# DOES IT HURT TO SAY UM?

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ABSTRACT: This paper examines whether the profusion of ums that so many speakers produce is noticed, and whether these ums influence what audiences think of speakers. Even though ums do not seem to be a product of anxiety or lack of preparation, the first study, using a simple questionnaire, indicated that the average listener assumes that they are. The second study manipulated um rates by editing a tape to create a version where ums were replaced by silence or were eliminated. The original and edited versions were played to audiences who were told to focus on either the content or the style, or were not given any particular instructions. Estimates of ums showed no sensitivity whatsoever in the content focus, some sensitivity without focus instruction, and greatest sensitivity with the style focus, suggesting that ums can be, but are not always, processed automatically. On subjective ratings of the speaker, filled pauses created a better impression than silent pauses, but no pauses proved best of all. The ums had an effect even in conditions where the audience was unable to report their presence.

While some speakers utter hundreds of ums in an hour's talking, others get away with only a handful. Although considerable attention has been devoted to understanding the causes of this vast range of filled pause rates (Goldman-Eisler, 1968; Reynolds & Paivio, 1968), little energy has been spent investigating the effect of ums on the audience. This paper examines ums from the perspective of the listener and investigates the impression a profusion or paucity of these filled pauses creates. That is, do heavy ummers pay a price for their profligacy and um-avoiders reap the rewards of their restraint?

There are two potentially distinct issues in um perception. The first, dealing with automaticity, is whether ums are noticed. It may be that, with speech racing by at two or three words per second, ums are filtered out or simply discarded at an early level of processing. Many aspects of speech, both production and perception, are automatic (cf. Levelt, 1989), and it may be that ums are processed without conscious awareness. On the other hand, ums could be rhetorical sore thumbs, with the audience acutely sensitive to

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each one produced. Ums rival "the" as the most popular thing to say, and listeners do remember details of surface structure (Bates, Masling, & Kintsch, 1978), so it is quite plausible that filled pauses would be noticed.

The second issue, one of person perception, is what effect these filled pauses have on the audience's perception of the speaker. Do people form a different impression of speakers who litter their speech with ums than of those who utter but a few? Ums may influence an audience in two ways. They may be noticed, and, based on the listeners' theory of what they signify, influence the speaker's reputation. Or the ums may have their effect without the listener being aware of their presence. In this case, the effect they have need not be the same effect people think they have. There are then three questions that will be addressed. What people think ums signify; whether people actually notice ums; and what is the actual effect of ums in shaping listeners' impressions of a speaker.

Rhetoricians suggest that filled pauses signify nothing good, and warn their students against polluting their speech with ums, ers, and uhs (McBurney & Wrage, 1953; Samovar & Mills, 1983). They argue that these noises undermine the good impression orators are struggling to create. Deese (1984), in his book on psycholinguistics, offers similar advice: "Speech without filled pauses gives a sense of directness and strength, and, what is more, of the speaker's superiority" (p. 100).

In spite of the warnings against ums, research on the actual causes of ums has failed to link the pauses to anything particularly bad. Ums, unlike silent pauses, sentence restarts, word repetitions, and almost every other disfluency, do not increase with anxiety (Mahl, 1987). Nor does umming seem to be a sign of lack of experience speaking on the topic (Schachter, Christenfeld, Ravina, & Bilous, 1991) or lack of preparation (Christenfeld & Franklin, unpublished data).

The factors that do reliably influence ums have less to do with the state of the speaker than with nature of the topic. Ums increase when the topic is more abstract (Reynolds & Paivio, 1968; Siegman & Pope, 1966), and ums are also associated with using a large vocabulary (Schachter et al., 1991) and contemplating complex options (Christenfeld, 1994; Berger, Karol, & Jordan, 1989). These findings suggest that ums are an indication that the speaker is thinking. This, in most situations, is nothing to be ashamed of. The first study, a small survey, simply examines whether people agree with the advice of the public speaking coaches, and find ums distasteful, or whether they follow the empirical evidence, and think that ums indicate thoughtfulness.

#### **Study 1: Expected Um Effects**

#### Method

Twenty-one undergraduates, eleven females and ten males, participated in the study. They were involved in a separate experiment as part of their research participation requirement, and were asked if they were willing to fill out our short questionnaire before they started. All approached agreed. They were given a one-page questionnaire asking what they thought frequent umming indicated. On the top of the form was written: "On the whole, do you think speakers who say 'um', 'er', and 'uh' a lot tend to be;" this was followed by 15 adjectives with five-point Likert scales ranging from very high on the opposite of the trait to very high on the trait. For example, they rated whether they thought heavy ummers tended to be "very disfluent," "slightly disfluent," "average, "slightly fluent," or "very fluent." These adjectives center generally around issues of anxiety and eloquence, since these domains seemed likely to be expected to be affected by ums. On the bottom of the form subjects rated, on a seven-point Likert scale, how often they thought a speaker's ums influenced their impression of the speaker.

## Results

The case against ums appears, from subjects' responses, to be quite strong. On not a single one of the scales did high ummers get a positive rating. They were rated as uncomfortable, inarticulate, uninteresting, ill-prepared, nervous, disfluent, unattractive, monotonous, unsophisticated, and lacking confidence. Although there was no opinion with regard to intelligence, education, competence, literacy, or arrogance, the high ummers got positive ratings on only 3% of the 315 individual ratings (21 subjects × 15 adjectives). The adjectives and the ratings are shown in Table 1. These subjects clearly do not admire ums or think they are a sign of rhetorical wizardry.

The subjects, in addition to thinking that umming is an indication that the speaker is not doing so well, also thought that they often take these ums into account in forming their impression of the speaker. With one indicating "never" and seven indicating "always," the average for the question about how often they are influenced by ums was 5.0. There were no gender effects on any of the ratings.

#### Discussion

These results suggest answers to both the automaticity and person perception questions. The subjects report that ums are not processed auto-

TABLE 1

Ratings Given to Hypothetical Heavy Ummer

Adjective	Rating
Intelligent	3.06 (0.83)
Comfortable	1.95 (0.80) ****
Educated	2.93 (0.70)
Articulate	1.86 (0.73) ****
Interesting	2.35 (0.67) ***
Prepared	1.95 (0.60) ****
Nervous	4.10 (0.54) ****
Competent	2.93 (0.59)
Fluent	2.45 (0.60) ***
Literate	2.83 (0.39)
Attractive	2.50 (0.53) *
Monotonous	3.75 (0.78) **
Sophisticated	2.53 (0.70) **
Confident	2.00 (0.65) ****
Arrogant	2.75 (0.71)

Note. Scores indicate means on a five-point Likert scale, with 5 being very high on the trait, 3 neutral, and 1 very high on the opposite of that trait. Standard deviations are shown in parentheses. Starred ratings are significantly worse than neutral, \*p < .05, \*\*p < .01, \*\*\*p < .001, \*\*\*\*p < .0001.

matically, but instead they are noticed most of the time. They also say that a speaker's use of ums will make the audience think less of the speaker. However, people are remarkably inaccurate at describing how various factors influence them or even what factors do have an impact on their decisions and behavior (Nisbett & Wilson, 1977). Therefore, before accepting the reports of these subjects, it is worth examining the actual sensitivity to and effects of ums. This question of what ums really do to an audience is addressed in the second study by removing the ums from a passage of speech, and measuring the audience's sensitivity to this change in the number of ums and how this alteration affects their impressions of the speech and speaker.

Rather than examining the effect of ums in a variety of speakers' utterances, this study examines the effects of ums in a single speech under a variety of different conditions. Using only one speaker does potentially limit the generalizability of the findings since it cannot address whether the same results would apply to male and female speakers, fast and slow speakers, good and bad speakers, formal speeches and casual chats, and so on. However, if a variety of speakers are used, and the results differed for each, one would have to guess, post hoc, what the underlying important parameter might have been. Using a single speech and experimentally manipulating a potentially important parameter allows us at least to answer directly one question about the generalizability of the findings.

## Study 2: Actual Um Effects

### Method

This experimental investigation of ums' effects requires that an issue that has been implicit, both in the recommendations of rhetoricians and in the first study, be made explicit. If a speaker eliminates ums, what, if anything, takes their place? The answer depends on the etiology of the um. If the term filled pause is accurate, then the alternative to ums would be silent pauses. That is, a speaker confronted by some tough option will pause, and can leave this pause silent or fill it with an um. Thus, to examine the effect of ums, one should compare them to silent pauses. However, it is possible that ums and silences do not have a common cause. Ums may occur in places where otherwise the speaker would have simply continued talking. Thus the alternative to the um would be no pause at all. To avoid having to decide this issue, two comparisons are included in this experiment. Ums are compared to silent pauses and to no pauses.

Materials. A radio talk show caller with a naturally high um rate, 25 ums in 167 seconds, was taped off the air. His conversation with the host was digitized, using AudioMedia analogue to digital converters and software on a Macintosh computer. A 16-bit sample at 44 kHz was used. Three versions of the conversation were then created. In one, no changes were made, leaving the 25 filled pauses (which occupied about nine seconds), and another twenty seconds of silent pausing. In the second version, each filled pause was replaced with a silent pause of equivalent duration, producing 29 seconds of silence. In the last version, the filled pauses were removed and not replaced with anything, making the tape nine seconds shorter.

The twenty seconds of silence in the original version was comprised of 42 pauses of about half a second each, many of which were due to the requirement of breathing. The inserted silences that replaced filled pauses

in the second version were about one third of a second each, well within the normal range for a naturally occurring silent pause.

The original and the two edited versions were then re-recorded onto analogue tape. The tapes were just over three minutes long, with the caller speaking for 167 seconds (158 seconds in the version with filled pauses replaced with nothing), and the host filling the balance. The caller, who appears from his voice to be an educated male in his thirties, is responding to a question about affirmative action. He makes a reasoned argument that there should be some fixed duration to such programs, and discusses briefly how one might determine what that duration should be. Both edited versions sounded entirely natural, and not a single subject, given a chance to comment freely on any aspect of the experiment, suggested any hypothesis even remotely approaching alterations of the tape.

We then have three versions of the call: one with an um rate of 9.0 per minute, and two with um rates of zero. The tape with ums replaced by silence (hereafter referred to as the silent pause version) is how the speaker would sound if he learned simply not to say um, without any changes in how long he took to consider a point, without changes in speech rate, and without changes in the duration of the call. A comparison of the original (called the filled pause version) and silent pause version addresses the issue of what would happen if speakers just shut up whenever they are tempted to say um.

The other edited tape, with the filled pauses removed (hereafter called the no pause version) represents a more substantial change in the speech production of the caller, Instead of just avoiding ums, such a speaker would have to learn not to pause at these points. If ums are likely when confronted with tough options, then, in order to produce such speech, this speaker would have to make these decisions without the time a pause furnishes. The no pause version allows some insight into whether the effect of filled pauses depends on them being filled or if any pause of that duration in that position would have the same effect on that audience.

Subjects. The tapes were played to introductory psychology classes. For each condition we brought the tape to either two or three different classes. The number of subjects per cell varies from 62 to 248. This disparity is due to variations in course enrollment and attendance. This does not constitute perfect random assignment, since the unit of analysis is the student, not the class. However, any effect of class is unlikely, since these are all the sorts of courses that all psychology majors must take, and so enrollment is more a function of scheduling than meaningful individual differences. There were, in fact, no differences on any measure between

classes within condition, and all data are analyzed collapsed across class. There are a total of 1067 subjects, though particular analyses may be based on slightly smaller numbers, since some subjects failed to answer some questions.

Procedure and measures. The experimenter arrived at the start of the class and told the students that they would hear a short tape and then fill out a brief questionnaire about it. The experimenter then played the tape, using a portable tape player, and, when the tape was over, distributed a two-page questionnaire. The first page asked the listener to rate the speaker on 15 adjectives using a seven-point Likert scale. These were the same adjectives that were used in the first study, allowing for a direct comparison of ums' anticipated and actual effects. Listeners also indicated their gender.

The second page contained two questions about the speaker's ums. The first question asked the subjects to estimate the actual number of ums produced. The second had the subjects rate him on a seven-point Likert scale of um use compared to the average speaker. This scale ranged from "many fewer" to "many more." The questions about ums were asked on the second page so that they would not contaminate the other ratings of the speaker.

Attention manipulation. We also manipulated the way that subjects attended to the tape. It had dawned on us, after months of counting ums, that we had no idea of anything speakers were saying, except for um. This suggested that paying attention to content and to stylistic aspects such as um rate may be incompatible. This notion was investigated by deliberately focusing the audience's attention on different aspects of the speaker. Students were either not given any particular hints about what they should pay attention to, or they were given one of two focus instructions. In one condition they were told to concentrate on the content of the conversation, and in the other they focused on the style of the speech. The instructions, which were read to the subjects just before the tape was played, are presented below.

Content Focus: The tape you are about to hear is a segment of a radio talk show program discussing the issue of affirmative action. While you listen to it, I would like you to consider the attitude of the caller. What is his position? Is it reasonable? Does it make logical sense? How well does his argument support his position?

Style Focus: The tape you are about to hear is a segment of a radio talk show program. While you listen to it, think about how good a speaker the caller is. Is he eloquent? Do you think he is the kind of person who uses the language well in general? Do you like his speaking style?

It was expected that whatever sensitivity to ums might exist without instructions should be eliminated by attention to content. The style focus manipulation was expected to heighten any sensitivity to the ums by shifting attention away from substantive issues.<sup>1</sup>

The design then is a 3 (filled pauses, silent pauses, or no pauses)  $\times$  3 (no instructions, content focus, or style focus) between-subjects factorial.

#### Results

These data will allow us to examine the audience's sensitivity to ums under the various focus conditions and also the effect that ums have on subjective ratings of the speaker. There were no direct or interactive effects of the gender of the listener on any dependent variable, and all analyses are collapsed across this factor.

First, we will look at how accurate the subjects were in estimating the um use of the radio caller. The estimates of the actual number of ums used was profoundly skewed, and so a square-root transformation was used. This transformed estimate of the number used correlated r=.40 with the Likert question of relative um use. Analyses using these two dependent variables produced very similar results, and so to enhance reliability, and to simplify the reporting, all analyses are based on an average of the two. This average was computed from standardized scores of the two scales to control for variance differences. The audience size and means of this um sensitivity index for the nine cells are shown in Figure 1.

The data were subjected to a 3  $\times$  3 analysis of variance (ANOVA), and the main effect of tape was significant, F(2, 1011) = 6.41, p < .005. The groups that heard the tape with ums did estimate that there were more ums than the groups that heard none. The main effect of which focus instructions the subjects received was significant, F(2, 1011) = 3.05, p < .05, with the content focus group estimating fewer filled pauses than the other two groups. This is not a sign of sensitivity, but merely an indication that how subjects attend to the tape, regardless of how many ums it contains, influences their estimates of um frequency. The interaction between which tape the audience heard and which focus instruction they were given was also significant, F(4, 1011) = 4.26, p < .005. Furthermore, the pattern follows the prediction fairly closely. When the audience was in-

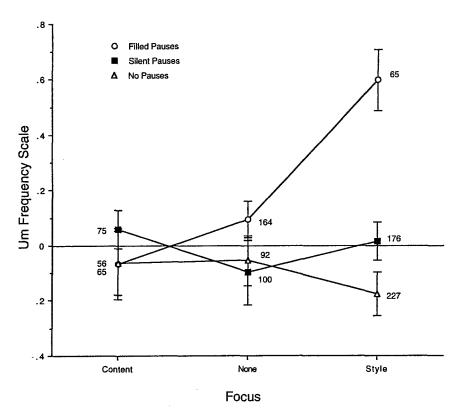


Figure 1. Um frequency ratings for the tapes with filled pauses, silent pauses, and no pauses, under the three different focus conditions. Means are standard scores of the average of the two standardized scales, the Likert comparative scale and the estimates of the actual number of ums. Standard errors for each cell are indicated, as well as number of subjects per cell.

structed to pay attention to the content, there was no indication of sensitivity. The tape with ums was rated no higher than the two without ums, F(1, 1011) = 0.17, ns. In the condition with no focus instructions, there was a marginal difference, F(1, 1011) = 2.64, p = .10. The difference between the tape with ums and the two without was highly significant in the style focus condition, F(1, 1011) = 26.42, p < .0001. These data are consistent with the idea that in the condition with no specific instructions about where to focus attention, some of the subjects attended to style, and were sensitive, and some attended to content, and were not.

The specific contrast that sensitivity (the difference between the tape with ums and the ones without ums) will start at nothing in the content

focus, be intermediate in the no focus condition, and be greatest in the style focus was highly significant, F(1, 1011) = 26.87, p < .0001. This contrast explains 86% of the variance of cell means.

The sensitivity we are talking about is of a peculiar kind. In the most sensitive condition, the style focus, the subjects who heard 25 ums guessed that there were 31.2 (a high, though not unheard of rate). The subjects in the silent pause condition, who did not hear a single um, guessed an average of 22.1, and the subjects in the no pause condition, who also did not hear a single um, guessed 21.7. On the Likert scale comparing the caller to an average speaker, the um-hearing subjects in the um-sensitive style condition averaged 4.8 out of 7, for a speaker with a very high rate. The umsensitive style condition, and 3.8 for the no pause condition. This suggests that the um-hearing subjects knew there were many ums, and so made a high estimate, but the no-um subjects, not aware that they were not hearing ums, guessed that the um rate was average (4 on the seven-point scale or about 22 ums).

When people pay attention to the style of the speaker, they are conscious of ums in the speech. However, when they attend to the content of the message, they show no awareness that an um is occurring roughly every seven seconds. If the automatic processing of ums that occurs when attention is devoted to substance results in filled pauses being completely ignored, then there should be no effect of the editing on any of the ratings of the speaker. That is, ratings of the speaker could be influenced by the presence of ums in the style focus condition, slightly in the no focus condition, but not at all in the content focus condition. On the other hand, if awareness of ums is not a necessary precursor to their having an effect, then there is no necessary relationship between the situations where filled pauses are noticed and when they influence the audience.

The effect of ums can be addressed by examining the ratings that the subjects gave the speaker in each condition. The fifteen adjectives were factor analyzed, using a principal components procedure, with Varimax rotation. Factors with eigenvalues of 1.0 or greater were retained for analysis; and items with factor loadings of .50 and greater were included in a given factor. Using this procedure, three factors were extracted. The first factor, accounting for 40% of the variance, contained, in descending order, the following variables: educated, literate, competent, intelligent, articulate, fluent, sophisticated, prepared, and interesting. This factor seems to form an "eloquence" scale.

The second factor, with 12% of the variance, contained the variables: nervous (negative), comfortable, and confident. This forms a scale of how relaxed the speaker seemed. The final factor, accounting for 8% of the

variance, contained the variables arrogant and monotonous. It is hard to know what this factor represents, but not much effort is justified, since no significant results emerged for this variable. The only adjective that did not load on one of the factors was attractive. This is admittedly a hard one to judge from the tape, and presumably reflects nothing more than random guessing. Again, there were no significant effects on attractiveness ratings.

New scores of eloquence and relaxation were computed from linear combinations of the adjectives identified by the factor analysis. These ratings allow us not only to examine the effect of ums on impressions of the speaker, but also to get another look at people's ideas of the relationship of ums to various traits. Controlling for condition, both the eloquence scale and the relaxed scale were independently associated with people's guesses about the um rate. How eloquent the subjects rated the speaker was significantly negatively associated with how many ums they thought he produced, r(951) = -.15, p < .0001, partialled for effects of condition and relaxed scores. Similarly, the more ums the subjects thought the speaker produced, the less relaxed they rated him, r(951) = -.27, p < .0001, partialled for the effect of condition and the eloquence score. These findings are consistent with the earlier data that people do not think saying um is a good rhetorical practice.

To test what effect the ums actually had on people's impressions, ANOVAs were performed on the factor-derived scales, using the three different focus instructions and the three different versions of the tape as factors. For the eloquence scale, shown in Figure 2, both main effects were significant. The more people attended to the style of the speaker, the worse they thought it was, F(2, 1035) = 17.52, p < .0001. The judgments of eloquence also depended on which tape they heard, F(2, 1035) = 16.73, p < .0001. The no pause tape was rated as significantly more eloquent than both the filled pause tape, F(1, 1035) = 20.87, p < .0001, and the silent pause tape, F(1, 1035) = 20.53, p < .0001. The filled and silent pause tapes were not different on the eloquence scale, F(1, 1035) = 0.26, p < .0001. There was no interaction between the focus instructions and which tape subjects heard, F(4, 1035) = 1.24, p < .0001.

The eloquence ratings suggest that audiences do not base their impression of the quality of the speech on the rate of ums, and that replacing them with silent pauses does no good. However, no pauses is better than either filled or silent pauses in giving an impression of rhetorical mastery. It is not possible to tell whether this was due to eliminating some particular pauses that made a bad impression, or more generally from increasing the speech rate by 6%. Miller, Maruyama, Beaber, and Valone (1976), for ex-

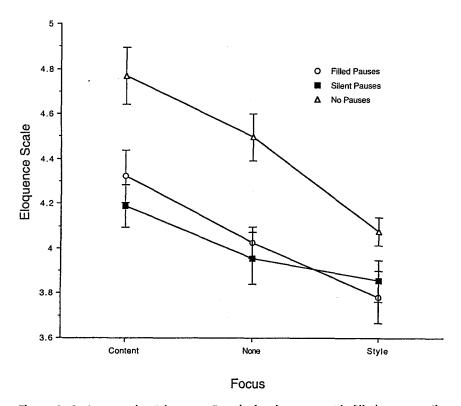


Figure 2. Ratings on the "eloquence" scale for the tapes with filled pauses, silent pauses, and no pauses, under the three different focus conditions. Standard errors for each cell are indicated.

ample, found effects of speech rate on persuasion, though their manipulation increased the speech rate by 91%.

The analysis of the relaxed scale presents a slightly different picture, which is presented in Figure 3. Once again, there was a main effect of the focus condition on the evaluation of the speaker, with the relaxed rating decreasing as more attention was directed to style, F(2, 1097) = 8.68, p < .0005. There was also a significant effect of which tape subjects heard on these relaxed ratings, F(2, 1097) = 6.94, p < .001. While people thought that ums reflected anxiety, the tape with ums was actually rated as more relaxed than the tape with silent pauses, F(1, 1097) = 8.28, p < .005, and no different from the tape with no pauses, F(1, 1097) = 0.14, ns. The no pause tape also was rated as more relaxed than the silent pause version, F(1, 1097) = 11.76, p < .001. This suggests that what creates an impression of anxiety is silent pauses and either eliminating them or filling them

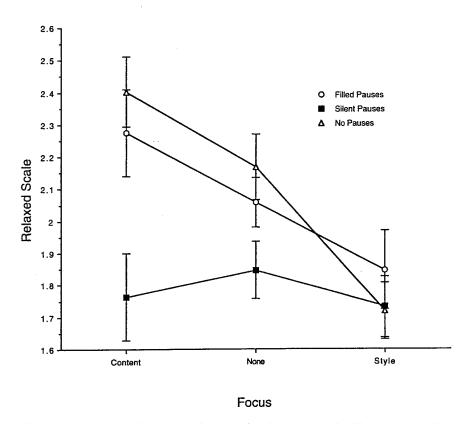


Figure 3. Ratings on the "relaxed" scale for the tapes with filled pauses, silent pauses, and no pauses, under the three different focus conditions. Standard errors for each cell are indicated.

will take care of the problem. There was also a significant interaction between which tape they heard and what focus instruction they were given, F(4, 1097) = 2.49, p < .05, with the detrimental effects of silent pauses most apparent in the content focus condition. Once again, the effect of the editing does not confine itself to the style focus condition where the alterations were most noticeable.

The actual effects of ums seem very different from the expectations that people indicated in the first study. These two can be directly compared by correlating the ratings that people gave the hypothetical high ummer with the differences between the ratings of the tape with ums and the tape without ums. That is, for each of the fifteen adjectives, the actual effect of ums can be determined by subtracting the rating given to the tape without ums from the rating given to the tape with ums. This can be done for both

the silent pause and the no pause versions. For the comparison of filled and silent pauses, there was a strong negative correlation between this measure and subjects' ratings of ums' expected effects, r(13) = -.80, p < .0005. The expectations about ums, assessed in Study 1, were not only not accurate, but they were actually significantly backwards. For example, people indicated that they though ums were a sign that the speaker was nervous, but the tape with ums got a lower rating on nervousness than the tape with silent pauses. There was no correlation for the difference between filled pauses and no pauses, r(13) = -.04, ns.

## Discussion

People are capable of noticing ums. The people who do so are those who attend to the style of the speaker (and of course pausologists, and, briefly, readers of this paper). Ums may be invisible to those listeners who attend to substance.

The ums also influence audiences' impressions of the quality of the speech. The conclusions, however, depend on what the ums are compared to. Saying um instead of leaving a moment of silence does no damage to the ratings of eloquence, and actually makes a speaker seem less anxious. On the other hand, having no pauses improves the audience's impression of eloquence, though not of anxiety. The former comparison may be of greater practical importance for speakers, since it is presumably easier to stop uttering ums when confronted with difficult choices than to no longer find such choices difficult.

Nisbett and Wilson (1977) argue that people essentially have no insight into which factors in the environment are controlling them, and others argue that many of the factors that do control behavior never even enter consciousness (cf. Kihlstrom, 1987). Similar conclusions about ums seem justified. People's impressions about the effects of ums are very different from the actual effects, and the conditions that make people sensitive to the ums are not the same ones where the ums have their impact. The filled pauses seem to be processed automatically in the content focus condition, with subjects unable to report their presence, but nonetheless influenced by their rate. In the style focus, subjects were aware of the ums, but the effect they had was very different from the effect expected of them.

If it is true that ums themselves are rarely noticed, and they do not cast the speaker in an unflattering light, why should they have such a bad reputation? The present data suggest a solution to this apparent contradiction. The speakers' ums were noticed only when the audience was attending to the style, and not to the content of the utterance. When an audience attends to style, it may well be a result of the content being unworthy of attention, or the speaker's style being distracting. In this case, ums will not be associated with poor speech, but noticing ums will be. Just about every speaker produces ums, but the good speakers, by keeping substance, not style, as the center of attention, will effectively hide their hesitations. Bad speakers' ums will be left for all to see. If this is so, then replicating this experiment using speeches that range from dull to fascinating should mimic the present findings using explicit attentional instructions.

An issue worthy of further study is the relationship of actual rhetorical skill to um rates. While we have evidence that eliminating ums has at most a minimal effect on the audience's impressions, it may still be the case that people's um rates are correlated with their speaking talents. The direction of this correlation, though, might be surprising. Ums do not seem to increase with anxiety and lack of preparation, things presumably associated with poor rhetoric. Instead, ums signal contemplation of options and the selection of words from a varied vocabulary, both presumably associated with rhetorical skill.

The available evidence indicates that ums may be bad at one level, what people think of them, but not bad, and possibly good, at the other two levels, what actually causes them, and what they do to a speaker's reputation. The results suggest that perhaps speakers should actually strive to increase their um rates. They would be wise, though, not to brag about it to their audiences.

### Note

1. The experimenter was not blind to which tape was to be played (and clearly also not blind to which focus instructions were to be given), but the completely standardized instructions and the self-explanatory rating scale minimize the potential for expectancy effects.

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