them improve their public speaking ability. When we survey the needs of the group we find that the most serious problem is communication apprehension. We also discover that skills-based instruction, focused on rhetorical principles of public speaking, does relieve anxiety somewhat, but does not address the problem directly. We are confronted with speech anxiety, the ghost that haunts alone.

In 1977, James McCroskey asserted that speech communication research had produced very few methods for treating speech anxiety. A recent article by Susan R. Glaser attempts to "establish the foundation for such research by describing and evaluating the current status of treatment for oral communication apprehension and avoidance." In her essay, Glaser summarized the three major models for assessing and treating oral communication apprehension: systematic desensitization, cognitive modification, and skills training.

The subject matter of this paper most appropriately fits into the category of cognitive modification, a form of treatment for communication apprehension that is seldom described in detail in our literature. Cognitive modification is a form of treatment which helps individuals think more positively about the public speaking situation. In this paper is introduced what we call, "the speech anxiety peak experience," which we have used to help individuals assess the speaking situation realistically, and then cope with the situation directly.

Identifying the Speech Anxiety Peak Experience

The problem with much of the literature on speaking anxiety is that it fails to distinguish among the significant moments of the total speech situation. Most of us are aware of the fact that speech anxiety is not a constant phenomenon of the situation; rather, it changes as the situation progresses. Most often, anxiety changes from those teeth rattling moments just prior to the speech to those tranquil seas of the question-answer session. We believe it is vitally important to identify these various points in the speech event.

While the literature on speech anxiety does not discriminate among moments of the total speech experience, neither do most speakers. When we think about that speech we have to give tomorrow or next week we think about the entire event, usually in a negative way. Incidentally, the same holds true for writing situations in which we think negatively about the entire composing process rather than on the worst part, usually getting started.

The "speech anxiety peak experience," is the time during the speech event when we feel the most anxiety. We assumed earlier in this essay that the peak anxiety moment is just prior to the speech itself. But is this an accurate assumption? Although experience tells us that it is, we designed a pilot study* to test the hypothesis that speakers will

---

*This study is intended as a pilot study. We used student speakers for our data, and while we have collected data from managers which looks similar to our student data, the base is not large enough for evaluation.
report higher communication anxiety levels at the beginning of the speech event rather than at the middle or end of the presentation. It was our belief that if we could find levels of anxiety at various moments of the presentation, we could use this information to help others cope with their speaking anxiety. Since this research was intended to be exploratory, we also decided to determine if gender and age were related to speaking anxiety levels. Pretests of our measuring instrument suggested that females and younger speakers tended to report higher levels of anxiety.

A. Method

1. Subjects

One hundred and three students enrolled in a multiple-section basic course in public speaking served as subjects for this pilot study. The students, 50 males and 53 females, ranged in age from 18 to 28 years. They came from diverse backgrounds and had varying experiences with public speaking. At the time of the data collection, all subjects had presented at least three speeches.

2. Communication Apprehension Measure

A Communication Apprehension Graph (CAG) was developed to record anxiety levels over time for one speaking occasion (see Figure 1). The CAG vertical axis consists of a seven point scale from 1 = no anxiety to 7 = very high anxiety. The horizontal axis identifies points during a speaking occasion from A = immediately prior to the speech to E = the question and answer period. To complete the CAG, subjects marked their apprehension level for the five different times and connected the marks into a line. The response graphed the individual's communication apprehension over time reflecting any change in apprehension level which might occur. Prior to this study 25 students were given the PRPSA (Personal Report of Public Speaking Anxiety) and the CAG. Their PRPSA apprehension level and initial CAG levels agreed for .96 percent of the cases.

3. Data Collection

Subjects were asked to complete the CAG immediately after their third assigned speech in the course. Communication apprehension was discussed only as a general concept prior to data collection and no suggestion was made to the subjects that apprehension levels might change over time. The CAG was administered during a regularly scheduled class period and discussed with the subjects after all CAG forms were collected. All subjects completed the PRPSA as part of their course activities before this study began. Most students had moderate to high PRPSA apprehension scores.

4. Analysis Procedures

The SPLOT procedure described by Gerig and developed by Tukey was used to provide a visual comparison of apprehension levels during different points in the speech occasion. A univariate analysis of variance was performed to test the main hypothesis.
Instructions: We would like you to think about the last speech you presented for this class. Think particularly about the speech anxiety that you experienced. We would like you to describe this anxiety with the help of the graph given below. On the vertical axis at left below are terms describing speech anxiety from "No Anxiety" or "1" to "Very High" or "7." On the horizontal axis below right are terms prior to, during and after a speech presentation. Graph the amount of anxiety you felt by making an x at each of the points A to E. Now connect the x's with a line.

Very High
High
Moderately High
Moderate
Moderately Low
Low
No Anxiety

A B C D E
Immediately Prior to Speech
Introduction (First 1-2 Minutes of Speech)
Body of Speech (Middle of Speech)
Conclusion (Final 1-2 Minutes)
Question & Answer Period (Immediately following speech)
B. Results

The major hypothesis, predicting a significant difference in communication apprehension ratings at five different points in the speech occasion, was confirmed (see Table 1). The means and standard deviations indicate that communication apprehension ratings are at their highest immediately before and during the first two minutes of the speech itself (see Table 2). A more vivid picture of the changing apprehension ratings is portrayed in the schematic plot produced by the SPLOT procedure (see Figure 2).

A Split-Plot ANOVA, useful for analyses of repeated measurements, was also performed to test the major hypothesis and the two secondary predictions regarding the effects of sex and age (see Table 3). Each time the subject reported an apprehension level for points A-E was counted as one observation in the analysis. Thus each subject had five observations for analysis. A SPLOT was also produced for the apprehension patterns by sex (see Figure 3). The means and standard deviations by sex indicate that females reported higher apprehension levels than males, although both groups have similar apprehension patterns over time (see Table 4).

Unfortunately it was not possible to approach equal cell size for age groups. The subject cell frequencies ranged from 56 people who were 18 years of age, to only one person who was 28. Although the age effect resulted in a significant difference, the unusual distribution of people over age levels makes the interpretation difficult and potentially misleading. Thus, means, standard deviations and SPLOT results for age will not be examined.

C. Discussion

This study investigated communication apprehension at five different points in time during one speech occasion. It was predicted that apprehension was a phenomenon which changed over time during a single speech occasion. Specifically it was hypothesized that speakers would report higher communication apprehension ratings at the beginning than at the middle or end of the presentation.

The general prediction and specific hypothesis were clearly supported by the data analysis. As we noted earlier, most of the communication apprehension research describes speaking anxiety as if it is a constant, subject only to change after specific remediation or corrective training strategies. The results of this pilot study suggest that a person's report of his/her communication apprehension level changes at different points in the speech occasion reflecting his/her response to the changing demands of the situation.

Although the communication apprehension research reports mixed results regarding differences in apprehension level by sex, the results of this study reveal that females report significantly higher apprehension levels than males. It is interesting to note that both females and males have relatively similar apprehension patterns over time, despite their level differences.
Plot of Communication Apprehension Ratings Over Time

FIGURE 2
Figure 3: Plot of Apprehension Ratings by Sex Over Five Points in Time

- Males
  - A=Prior
  - B=Introduction
  - C=Body
  - D=Conclusion
  - E=Question/Answer Period

- Females
  - A=Prior
  - B=Introduction
  - C=Body
  - D=Conclusion
  - E=Question/Answer Period

A=Prior, B=Introduction, C=Body, D=Conclusion, E=Question/Answer Period

---

**Median, + = Mean, 0 = Outside Values, * = Detached Values**

- **A**
  - 1.00
  - 2.00
  - 2.00
  - 1.00
  - 1.00

- **B**
  - 1.00
  - 1.00
  - 0.00
  - 2.00
  - 2.00

- **C**
  - 2.00
  - 1.00
  - 2.00
  - 1.00
  - 2.00

- **D**
  - 1.00
  - 2.00
  - 2.00
  - 2.00
  - 1.00

- **E**
  - 1.00
  - 2.00
  - 2.00
  - 2.00
  - 1.00

---

**Plot of Apprehension Ratings by Sex Over Five Points in Time**
### TABLE 1

Univariate ANOVA of Communication Apprehension Ratings at Five Different Periods in a Speech Occasion

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech period</td>
<td>546.038</td>
<td>4</td>
<td>8.603</td>
<td>125.15</td>
<td>.0001</td>
</tr>
<tr>
<td>Subject</td>
<td>387.052</td>
<td>102</td>
<td>3.48</td>
<td>.0001</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>445.026</td>
<td>403</td>
<td>1.091</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1378.116</td>
<td>514</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N=103

### TABLE 2

Means and Standard Deviations for Communication Apprehension Ratings at Five Different Periods in a Speech Occasion

<table>
<thead>
<tr>
<th>Speech Period</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior (Immediately before Speech)</td>
<td>5.267</td>
<td>1.334</td>
</tr>
<tr>
<td>Introduction of Speech (First 1-2 Minutes)</td>
<td>5.274</td>
<td>1.193</td>
</tr>
<tr>
<td>Body of Speech (Middle of Presentation)</td>
<td>4.072</td>
<td>1.154</td>
</tr>
<tr>
<td>Conclusion (Last 1-2 minutes of Speech)</td>
<td>3.577</td>
<td>1.310</td>
</tr>
<tr>
<td>Question/Answer (Immediately following speech)</td>
<td>2.584</td>
<td>1.381</td>
</tr>
</tbody>
</table>
### TABLE 3

Split-Plot ANOVA of Communication Apprehension Ratings at Five Different Periods in a Speech Occasion by Sex and Age

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>20.769</td>
<td>1</td>
<td>19.78</td>
<td>.0001</td>
</tr>
<tr>
<td>Age</td>
<td>44.671</td>
<td>6</td>
<td>7.09</td>
<td>.0001</td>
</tr>
<tr>
<td>Age*Sex</td>
<td>321.612</td>
<td>95</td>
<td>3.22</td>
<td>.0001</td>
</tr>
<tr>
<td>Speech Period</td>
<td>546.038</td>
<td>4</td>
<td>130.01</td>
<td>.0001</td>
</tr>
<tr>
<td>Sex*Speech Period</td>
<td>6.642</td>
<td>4</td>
<td>1.58</td>
<td>.1/86</td>
</tr>
<tr>
<td>Age*Speech Period</td>
<td>49.401</td>
<td>24</td>
<td>1.60</td>
<td>.0376</td>
</tr>
<tr>
<td>Age<em>Sex</em>Speech Period</td>
<td>19.987</td>
<td>20</td>
<td>.95</td>
<td>.5213</td>
</tr>
<tr>
<td>Error</td>
<td>377.997</td>
<td>360</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1378.116</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N=103

### TABLE 4

Means and Standard Deviations for Communication Apprehension Ratings for Males and Females at Five Different Periods in a Speech Occasion

<table>
<thead>
<tr>
<th>Speech Period</th>
<th>Males Mean</th>
<th>Females Mean</th>
<th>Males S.D.</th>
<th>Females S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior (Immediately before speech)</td>
<td>5.08</td>
<td>5.44</td>
<td>1.35</td>
<td>1.31</td>
</tr>
<tr>
<td>Introduction (First 1-2 minutes of speech)</td>
<td>5.19</td>
<td>5.35</td>
<td>1.16</td>
<td>1.23</td>
</tr>
<tr>
<td>Body (Middle of speech)</td>
<td>3.99</td>
<td>4.15</td>
<td>1.08</td>
<td>1.23</td>
</tr>
<tr>
<td>Conclusion (Last 1-2 minutes of speech)</td>
<td>3.25</td>
<td>3.88</td>
<td>1.27</td>
<td>1.28</td>
</tr>
<tr>
<td>Question/Answer (Immediately After Speech)</td>
<td>2.23</td>
<td>2.92</td>
<td>1.23</td>
<td>1.44</td>
</tr>
</tbody>
</table>

(N=50 males and 53 females)
The preliminary findings of this study suggest important implications for education and training of individuals to cope with communication apprehension. If cognitive modification is to be effective in the reduction of communication apprehension, the individual speaker might be helped by examining his/her pattern of communication apprehension, and focusing directly on coping with the demands of the speech occasion when apprehension is reported to be highest.

The Speech Anxiety Peak Experience and Cognitive Modification

In fact, once the group or the individual has recognized the speech anxiety peak, they have already begun to think more positively about the experience. A common response from seminar participants is something like the following self-evaluation turned in by a member of one group:

"One aspect of public speaking that I feel I can handle better is pre-speech stress. Particularly helpful was the idea of allowing yourself to be nervous, while telling yourself that it will dissipate as soon as the speaking begins. Every time I get up in front of the group, I feel more comfortable than the time before. My pre-speech anxiety level decreased a great deal."

So, the first step in modifying speaking anxiety is to recognize that most of it will occur just prior to the speech and during those first few moments of the speech itself. If we can get off to a good start, our anxiety level will probably level off, may decrease, or actually go away.

The second step in cognitive modification based on the speech anxiety peak experience is to concentrate on the decrease in anxiety that will occur, and learning to cope with the stress that will occur at the beginning of the speech. There are, of course, a number of coping strategies, some time worn, some relatively new, for getting through the beginning of a speech:

The old saw, for instance, about memorizing the introduction, will work for some. For others, a familiar story, a personal experience, or a humorous anecdote, will get them off to a good start. Using visual aids can work to get the speaker started, but visuals are usually related to the body of the speech, and may seem out of place in the introduction. One strategy to avoid, is reading the introduction since it negates that essential bond between speaker and audience which results in eased tensions later in the speech.

As for those frenzied moments just prior to the speech, our experience is to keep telling oneself that the anxiety will go away once the speech has progressed for a moment or two. In addition, we follow the advice of experts and keep our mind on the goal of the presentation: that is, we think most about what we hope to achieve, and that also seems to help."
Conclusions

The goal of this study was to begin to explore the pattern of communication apprehension over different points in time for a single speech occasion. More rigorous research must be conducted to study the phenomenon in depth. Subjects might be pretested and grouped according to PRPSA-scores to determine if communication apprehension level changes over time for high, moderate, and low apprehensives. Individual characteristics such as sex, age, speaking experiences, and types of speaking occasion also might be examined. The effects of measuring apprehension patterns as a part of appropriate cognitive modification training might be tested to determine if communication apprehension levels would decline. Although we often discuss communication apprehension as if we experienced it at one level throughout a speech occasion, this study suggests we should reexamine our assumptions.

References


