Exploring Filler Words and Their Impact

Emily Duvall, Aimee Robbins, Thomas Graham, and Scott Divett

The purpose of this report is to analyze and synthesize research regarding filler words in order to explain and correct the phenomenon of filler words in the English language. It will explore the causes of filler words (such as divided attention, infrequent words, and nervousness), their impact on credibility of the speaker, their impact on comprehension of the listener, and possible solutions for improving communication (for both the speaker and the listener). The overall findings of the research presented in this report lead to the conclusion that not using filler words or excessively using filler words can cause harm to a speaker's credibility in that the speaker can be seen as unprepared or inexperienced. The most effective speech occurs when filler words are used moderately.

I. Introduction

It is rare to encounter an individual who does not resort to using filler words when rushed or unprepared when speaking. Filler words permeate our society in virtually all aspects of speech. Whether an individual is talking with a friend, attending a lecture, or listening to a public speech, he or she is likely to hear some type of filler. A filler word, for the purposes of this article, is any word or sound that interpolates the main message of the speaker. Words such as *like, um, uh,* or *ya know* are considered filler words. Repetition can also be considered a type of filler. Despite the various causes of these words, every interpolation has an impact on the credibility of the speaker and on the comprehension of the listener. The purpose of this paper is first, to outline the various causes of these words; second, to discuss the negative, positive, and neutral impacts of filler words on the credibility of the speaker; third, to explore the negative, positive, and neutral impacts of filler words on the comprehension of the listener; and finally, to suggest some strategies to both speakers and listeners for improving communication. By doing so, we seek to provide a reason for both speaker and listener to be more aware of these interpolations in speech and to therefore enhance communication.

Some strategies for speakers seeking to control their usage of filler words and therefore improve credibility when appropriate include slowing down, pausing to collect thoughts, or enhancing preparation beforehand. This is an important item for speakers to realize when they are preparing for a public speaking engagement. For listeners, some strategies for improving comprehension when faced with a frequent user of filler words will include focusing on the topic to glean the most important points and summarizing by rewriting the speech in their minds.

As the reader explores the following report, we invite him or her to consider the strategies provided and to implement them into his or her own life. Though much research has been done regarding

these strategies, and the authors have seen a positive impact in their own lives as they have put these suggestions into practice, the most persuasive justification for changing speech tendencies will come from one's own experience.

II. Causes of Filler Words

The causes of various speech disfluencies in verbal speech have been documented by several researchers. A speech disfluency is anything that causes a break or an upset to normal—or fluent—speech. There are several types of speech disfluencies that exist in spoken languages today, including slips of the tongue, long pauses, false starts, and filler words. For the purposes of this technical report, the conversation will be focused on the causes that lead specifically to filler words being produced in speech. These interpolations into language are caused by several different factors.

Scholars have narrowed down the causes of filler words into three categories: divided attention, infrequent words, and nervousness. Each of these activities can cause an increase in verbal disfluency, thus resulting in filler words interrupting speech. When they are combined together, the frequency of filler words and the disfluency of the speaker exponentially increase (Oomen and Postma 2001).

Divided Attention

Divided attention is caused when an individual is attempting to focus on multiple points of interest at one time. This may be manifest during speeches in which there is a distracting member of the audience or when something unplanned or unanticipated occurs. The speaker momentarily directs his or her attention from his or her speech, and often filler words creep in to occupy the void left by nonfluent speech.

In their research, Oomen and Postma found that divided attention and distractions lead to a strong increase in filler words and other

pauses in task-based activities. The results of their study indicate that the number of filler words used by participants drastically increases in situations where their attention is divided.

Infrequent Words

Filler words also appear in speech when an individual uses words that he or she uses infrequently. In the *International Journal of Language & Communication Disorders,* Dockrell et al. state that infrequent words are a major cause of the appearance of filler words. Infrequent words are simply words that we do not use on a daily basis and are therefore somewhat foreign to our mental dictionaries. Filler words, then, appear when someone is having difficulty processing a word. This means that a person's brain cannot locate a word, which will cause him or her to pause, frequently throwing *um* in its place until the word, or a synonymous word, is found and used in speech.

Nervousness

Both divided attention and infrequent word usage cause nervousness, which is another cause of filler words in speech. Once the speaker has become nervous, it becomes inconsequential whether or not these issues are overcome.

Additionally, Goldwater, Jurafsky, and Manning found that infrequent words and speaking too quickly caused a higher production of filler words (2010). Infrequent words and speaking too quickly can occur as a result of nervousness if a speaker is required to employ infrequent words. Words that people would not normally say may come into speech when the speaker is nervous because the speaker's brain is occupied with thoughts about the listeners and their opinions rather than about which words to say. The same phenomenon happens when speaking too quickly; speakers want to stop speaking as soon as possible to get rid of the feeling of nervousness and speak quickly as a result.
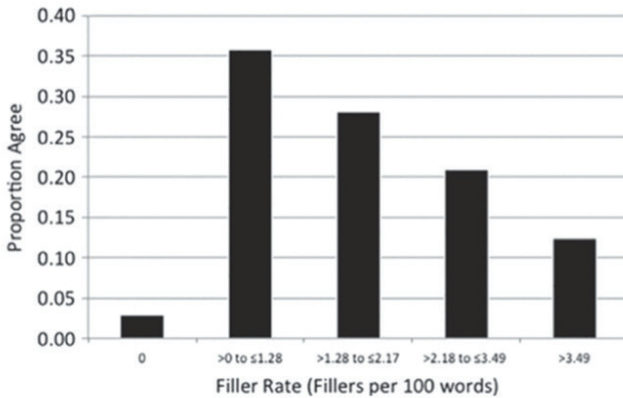
In addition to the nervousness that comes from infrequent words, glossophobia—anxiety regarding public speaking—may occur. This fear is manifest in a form similar to the well-known idea of stage-fright and can appear as a social anxiety disorder (Garcia et al. 2013. This anxiety has a direct impact on the speaking ability of the presenter and often leads to dysfunctional speech disorder. This disorder is often manifested as a quivering voice, (leading to repetitions), as well as vocalized pauses (leading to filler words). These repetitions and filler words lead to the decreased credibility of the speaker, which in turn may cause the audience to become more disinterested and thus further exacerbate the nervousness of the speaker.

III. Impacts on Credibility

Whatever the cause, scholars are split as to the positive and negative effects of these fillers on a speaker's credibility. While the majority of scholars agree that the credibility of the speaker decreases with the increase of filler words (Conrad et al. 2013), some scholars suggest that filler words positively affect credibility of the speaker (Villar et al. 2014). Yet still others believe that filler words have absolutely no effect on a speaker's credibility (Conrad et al. 2013, Pytko and Reese).

Negative Effects

Ultimately, the majority of scholars agree that the overuse of filler words ultimately negates speaker credibility. Frederick Conrad et al., of the *Journal of the Royal Statistical Society*, conducted a study wherein he recorded the successful acceptance rate of telemarketers' invitation to participate in a survey (2013). He recorded the telemarketers and examined how frequently the telemarketers used filler words. He then compared that with the success rates and found that success rates drop in proportion to the number of filler words used, especially after the number of filler words per 100 words rises above 1.28% (see Figure 1).

When Caroline Kennedy was running for the New York Senate, she conducted a live interview in order to give herself a more personal edge. However, because of her extensive use of filler words (as seen in Table 1), she lost much of her credibility. Reporters from numerous publications criticized her and claimed that her use of "cringing verbal tics . . . showed her inexperience" (Saul 2008).

Source	Filler Words per 100 Words
Caroline Kennedy's Interview	12.66
Highest Allowable Rate Before Measurable Decrease in Credibility	1.28

Table 1: Caroline Kennedy Interview

Positive Effects

There are some experts, however, that suggest filler words actually improve credibility of the speaker. Australian scholars Villar et al. studied the speech of a man who was convicted of murder and found

that when filler words were present in his speech, he was being honest. They found that when the man used filler words, more specifically the word *um*, he was considering what he would say next and, therefore, his speech was less rehearsed, much like what actually happens when we recall information when asked. They discovered that when he was lying, he used virtually no filler words. He had planned out in advance what to say before speaking in an effort to mask his lies. His filler words, though, actually added to his credibility in terms of honesty. As this case illustrates, in less formal situations, especially when judging honesty, filler words positively affect credibility (2014).

In a similar study, Villar et al. asked people to voice either a truthful or non-truthful opinion about a given topic and then indicate whether or not they had been lying. According to the report, "results showed that instances of *um* were significantly more frequent and of longer acoustic duration during truth-telling than during lying" (2014). Credibility of a speaker can be positively impacted by the use of filler words when in non-formal settings and when gauging honesty. As will be shown later, the more rehearsed speech is, the less likely filler words are to appear. Because it is more likely that someone who is lying has thought through his or her sentences more than someone who is not lying, it can be expected that the lying individual will have fewer filler words. It is important to note that this is only for impromptu inquiries, and not for prepared speeches. It would be more difficult to assert honesty by examining filler words in prepared speeches because in both cases, both the lying and the truth-telling individual could have prepared equally, therefore skewing the conclusions about honesty that filler words may have provided.

Neutral Effects

Some scholars prefer to take neither the positive nor the negative path and instead believe that filler words can have little to no impact on listeners in terms of speaker credibility if the amount of filler words is

not overly saturated or if the listener is engaged in the content or style of the speech. In other words, if the use of filler words is not emphatic or easily noticeable, then credibility is affected very little.

Frederick Conrad et al., in an attempt to specifically study the effect of filler words on speaker effectiveness, discovered that those who use filler words moderately are viewed as having the same level of eloquence as those who don't use filler words (2013).

Researchers at Longwood University similarly concluded that filler words have no impact on perceived credibility of the speaker (Pytko and Reese). However, as seen below, other aspects of communication may be affected by a speaker's use of filler words (e.g., perceived preparedness, effectiveness at public speaking, and, as will be examined in this report, ease of understanding by a listener).

IV. Comprehension of Listener

Besides the discussion on whether or not credibility is affected by filler words, scholars also devote much attention to the impact (or lack thereof) on listener comprehension. Again, scholars are split in that some believe that filler words negatively affect listener comprehension, some believe they positively affect listener comprehension, and some believe the listener comprehension may not be affected at all in some cases. In most cases, if the listener is aware of a person's use of filler words, he or she will often direct his or her attention from the content of the speech to the use of filler words, therefore negatively affecting the listener's ability to comprehend what the speaker is actually saying. However, as noted above, some scholars disagree and suggest that when a listener becomes aware of the use of filler words, it may actually positively affect listener comprehension.

Negative Effects

In regards to listener comprehension, researchers have found that disfluencies (specifically filler words) ultimately have a negative impact on the understanding of the listener (Pytko and Reese). In several studies, subjects were given instructions to complete a basic task, and the results reflected that the instructions with filler words caused less or incorrect understanding (Arnold, Brennan and Schober). Lickley and Bard conducted several experiments to see if listeners could predict what would follow filler words after they had occurred in spontaneous language. This ultimately resulted in more incorrect predictions and also decreased the listeners' understanding.

Some researches have found that listeners can tell when a speaker is nervous based on the fundamental frequency of the speaker's voice (Goberman et al.) and are, therefore, negatively affected in comprehension. When changes in voicing, such as changes in frequency, take place, the listener's attention will be drawn to other aspects of the speaker's voice, which may include the listener's awareness of the amount of filler words used by the speaker. When this occurs, not only does the listener often cognitively discredit the speaker, but he or she also often stops directing his or her attention to the content and instead to the diction of the speech, negatively affecting comprehension.

Positive Effects

Though the evidence of negative effects of filler words on listener comprehension is overwhelming, there may be some positive effects on comprehension as well. Arnold, Fagnano, and Tanenhaus of the *Journal of Psycholinguistic Research* examined the effect of filler words on listener comprehension and discovered that when participants were presented with prompts that included filler words, they were more likely to look for new information than for old. As noted above, because we often use filler words when approaching unfamiliar vocabulary or content, listeners will automatically prepare themselves

for new information to be presented, therefore positively affecting their comprehension.

In fact, some experts have shown how even variance in the filler words can make a striking difference in listener comprehension. Fox Tree has shown that "the presence of *uh* actually helps comprehension (in comparison with *um*, which was found to have no effect)" (2001).

Neutral Effects

In contrast, there has been some research that indicates little to no effect of filler words on a listener's comprehension or their perception of the speaker's credibility and ability. There are a certain set of circumstances in which this case is observed. This includes moments when the speaker does not notice or recognize the filler words. Arrowood states that to focus on filler words in public speaking training is unnecessary and reveals nothing more than an overcritical mind.

V. Conclusions and Recommendations

The overall findings of the research presented in this report lead to the conclusion that not using filler words or excessively using filler words can cause harm to a speaker's credibility. These filler words are most often caused by divided attention, the use of infrequent words, and nervousness. When filler words occur, the comprehension of the listener can be jeopardized or limited, causing the speaker to further lose credibility. The most effective speech occurs when filler words are used moderately.

Recommendations for Speakers

Speakers can take several actions to improve their ability to control their use of filler words. Several suggestions given by Goberman et

al., in extreme cases of nervousness or public speaking phobias, is to see speech language pathologists who are experts in training people to speak at an average rate, to apply breathe support, and to use vocal inflections which help engage the listener (868). Practice and training with these techniques is key to improving one's ability to speak. When speakers know they will be speaking in public, they should practice giving their speeches out loud in front of peers. This will help speakers prepare because they will then feel confident and educated in whatever topic they are presenting on. Preparation will also eliminate the filled pauses as speakers will already what they should say next.

Speakers should also remember that listeners are not as harsh as they are made out to be. Having this knowledge, speakers should relax a little bit, knowing that they are their own worst critics. In the article "Acoustic Characteristics of Public Speaking: Anxiety and Practice Effects" by Goberman et al., we see that "the illusion of transparency [which is the illusion that the speaker thinks that the listener is perceiving their speech differently than they really do] occurs when a speaker thinks his or her anxiety is more noticeable to others than it really is." Because of this illusion, speakers often become anxious, causing them to use more filler words. By adopting the mentality that listeners are not going to notice their anxiety, speakers can train themselves to ignore their own nervousness or forget it all together. This will help lessen the frequency of filler words when speaking.

It may also be beneficial for speakers to engage their listeners. By engaging listeners in the content of the speech, the listeners are less likely to notice the use of filler words. Therefore, speakers may consider inviting their audience to take notes or personally internalize the information.

Recommendations for Listeners

As a listener, there are a few techniques for improving comprehension when faced with an over-user of filler words. First and foremost, the

most important thing is to strive not to become aware of a speaker's use of filler words. When a listener is unaware, filler words have little to no effect on the listener's comprehension. However, as soon as a listener becomes aware of this interpolation, his or her attention diverges from the content and comprehension will naturally decrease. Therefore, as listeners, we should strive to practice active listening by paying attention to the content of the speech as much as possible. Listeners should strive to get the main idea instead of listening to specific words ("active listening"). This will aid the listener in avoiding awareness of filler words, which will then strengthen the comprehension.

Besides practicing active listening, as described above, listeners may also do what one experienced speaker suggests whenever he is confronted with a boring speech. He says that "When the speaker begins, I listen carefully and ask myself what it is he is trying to say. Then once I think I know what he is trying to accomplish, I give myself a sermon on that subject" (Eyring 1998). Once listeners have accomplished active listening, they can then strive to put the content into their own words.

Whatever the approach, the main idea is to focus on content. Even with active listening and rewriting in one's own mind, it may be difficult to ignore the speaker's filler words. However, comprehension should not suffer.

References

"Active Listening." *Mind Tools.* 2014. Web. 6 April 2014.

Arciuli, Joanne, David Mallard, and Gina Villar. ""Um, I can Tell You're Lying": Linguistic Markers of Deception Versus Truth-Telling in Speech." *Applied Psycholinguistics* 31.3 (2010): 397-411. *ProQuest.* Web. 26 Mar. 2014.

Arrowood, Steven. "Um, Er, Like, Uh." Web Blog Post. *The Arrowood Curve: Spitting Out Communication*. Blogger, 18 January 2013. Web. 2 March 2014.

Conrad, Frederick G., et al. "Interviewer Speech and the Success of Survey Invitations." *Journal of the Royal Statistical Society.Series A (Statistics in Society)* 176.1 (2013): 191-210. Print.

Dockrell, J. E., et al. "Children with Word-Finding Difficulties--Prevalence, Presentation and Naming Problems." *International journal of language & communication disorders / Royal College of Speech & Language Therapists* 33.4 (1998): 445-54.*ProQuest.* Web. 27 Mar. 2014.

Eyring, Henry B. "Listen Together." *BYU Speeches.* 4 September 1988. Web. 6 April 2014.

Fox Tree, J.E. (2001) "Listeners' uses of um and uh in speech comprehension." *Memory and Cognition*, 29(2), 320-326.

García-López, Luis, M. Belén Díez-Bedmar, & Jose M. Almansa-Moreno. "From Being a Trainee to Being a Trainer: Helping Peers Improve their Public Speaking Skills // De ser entrenado a ser entrenador: cómo ayudar a otros iguales en la mejora de las competencias para hablar en público." *Revista de Psicodidáctica / Journal of Psychodidactics* [En línea], 18.2 (2013): s. p. Web. 9 abr. 2014

Goldwater, Sharon, Dan Jurafsky, and Christopher D. Manning. "Which Words are Hard to Recognize? Prosodic, Lexical, and Disfluency Factors that Increase Speech Recognition Error Rates." *Speech Communication* 52.3 (2010): 181-200.*ProQuest.* Web. 28 Feb. 2014.

Oomen, Claudy C. E., and Albert Postma. "Effects of Divided Attention on the Production of Filled Pauses and Repetitions." *Journal of Speech, Language, and Hearing Research* 44.5 (2001): 997-1004. Print.

Saul, Michael. "Caroline Kennedy No Whiz with Words." *Daily News* 29 Dec. 2008: n. pag. Web. 8 Apr. 2014. <http://www.nydailynews.com/news/politics/caroline-kennedy-whiz-words-article-1.355586>.

Villar, Gina, Joanne Arciuli, and David Mallard. "Use of "Um" in the Deceptive Speech of a Convicted Murderer." *Applied Psycholinguistics* 33.1 (2012): 83-95. *ProQuest.* Web. 16 Feb. 2014.

Yarbrough, Andrew. "NY1 24 Hour Local News Politics i NY1 Web Extra i Watch The Entire Interview With Caroline Kennedy" *Youtube.* Web. 11 August 2009.

Appendix

Caroline Kennedy Interview Data

Types of Filler words	Frequency of Filler words in 00:02:32
"um"	19
"uh"	11
"ya know"	21
repetition	6
Total Number of Filler Words	57
Total Number of Words	450
Percentage of Fillerwords/one hundred words	13%