# Listener Reactions to Pseudostuttering Experiences

# Les réactions des auditeurs face aux expériences de pseudo-bégaiement

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## Abstract

This study examined listener reactions to a variety of pseudostuttering behaviors as reported by 43 graduate students majoring in communication disorders. A pseudostuttering survey was used to measure location information, student perceptions, and listener reactions. Each student completed an on campus, off campus, and phone conversation pseudostuttering experience. Descriptive statistics and qualitative analyses were used to examine trends in student reports of the type of stuttering behaviors used, listener choice, location, and perceived listener reactions. Results, based on 129 reported pseudostuttering experiences, indicated that repetitions were the most frequently reported core behavior. In general, the students reported that the majority of listeners were patient, followed by patience with confusion. Future research is needed to further examine the importance of core behavior type and listener characteristics on pseudostuttering training experiences.

## Abrégé

Cette étude a passé en revue les réactions d'auditeurs face à une gamme de comportements de pseudo-bégaiement tels que signalés par 43 étudiants diplômés se spécialisant en troubles de la communication. Un sondage sur le pseudo-bégaiement a permis de mesurer les données sur l'emplacement, les perceptions d'étudiants et les réactions d'auditeurs. Chaque étudiant s'est prêté à une expérience de pseudo-bégaiement lors de conversations sur le campus, hors campus et par téléphone. Nous avons utilisé des statistiques descriptives et des analyses qualitatives pour examiner les tendances de signalement par les étudiants du type de comportements de bégaiement utilisé, du choix des auditeurs, de l'emplacement et des réactions perçues des auditeurs. Les résultats, fondés sur 129 expériences de pseudo-bégaiement déclarées, ont indiqué que les répétitions étaient le comportement le plus souvent signalé. En général, les étudiants ont déclaré que la majorité des auditeurs étaient d'abord patients, puis patients et confus. D'autres recherches sont nécessaires afin de mieux comprendre l'importance du type de comportements et des caractéristiques des auditeurs dans le cadre d'expériences de formation sur le pseudo-bégaiement.

## Introduction

Stuttering is defined as a complex multifactorial disorder (Bennett, 2006; Smith, 1999), comprised of three main components: affective, behavioral and cognitive. This multifactorial nature of stuttering potentially affects daily activities as well as an individual's overall participation in society (Yaruss, 2007). Based on the nature of stuttering, an effective training program for student clinicians should incorporate a description of overt stuttering behaviors, thoughts or feelings associated with stuttering, and cognitive reactions to stuttering. Although in-class experiences can expose student clinicians to the basic stuttering behaviors, pseudostuttering experiences provide a glimpse of how people who stutter (PWS) are viewed by those in their environment.

## Listener Reactions to Stuttering

Several studies have reported the presence of a negative stereotype of PWS by various societal groups which includes personality traits such as shy, nervous, self-conscious, tense, guarded, anxious, fearful, and introverted (Turnbaugh, Guitar, & Hoffman, 1979, 1981; Woods & Williams, 1971, 1976). According to Smart (2001), people with disabilities often internalize such negative stereotypes and believe them as true about themselves.

Listener reactions to stuttering have often been studied in the past using varying methodologies (Rosenberg and Curtiss, 1954;Turnbaugh, Guitar, & Hoffman, 1979, 1981; Wingate and Hamre 1967; Woods & Williams, 1971, 1976; Yovetich & Dolgoy, 2001). Some studies have explored listeners' perceptions to stuttering by asking various societal groups to rate their attitudes toward PWS (Turnbaugh, Guitar, & Hoffman, 1979, 1981; Woods & Williams, 1971, 1976). In addition to self-reported attitudes toward stuttering, a few studies have also explored observed listener reactions to stuttering. For example, Rosenberg and Curtiss (1954) used an experimental procedure to study listener responses to stuttering. They specifically analyzed listener's eye contact, hand movements, and other bodily movements during stuttering and non-stuttering speech. The experimental method involved deception of subjects who were brought in to be subjects for a psychological experiment, where they interacted with a PWS or a person who does not stutter (PWDS) in the waiting room while two investigators observed and noted the listener's reactions to the two conditions. The results of this study found statistically significant differences in listener duration of loss of eye contact, frequency with which a change in eye contact away from the PWS was made, decreased initiation of hand movements, decreased duration of other bodily movements, and decreased initiation of bodily movements. Results were interpreted as indicating that stuttering significantly affected listener behavior and stuttering appears to act as a behavioral depressant to a listener.

In addition to observation of listener reactions in a controlled method using deception, studies have also explored perceptions of listener reactions by PWS. Wingate and Hamre (1967), in one such study, investigated whether PWS are prone to perceive negative reactions in listeners as a projection of their own attitudes toward their own stuttering. Twenty PWS and matched controls were shown a video of 10 people listening to individual speakers. Participants were asked to identify if the speaker in the video segment stuttered and to describe the listener's reaction. Results of this study found no differences between PWS and PWDS in the identification of speakers and descriptions of listener reactions, indicating that PWS do not project their own attitudes and beliefs about stuttering to listeners.

Similarly, Yovetich and Dolgoy (2001) explored the impact of listener's facial expression on PWS and a matched control group to investigate whether the impact of listeners' reactions on PWS differed from that of PWDS. The results of this study indicated that PWS did not show a greater tendency to assign negative attributes to listener reactions than the control group, suggesting that perception of non-verbal behavior by PWS is similar to that of PWDS.

## Listener Reactions to Pseudostuttering

Although numerous studies have investigated listener reactions to stuttering (for e.g. Turnbaugh, Guitar, & Hoffman, 1979, 1981; Woods & Williams, 1971, 1976), very few studies have explored listener reactions to pseudostuttering activities completed by students undertaking a course in fluency disorders.

Simulated stuttering or "pseudostuttering" activities have often been used to train students in communication disorders (Ham, 1990; Mayo, Mayo, & Williams, 2006; McKeehan, 1994). According to Manning (2004), engaging in pseudostuttering activities can help students better understand the nature of stuttering, thereby developing more positive relations with their clients. A few studies have explored the value of using pseudostuttering activities to prepare student clinicians to work with PWS (Ham, 1990). Ham (1990) investigated the use of a pseudostuttering activity to prepare clinicians to understand and empathize with clients who stutter. As part of the study, 24 graduate students taking an advanced class in fluency disorders were required to assume the role of a PWS and stutter in all speech contacts for the day. The students were

required to record listener reactions in a variety of speaking contexts including three phone calls and three face-to-face contacts with strangers. The students were allowed to inform family and friends that this was part of an assignment, however, were asked to not disclose this information to strangers. All students reported to be tense while completing the assignment, while a few reported being terrified. An analysis of listener responses indicated that the students perceived the reactions of a majority of strangers (76%) and known contacts (72%) as negative. Negative auditor reactions were described as frustration, agitation, embarrassment, anxiety, rudeness, and curtness. Overall, the results of this study indicate that a majority of responses to pseudostuttering were perceived negatively irrespective of the student's familiarity with the listener. A limitation of this particular study is that it failed to collect data on the type of core stuttering behavior used by students completing this activity. There is also no information about the students perceived severity of pseudostuttering at the time of recording listener reactions. This additional information would be very helpful in a clinical setting to judge what overt stuttering behaviors are perceived more positively by listeners and whether the use modification techniques would impact listener reactions.

In a similar study, McKeehan (1994) investigated listener reactions recorded by sixteen graduate students who applied commonly used fluency facilitating strategies for seven days, simulating the treatment experiences of clients. The students recorded listener responses to their speech when using these strategies. Information about familiarity with the listener was also recorded. For analysis, student reports of listener reactions on the first and fourth day of the assignment were analyzed. Analysis of student reported listener reactions indicated that on the first day, students coded nearly equal numbers of neutral and negative responses (43% neutral; 41% negative). On the fourth day, after gaining more experience with using the fluency facilitating strategies, an increase in the number of listener responses coded as neutral and a decrease in responses coded as negative for both familiar and unfamiliar listeners. The results of this study are encouraging and indicate that listeners are more likely to have neutral responses to fluency facilitating strategies; which improves over time as the speaker becomes more comfortable with the use of these strategies. The study however, does not list exact strategies used and perceived reactions to each strategy. This would provide the reader with information about what strategies appear to be the most acceptable or least distracting to listeners.

Mayo, Mayo, and Williams (2006), investigated affective, behavioral, and cognitive responses of students completing a pseudostuttering exercise as part of their graduate coursework. The study reported that almost all participants reported a desire to avoid pseudostuttering and listener responses to their pseudostuttering. Additionally, all students reported feeling high levels of anxiety while completing this activity and 97% reported negative listener reactions. The students further reported that they anticipated negative listener responses and many students expressed anger and humiliation over their listeners' reactions. Overall, this study not only provides the reader with information about possible perception of listener reactions to stuttering, but also provides an insight to the speakers' cognitive and affective responses to stuttering and the act of speaking itself.

## Need for this study

In the past, pseudostuttering activities have been used to help students in the field of communication disorders increase empathy and gain a better understanding of the client's perspective. A few published studies (e.g., Ham, 1990; Manning, 2004; Hughes, 2010) have discussed various aspects of the pseudostuttering including its impact on the students completing the pseudostuttering activities, the listener reactions reported by the students, and the students' thoughts/feelings about the exercise. This has been accomplished in the past by the use of various methodologies of data collection and analysis.

The present study expands on the findings of previous explorations of pseudostuttering with a specific emphasis on listener reactions to pseudostuttering, as reported by graduate students, and various variables that could impact these perceived listener reactions. This study specifically explores perceived reactions based on the specific types of core behaviors used, whether secondary behaviors were used, and the content of the conversation. Students' reports of listener reactions to various core behaviors in different situations were also determined. It should be noted that the aim of this study was to report on the speaker's (in this case graduate students) perceptions of listener reactions. Thus, the data reported in the study might not necessarily be the actual listener reaction, but the perception of the speaker. A highly controlled methodology for data collection was implemented in order to answer the following research questions:

1.  What types of core and secondary behaviors are students more likely to use during pseudostuttering experiences?

2. What is the relationship between the core behaviors performed during pseudostuttering experiences and perceived listener reactions?

3. What is the relationship between the content of pseudostuttering experiences and perceived listener reactions?

## Methods

### Participants

The participants consisted of 43 first year graduate students at a southwestern university. All students were majoring in communication disorders and participated in the study while completing a graduate course in fluency disorders. The data from the student's pseudostuttering assignment was used for the current study. Students signed an informed consent for their data to be used in the current study. While a total of 55 students completed the pseudostuttering assignment, 43 students signed the informed consent and agreed to be included in this study. Forty-two participants were females between the ages of 22 and 50 years and one participant was a 22 year-old male.

### Procedures

Participant training. The project consisted of three individual components: observations, training, and out of class experiences. The participants viewed educational video clips of children and adults who stuttered. After viewing each clip, the instructor led a discussion on a specific topic related to stuttering (e.g. core behaviors, feelings of those who stutter, and genetic components of stuttering). Next the students practiced pseudostuttering for three in-class training sessions. The training was completed in the following format: (1) the instructor modeled the target behaviors, (2) the students practiced the behaviors independently and (3) the students practiced the target behaviors within small groups.

During the first training session, the students learned how to pseudostutter using the core behaviors of stuttering (i.e. blocks, prolongations, and repetitions). During the second training session, the students learned how to incorporate secondary behaviors and primary physical concomitants in their moments of pseudostuttering. The secondary behaviors modeled by the students included eye blinks, foot tapping, and head jerks. For the final training session, the students practiced pseudostuttering during a discussion with a partner. During each session, the students were required to write the stuttering behaviors that they modeled and how they felt about the pseudostuttering

experiences. The written information was for the students records and was not kept by the instructor.

Data collection. The out of class experience consisted of each student completing a pseudostuttering experience within three different locations; on campus, off campus (or community), and during a phone conversation. Students completed a custom pseudostuttering survey (Appendix A) for each location. The focus of this current study was to analyze the students' description of listener reactions to their pseudostuttering in relation to the type of core behavior used, presence of secondary behavior, and content of the conversation. The students were required to observe and document the listener's initial reaction immediately following the situation in which pseudostuttering was used.

### Data Analysis

Quantitative analysis. Descriptive statistics were calculated for all responses to forced choice questions on the custom questionnaire. This included information about the type of stuttering behavior used, secondary behaviors used, the content of the conversation, and perceived listener reactions reported by the student. For the purpose of this analysis, perceived listener reactions were coded using thematic analysis as described in the section below.

Qualitative analysis. The qualitative data for this study consisted of open-ended responses about listener reactions submitted by each student following the completion of the three pseudostuttering experiences. The data was analyzed using categorizing strategies including coding and thematic analysis (Maxwell, 2005). This analysis was completed in four steps as displayed in Figure 1. The first step involved familiarizing oneself with the data. All open-ended responses were read in full by the first author to determine relevant topic areas. The second step of this process involved identifying several statements representing a common theme. The statements were then highlighted within and between participants thereby identifying codes. After completing this task, similar codes were clustered together to generate themes. The themes were coded numerically to allow for frequency counts.
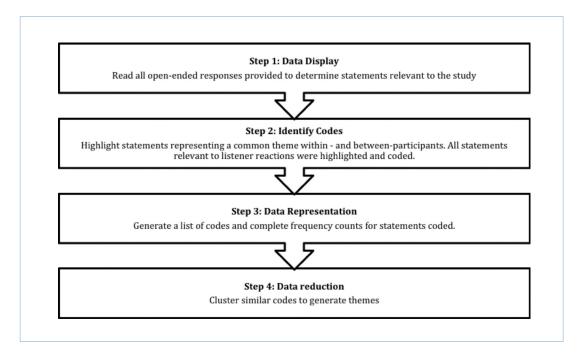
Figure 1. Steps in qualitative analysis.

To enhance reliability of this analysis, the second author coded all responses independently. The numerical codes were used to allow for a statistical comparison to determine inter-judge reliability. A Pearson's Product Moment Correlation (PPMC) was then conducted to confirm inter-judge reliability of the themes. Results of this analysis indicate a significant positive correlation ($r = .779$; $p = .000$).

## Results

### Core Behaviors during Pseudostuttering Experiences

In general, the student participants reported that the on campus pseudostuttering experiences occurred in public settings (e.g. library and bookstores). Students reported completing a total of 129 pseudostuttering situations. During the pseudostuttering experiences, the students reported using repetitions ($n = 29$), repetitions combined with prolongations ($n = 27$), a combination of blocks, repetitions, and prolongations ($n = 25$), a combination of blocks and repetitions ($n = 20$), followed by relatively fewer instances of a combination of blocks and prolongations ($n = 11$), blocks exclusively ($n = 9$) and prolongations exclusively ($n = 8$). "Repetitions" was the highest occurring core behavior during phone conversations ($n = 12$). This is displayed in Figure 2. Additionally secondary behaviors accompanying moments of stuttering were used more in community locations ($n = 16$) than campus locations ($n = 10$). Additionally, students used secondary behaviors in only 20.3% of all pseudostuttering experiences ($n = 26$).
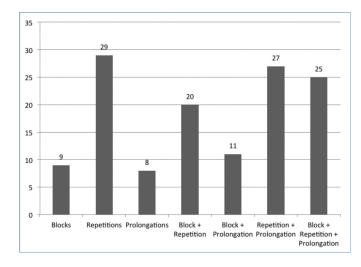


Figure 2. Frequency of core behaviors used.

### Listener Reactions

Qualitative analysis. Student reports of various listener reactions were read by the primary author and coded using thematic analysis, as described in the methods section. Thematic analysis of this particular data set yielded six main themes: Patience; Patience and Confusion; Confusion/Uncertain; Frustration; Active Help; and No reaction.

The first theme, "patience" was used to code reactions that indicated the listener appeared unfazed by the pseudostuttering and did not interrupt the speaker or make the speaker uncomfortable. Some examples from this theme include:

This individual to my surprise was really nice and just smiled and kept looking at me and waited for me to finish. I wanted to ask what her major was after that cause I didn't expect a reaction like that.

He actually had no visual response. He was polite and waited quietly.

The second theme, "patience and confusion" was used to code reactions that indicated the listener appeared shocked or confused at first; however, gathered themselves and were patient and comfortable to talk to after the initial surprise/discomfort with the act of pseudostuttering. Some examples include:

This lady was [momentarily] surprised but was very calm. I think I saw in her expression that she was prepared to have patience. When I told her it was an assignment and that I didn't really stutter, she said she knew someone who stuttered so she "was kind of used to it."

I was so nervous that it began to feel like I was really stuttering. I tried not to make eye contact in the moment of my stutter but afterwards he just kind of looked at me, but did not laugh or make other remarks. I don't think he was expecting me to stutter.

It is interesting to note that one student (see quote above) felt compelled to disclose to the listener that this was a class assignment. While instructions did not particularly discourage students from disclosing, this example is a demonstration of how powerful this activity can be for some students that they feel the need to disclose, a luxury not available to PWS.

The third theme, "confusion/uncertain" was used to code listener reactions that were reported to indicate the listener was either surprised or confused by the pseudostuttering behavior that was easily noticed by the speaker. This includes acts such as giggling or looking surprised, for example:

I was at the Tap Room and asked the waitress what was good to eat here at the Tap Room and stuttered while I asked her. She gave me a really weird look and wasn't sure what happened I don't think. She just repeated what I ordered after we had the stuttering incident.

The cashier was smiling at me, saying "thanks," and handing me my receipt.

When I started blocking she stopped smiling.

The fourth theme, "frustration", coded listener reactions that clearly made the speaker uncomfortable and indicated the listener expressed some form of frustration, including but not limited to making the speaker feel embarrassed or rushed, for example:

He seemed annoyed I was even asking a question and the stuttering appeared to perplex him slightly. He barely looked at me.

Avoided eye contact once repetitions were severe and took a long time. Rephrased questions so that I wouldn't have to talk as much. Cut me off by giving me the answer when I attempted to ask another question.

The fifth theme, "active help", was used to code a single reaction reported where the listener attempted to "help" the student by completing the sentence for her. This code was used because the participants' reported perceiving this as a good intention on part of the listener and is also often reported by clients attending therapy. An example of this theme includes:

The woman was great. I guess because she is a leasing agent she is used to communicating with different types of people. The only response she gave was completing my block, "guarantor."

The last theme, "no reaction" provided was used when students did not provide a description of the reaction they received from their listener in a particular situation.

Quantitative analysis. Overall the listener reactions on campus were categorized as "patient" ($n = 16$). The lowest rating for listener reaction at campus locations was equal for "frustration" and "active help" ($n = 3$). Listener reactions for community locations had the highest rating for both "patience" and "patience and confusion" ($n = 11$) and the lowest rating for both "frustration" and "active help" ($n = 2$). Listener reactions during phone conversations were not coded due to the nature of the activity. Students were asked to provide listener reactions for only face-to-face encounters and not the phone conversations.

Frustration and active help. The categories of "frustration" and "active help" could represent areas of great concern for people who stutter. Therefore these two categories were examined in more detail. The "frustration" category was used more in situations when

the student used all three core behaviors of stuttering (i.e. blocks, repetitions, and prolongations; n = 3). In terms of content, "frustration" was found more in instances of asking for directions and "ordering a product" (n = 2). Active help was reported in the "other" content category (n = 2). In total, participants reported very few listener reactions that fit the theme of frustration (n = 5) and active help (n = 5). Thus the categories of frustration and active help accounted for only 11.5% of listener reactions reported.

Interestingly, the majority of listener reactions coded as "patience" were in response to the use of repetitions (n = 8) and the theme "patience and confusion" was reported most often when the participants used a combination of repetitions and prolongations (n = 10).

Location and content of pseudostuttering activity. Analysis of the types of core behaviors used by students in the three different locations (campus, community, and phone conversations) is displayed in Figure 3. This indicates that students demonstrated a clear preference for using repetitions (n = 29) or a combination of a core behavior that included some form of repetition over the prolongations and blocks, especially during phone conversations.
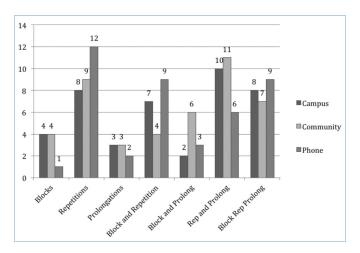


Figure 3. Type of core behaviour performed on campus, in the community, and the phone.

An analysis of the content of conversations in which pseudostuttering was used indicate that most students used pseudostuttering while ordering a product (n = 46; e.g. at the store or restaurant), asking for directions (n = 21), or seeking advice (n = 12; for e.g. at the library). Thus, a majority of the pseudostuttering situations were completed with a person at work in a service industry. Analysis of the perceived listener reaction based on the content of the conversation (Figure 4) indicates "patience" as the dominant theme (n = 28), with "patience and confusion" (n = 23) as the second most recurrent theme.
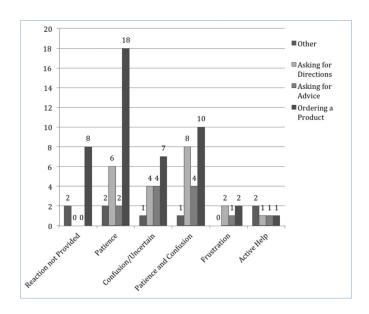


Figure 4. Relationship between the content of conversation and the perceived listener reaction.

## Discussion

The purpose of the present study was to expand on the current knowledge about perceived listener reactions to pseudostuttering exercises as reported by graduate students in communication disorders. Additionally, the study also examined the relationship between the core behaviors performed and the perceived listener reactions.

In order to gather this information, 43 graduate students enrolled in a course in fluency disorders completed the pseudostuttering activity in three different locations (on campus, off campus, and telephone) and recorded information such as the type of stuttering behavior used, secondary behaviors used, and perceived listener reactions for each face-to-face situation.

The results of this study indicated that students showed a clear preference for the use of repetitions, or a combination of repetitions and prolongations over other core behaviors. Further, the type of core behaviors used also varied based on the situation, with repetitions being used with the highest frequency during phone conversations. The study did not ask students to explain their choice of locations and/or behaviors chosen; however, it is important to understand why the students chose to use repetitions most frequently and its possible clinical implications. Future studies could add a qualitative component requiring students to discuss why certain behaviors were preferred over others, when given the choice. From a student training perspective, requiring students to discuss their selection of behaviors could also help the students gain more clinical insight and possibly more empathy for their clients.

One can assume that students showed a preference for repetitions on the phone to ensure the listener heard the moments of stuttering. This also prevented the listener from abruptly ending phone calls prior to the student's pseudostuttering. Future studies could measure student reported anxiety in similar situations when they are allowed to choose the type of stuttering behavior versus when they do not have a choice. Clients who stutter do not always get to "choose" the core behavior to be used in various situations. Therefore a pseudostuttering activity with more strict guidelines about what behaviors are to be used would provide students with a more realistic experience, closer to their clients' daily experiences. Controlling for the type of behavior used in each situation would also simulate stuttering more closely.

Interestingly, the students perceived listener reactions were most positive when they used core behaviors of either repetitions or a combination of repetition and prolongations. Clinically, this could have significance because often the initial stages of a stuttering modification program requires the client to identify a moment of stuttering such as a block and use post-block or in-block corrections. These corrections are often taught by asking the client to use the bouncing technique where a client is asked to repeat a stuttered word or syllable several times with an easy, very relaxed production (Yairi & Seery, 2011). Thus, further exploration of whether listeners are more receptive to the use of repetitions and/or a combination of repetitions and prolongations, using a variety of methodologies would have immense clinical value.

It is also important to note that students used secondary behaviors in only 20.3% situations. This is important because it indicates that most students probably regarded secondary behaviors as undesirable and hence chose not to use them in a vast majority of the situations. This finding also has important clinical implications and should be brought to the attention of clients and student clinicians alike.

A promising trend reported by students completing this activity is the type of reactions recorded from a variety of listeners from both on-campus and off-campus locations. A vast majority of the listeners were reported to be patient and good listeners, and a few were reported as looking confused or shocked at first. A very small number of listeners (*n* = 5) were reported as being frustrated with pseudostuttering or reported to complete a sentence/word during a pseudostuttering situation (*n* = 5). This trend is extremely promising and indicates that a large majority of listeners are in fact sensitive to, and respond appropriately to stuttering, especially in the service industry. This is similar to the trend reported by McKeehan (1994) that a majority of listener reactions were found to be neutral.

### Limitation and Directions for Future Research

One possible limitation of this study is the duration of the pseudostuttering exercise. Students were required to complete only three situations for this study. A recent study by Hughes (2010) reports the benefits of extending the duration of the pseudostuttering exercise and demonstrated that students spent more time pseudostuttering as they gained more experience and experience a decrease in anxiety.

Future studies in this area could use a mixed method paradigm that includes a semi-structured interview or focus group with students following the completion of this activity with a focus on their experiences and strategies regarding choice of core and secondary behaviors used. Additionally, in the future, studies could also debrief the listener and request a semi-structured interview with the listener to gain a deeper understanding of the listener's perspective.

Further, it would also be important to require students to complete this activity in pairs. One team member engages the listener while both members independently record the listener's reaction to the pseudostuttering. This will help determine if there is a difference in perception of listener reactions based on the students' perception of self while using pseudostuttering in a conversation. Currently, we only recorded listener reactions as perceived by the students. Each individual however, would differ in his or her perceptions of listener reactions. Thus, the listener reactions reported might not always be the actual reactions of the listener; however, the goal of this study is to simulate the experience of stuttering and gain perspective of listeners' reactions as perceived by the speaker. A recent study by Rami, Kalinowski, Stuart, and Ratstatter (2003) found that students rated themselves negatively on a semantic differential instrument assessing 25 dimensions of personality immediately after completing a pseudostuttering activity on the phone. There is no information or knowledge about how that negative self-assessment might impact a student's perception of listener reactions and needs to be evaluated further.

While this study and previous studies have demonstrated a promising trend of neutral to positive listener reactions, it is important to note that none of the studies controlled for the type of core behavior used and whether secondary behaviors were used in the interactions. This has always been left to the discretion of the students completing the activity. It was found in this study that students showed a preference for part-

word repetitions or a combination of core behaviors that included part-word repetitions. It would be interesting to see if there is a difference in listener reactions if the study controlled for the core behavior used. That would also be ideal from a pedagogical perspective because students would then simulate stuttering more closely, where the speaker does not always chose core behaviors and/or the presence of secondary behaviors in different situations.

A thorough search for literature yielded only two studies addressing the projection of negative feelings by PWS (Wingate & Hamre, 1967; Yovetich & Dology, 2001). These studies indicated that PWS did not show a greater tendency to assign negative attributes to listener reactions than control groups. Future studies could further explore this concept by matching graduate speech-language pathology students with PWS to look for differences in perceived listener reactions by both groups in real life stuttering situations.

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## APPENDIX A

Name: _____

Please fill out this information immediately after each pseudostuttering experience:

Location:                     Campus                    Community                    Phone

Gender of person you spoke to:          M                    F

Type of psedostuttering performed:

Block/s          Repetition/s          Prolongation/s

Secondary characteristics used:          Y                    N

Content of your conversation (circle one):

Asking for directions                    Asking for advice                    Ordering a product

If it was a face to face interaction, please describe the person's initial reaction:

_____

_____

_____