1989

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Recommended Citation

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The Effects of an Instructor's Use of Hesitation Forms on Student Ratings of Quality, Recommendations to Hire, and Lecture Listening

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ABSTRACT

This study examined the impact of instructor use of hesitation forms ("uh," "ah," "um," and "well") in an initial encounter with students on three measures of teaching effectiveness: student ratings of teacher quality, student recommendations to hire, and lecture listening. The introduction of any amount of hesitant speech significantly lowered instructor effectiveness as measured by each dependent variable. Generally, the use of higher frequencies of hesitation forms was more damaging than the use of lower frequencies. The findings of this study suggest that the use of other forms of powerless language may also detract from teacher effectiveness.

In higher education, few questions are as important as the question of what makes an instructor either effective or ineffective. Faculty have a vested interest in determining what constitutes "good teaching" since many hiring and promotion decisions are based in large part on teaching performance. Identifying those communication behaviors which characterize quality instruction has taken on added significance in light of the Carnegie Commission for the Advancement of Teaching's call for

¹ Drs. Johnson, Vinson, and Hackman are Assistant Professors and Mr. Hardin is a M.A. candidate. The authors want to thank James Tolheizen for providing the lecture that served as the stimulus for this project. A version of this paper was presented at the 1988 S.C.A. Convention in New Orleans.

renewed emphasis on undergraduate instruction in American colleges and universities (Boyer, 1987).

Although it has not been examined in the pedagogical context, the powerful/powerless speech construct could provide additional insights into what is effective or ineffective communication behavior in the classroom. Powerful talk (generally operationalized as speech that does not include powerless language) generates high power and dominance ratings for users, while powerless language use types speakers as powerless and submissive (Bradac & Mulac, 1984a; Johnson & Vinson, 1987a; Warfel, 1984).

Forms of powerless language include hesitations ("uh," "ah," "well" and "um"), hedges/qualifiers ("kinda," "I guess"), "you knows," tag questions ("It sure is a nice car, isn't it?"), deictic phrases ("over here") and disclaimers ("Don't get me wrong, but") (Johnson, 1987). Powerful speech has been linked to higher credibility and effectiveness ratings in formal settings such as the courtroom (Erickson, Lind, Johnson & O'Barr, 1978; Conley, O'Barr & Lind, 1978; Lind & O'Barr, 1979; O'Barr, 1982), the budget hearing (Johnson & Vinson, 1987a), the job interview (Bradac & Mulac, 1984a) and the crisis intervention context (Bradac & Mulac, 1984b).

Research linking powerful/powerless speech with credibility and effectiveness ratings in other situations can be used to predict effects in the pedagogical context only insofar as the two contexts are comparable. Therefore, this question of similarities must be addressed. Bradac and Mulac (1984a) noted that the perceived intention of the communicator is a key to determining whether powerless language use has a negative impact. Specifically, Bradac and Mulac (1984 a) found that forms of powerless language were most harmful when the communicator's intention was perceived as authoritative as opposed to social. Previous investigations into powerful/powerless talk have focused on formal settings; e.g., courtroom, budget hearing, job interview and crisis intervention. In each of these contexts the communicator's perceived intention is, arguably, to be authoritative. In the pedagogical context, especially when candidating for a job, the intent is also to be authoritative. The effect of powerless talk in a pedagogical situation then, might be expected to mirror those results noted in other formal settings.

This study examined the impact of instructor use of hesitations on three measures of effectiveness: student ratings of instructor quality, student recommendations to hire and lecture listening. Limiting the type of powerless language use employed to hesitations is warranted for two reasons. First, this approach allows that the effects of a specific language

feature be isolated. Currently, two approaches to the study of powerless language can be defined. Some researchers use several forms of powerless language in experimental designs which do not allow for isolation of individual effects (e.g., Bradac & Mulac, 1984b; Johnson & Vinson, 1987a). While this approach may most closely reflect real life situations, Bradac and Mulac, (1984a) point out that it also confounds the effects of individual forms of powerless language. That is, if hesitations and hedges are used together the noted effects may be due entirely to only one of them. Thus, a form of language may be incorrectly identified as being powerless. This effect is particularly problematic when studying powerless forms in new contexts because a language feature may be powerless in one context and not powerless in another. To prevent the mislabeling of language features, Bradac and Mulac (1984a) suggest that powerless language forms be studied using designs which isolate the effect(s) of each form; a molecular approach.

Secondly, hesitations were chosen rather than another powerless language feature because they have been found to be the most often used form of powerless language (Erickson, Lind, Johnson, & O'Barr, 1978; Johnson & Vinson, 1987b) as well as one of the most harmful types of powerless talk (Bradac & Mulac, 1984a; Johnson & Vinson, 1987c). While it is important to know the effect of each powerless language form in the pedagogical context, examination of hesitation use seems a reasonable starting place.

Rationale

At many institutions, students' evaluations of their instructors serve as the primary measure of teaching effectiveness. Although the use of student evaluations to determine effectiveness is controversial, these instruments often play a major role in promotion and retention decisions. For this reason, student ratings of instructor quality served as the first dependent measure in this experiment. Prior research studies dealing with nonfluencies, which have examined the hesitation forms "ah" and "uh" along with other speech features like sentence corrections, stutters and repetitions, suggest that the more frequently an instructor uses hesitant language, the lower will be his/her student evaluation scores. Miller and Hewgill (1964), and Sereno and Hawkins (1967) found that higher levels of nonfluencies led to corresponding drops in competence and dynamism ratings. The results generated by this pair of studies suggest the following hypothesis related to instructor use of hesitation forms in the classroom.

Hypothesis 1: Student ratings of an instructor's competence and dynamism will decline as he uses more hesitations in an informative lecture.

The second measure of effectiveness employed in this investigation was student recommendations to hire. In the authors' experiences university hiring decisions are often based, in part, on a guest lecture delivered during an interview visit. On many occasions, students are asked to give feedback as to the effectiveness of the candidate's presentation and to indicate whether they think the applicant is suitable for a position. These comments can play a role in the hiring decision. In a very real sense, the candidate is "on trial" as she or he attempts to generate the desired "verdict" from students. Viewed this way, the applicant shares many characteristics in common with the witness in court. In order to be successful, both witness and instructor must make an effective initial impression on those who have the power to either give or deny rewards. Since powerfully speaking witnesses in the courtroom and in related settings have been found to be more credible (Erickson et al., Conley et al., 1978; Lind & O'Barr, 1979; O'Barr, 1982) and persuasive (Johnson & Vinson, 1987a) than their powerless counterparts, this suggests that students will be more likely to recommend hiring the guest lecturer who uses straightforward speech rather than hesitant talk. Therefore, the following hypothesis was formulated.

Hypothesis 2: Students will be less likely to recommend that an instructor be hired as he uses more hesitations in an informative lecture.

The final measure of effectiveness used in this investigation was students' lecture listening scores. Lecture listening refers to an individual's ability to listen to and subsequently retrieve information presented in a lecture format (Watson & Barker, 1985). Thus, the measure of lecture listening is recall. This listening skill may be the most important one for success in the pedagogical context. An instructor's use of hesitation forms may inhibit students' listening abilities and thus their abilities to recall said information. Hesitations add nothing to the content of a message thus, they may be viewed as distractors; as forms of noise. Weaver (1963) noted the relevance of noise to information retention in the formula:

$$H(x) - H_y(x) = H_x(y) - H(y)$$

where $H(x)$ = information from the source, $H(y)$ = desirable uncertainty of the received signals, $H_y(x)$ = equivocation (undesirable uncertainty due to noise), $H_x(y)$ = noise, and $H(y) - H_x(y)$ = useful information. The

presence of hesitation forms ($H_x(y)$) would decrease the capacity of the channel to carry useful information resulting in lower recall scores.

The few studies that have examined the effects of similar types of language use on information recall however, have failed to find this expected effect. For example, research investigating distracting paralinguistic features such as mispronunciation (Barker & Kibler, 1968; Kibler & Barker, 1968; Kibler & Barker, 1972) and stuttering (Klinger, 1959) indicated that even when these elements were present in messages, recall scores did decline. Since a rationale can be developed for predicting a directional or null effect, we chose to ask a research question.

Research Question 1: What effect will hesitation use have on lecture listening scores?

Method

Subjects

Study participants were 220 students enrolled in introductory communication courses at a small rural midwestern university, a southern university and an urban western university. Data were collected during regularly scheduled class times at the beginning of the semester. Participants were separated and randomly assigned to one of four speech conditions: no hesitations, low hesitations, moderate hesitations and high hesitations.

Procedures

Participants were told to read the instructions silently while the experimenter read them aloud. The cover was that the University was interested in obtaining student input concerning a candidate for a new teaching position in the Department of Geology. Groups of participants were exposed to one of four lectures (approximately seven minutes long — 1200 words) by the candidate on continental plate drift. Four lecture conditions were constructed. In the no hesitation condition the lecturer used straightforward speech (7 mins.). In the low hesitation version 16 hesitation forms were included (1.33%, 7 mins. 9 secs.). The moderate hesitation presentation contained 33 hesitations (2.75%, 7 mins., 18 secs.), and the high hesitation version contained 66 hesitations (5.5%; 7 mins., 37 secs.). All versions of the lecture, which were identical in content, were recorded on audio tape by the same experienced male speaker. Taped

presentations were selected because Searle and Bostrom (1985) found that the audio version of a message generated results more similar to live, face to face interactions than a video taped version. A panel of three faculty judges listened to samples of each version of the lecture to assure that such paralinguistic features as rate and inflection were consistent between conditions. One condition was rerecorded because judges noted paralinguistic differences.

Participants were then given the packets which contained the dependent variables. The order of the variables was instructor quality, recommendation to hire and lecture listening. This order allowed that the recall scores represented long term memory scores (over a 1 minute delay between exposure to the stimulus materials and recall questions).

Dependent Variables

Ratings of instructor quality, recommendations to hire or not to hire, and lecture listening served as dependent measures.

Instructor quality was operationalized by an eleven item scale consisting of questions selected from teaching evaluation forms used at eight major universities (see Table 1 on page 38). Recommendation to hire or not to hire was measured by subject response to the question: Would you recommend that the University hire this speaker?

To measure lecture listening, subjects completed an eleven question multiple choice examination based on material covered in the four lecture conditions. The test items were sufficiently difficult (mean number correct was 5) so as to reduce the possibility that they might be general knowledge for students and thus that the recall scores reflect a ceiling effect. Questions were similar to those that might be encountered by undergraduates enrolled in an introductory course. This procedure mirrors the method used to measure lecture listening in the Watson-Barker listening test (1985).

Results

Data Analysis

Data were analyzed using SPSSX programs Factor, Manova (Newman-Keuls range test) and Cross-Tabs (Chi-square) (Norusis, 1983). Alpha was set at .05 for rejection of the null, while power set at .80 with a moderate effect size (.30) required a per cell N of 44 (Cohen, 1977). This study had a per cell N of 55.

Table 1
Instructor Quality Rating Form

Each item was rated using the following interval scale:

A. superior B. above average C. average D. below average E. inferior

1. The speaker's enthusiasm for the subject matter was?
 2. The speaker's ability to cover the material at an appropriate pace was?
 3. The speaker's ability to explain complex material was?
 4. The speaker's ability to speak audibly and clearly was?
 5. The speaker's level of organization was?
 6. The speaker's ability to capture my attention was?
 7. The speaker's knowledge of the subject matter was?
 8. The speaker's ability to communicate effectively was?
 9. The speaker's level of preparation was?
 10. The speaker's ability to present material in an interesting fashion was?
-

Data Preparation

Instructor quality ratings were subjected to maximum likelihood factor analysis and varimax rotation (Norusis, 1983). Only one factor emerged (see Table 2). Reliability of this factor, computed by generating an alpha coefficient, was .91. Because this dependent measure was a compilation of several forms and thus data did not exist to support a specific factor structure, we chose to accept the model generated through the factor analysis. We will refer to this factor as instructor quality. The items from the student evaluation of the instructor's quality were averaged and the mean scores were used in testing hypothesis one.

Manova

Multivariate analysis of variance demonstrated significant effects (Hotellings = 6.09 $F(6,428) = 21.7$, $p < .0001$; Wilks = 6.09, $F = (6,430) = 20.9$, $p < .0001$). Univariate tests were used to test the hypotheses.

Hypothesis One

Hypothesis One, which asserted that instructor quality ratings would decrease as the use of hesitation forms increased, was supported. One way analysis of variance found significant mean differences between treatment groups ($F(3,216) = 36.4$, $p < .0001$, $\eta^2 33.6\%$). Newman-Keuls range tests demonstrated the following order of quality ratings by pre-

Table 2
Factor Analysis of Student Ratings of Teacher Quality

<i>Questions</i>	<i>Factor 1</i>
Q-1	.68
Q-2	.50
Q-3	.72
Q-4	.59
Q-5	.68
Q-6	.76
Q-7	.67
Q-8	.80
Q-9	.70
Q10	.80
Q11	.69

sentation (from high to low): a) no hesitations, b) low and moderate hesitations, c) high hesitations (see Table 3 on page 40). The use of low frequencies of hesitations significantly lowered teacher quality scores and the highest number of hesitant speech features resulted in the greatest drop in quality ratings.

Hypothesis Two

Hypothesis two was also supported. A frequency table analysis found a significant relationship between the decision to hire and the teacher's use of hesitations ($X^2 (3) = 21.2, p < .0001$, Cramer's V 51%). As hesitation use increased, recommendations to hire decreased (see Table 4).

Research Question

A one-way analysis of variance, using listening scores as the dependent measure, found significant mean differences ($F (3,216) = 13.9, p < .001$, η^2 16.3%). Subsequent Newman-Keuls range tests revealed the following hierarchy of mean scores (see Table 3): a) no hesitations, b) moderate hesitations, c) low hesitations and high hesitations. The introduction of hesitation forms lowered listening scores and the highest number of powerless speech features was linked to the lowest listening scores. However, subjects retained more information when exposed to the moderate hesitation presentation (the condition with the second highest frequency of powerless features) than in the low hesitation treatment which contained a lower number of powerless features. This apparently

Table 3
Means, Standard Deviations, and Contrasts of Teacher Competence
Ratings and Recall Scores

	<i>Moderate Hesitations mean (SD)</i>	<i>High Hesitations mean (SD)</i>	<i>No Hesitations mean (SD)</i>	<i>Low Hesitations mean (SD)</i>
Competence	3.78 (.43)a	3.29 (.54)b	3.09 (.52)b	2.75 (.58)c
Recall	6.18 (2.2)a	4.34 (1.7)c	5.38 (1.5)b	4.16 (1.8)c

*Means with common superscripts in rows are not significantly different.

anomalous finding is discussed later and integrated into a revised model of noise effects.

Discussion

This research seems to add two bits of knowledge to our understanding of the effects of hesitation use. First, it provides evidence indicating that hesitation use may negatively impact instructor effectiveness. More specifically, these results strongly support the contention that, if while interviewing the candidate gives a brief lecture to students and if student input affects the hiring decision, said candidate should avoid hesitation use. Even in concentrations as low as 1.33% hesitation use hurt the lecturer's effectiveness.

Any attempt at generalizing these results to the pedagogical context as a whole, however, must be done cautiously. Although the findings of this study suggest that hesitation forms should be avoided in initial encounters in the classroom, the use of hesitant speech may not be as damaging later in the semester or quarter. McGlone and Anderson (1973) examined teacher quality ratings over an entire class term and found that students evaluate instructors differently overtime. According to these researchers:

At the beginning of a course, students are concerned primarily with whether the instructor is expert in the task related skills of teaching--the question of whether he (she) " knows his (her) subject." Near the end of a course with the final exam imminent, the expertness of the teacher is of substantially less importance than the global judgments about his (her) personality: whether he (she) is in a "good mood,"

Table 4
Frequency of Decision to Hire or Not Hire

	<i>No Hesitation</i>	<i>Low Hesitation</i>	<i>Moderate Hesitation</i>	<i>High Hesitation</i>
Hire	52	38	31	14
Not Hire	03	17	24	41

whether he (she) has favorable personal feelings toward the students, whether he (she) is objective etc. (p. 199).

This issue raises several questions for future research. First, which is stronger, the initial impression made by hesitation use or the change in students' perception of what is important as the term progresses? Put another way, can an instructor overcome that negative first impression caused by using hesitations? Further, what is the effect of hesitation use on teacher effectiveness when the students already know the teacher? The present study used an instructor with which the students had no prior interaction. It could well be that once the students have interacted with the instructor her/ his verbal behaviors will have little effect. What effect does hesitation use have on faculty evaluations of quality? As perhaps should be the case, the present study raises many more questions than it answers.

The second bit of knowledge added by the present study is the effect of hesitation use on lecture listening. To our knowledge, this is the first demonstration of such an effect. This finding, however, does not demonstrate the linear relationship predicted from Weaver's model (1963). The no hesitation condition generated the highest recall scores (recall-6.18) followed by the moderate hesitation condition (33-hesitations; recall-5.38). The low hesitation and high hesitation conditions generated statistically equal scores (recall- low 4.34; high 4.16).

By adding the concept of elasticity to channel capacity these data, as well as the null findings discussed previously, are explainable. Boster and Stiff (1987) as well as Petty, Kasmer, Haugtvedt, and Cacioppo (1987) note, the capacity of one's processing channels can vary. For example, Cacioppo and Petty (1981) have demonstrated that the more involved one is in the topic being communicated, the greater the capacity of the central processing channel. This is the route that attends to the content of the message.

The key to the present study is that receivers can affect the capacity of their processing channels by focusing attention. That is, auditors may in

crease the capacity of the central processing channel by focusing attention and they can decrease its capacity by not attending as strongly to the message. The original formula for noise effects was generated assuming fixed channel capacity. It is possible, in the present study then, that when a low number of hesitations were present the listeners did not take note and therefore did not compensate for the noise generated by the hesitations. Thus, the channels capacity was decreased and subjects recall went down. In the moderate hesitation condition however, the distraction was noticeable and the listeners compensated (increased the channel's capacity), leading to higher recall scores. In the high hesitation condition however (66 hesitations), the frequency of hesitations was so distracting that the listeners did not choose to expend the energy needed to compensate, resulting in lower recall scores.

This explanation should be tested. It may be that the key variable here is the listener's motivation to get the message's content. If highly motivated, the noise caused by hesitation use would be compensated for by focusing attention and thus increasing channel capacity, resulting in higher recall. If however, the listener is not motivated to get the content, one would expect the recall scores to drop. The motivation to get the content then is said to be weighed against the energy required to compensate for the noise, the decision is rendered by the direction the scales tip.

This investigation demonstrates that powerful/powerless language construct can provide important insights into what constitutes effective and ineffective behavior in the classroom. The fact that hesitations lower some measures of teacher effectiveness suggests that other forms of powerless talk like hedges, tag questions, and disclaimers could also have a negative influence on teacher evaluations and student learning. The impact of these features should be investigated. Such investigations may give us a clearer picture of how the competent teacher uses language.

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