

**The Infiltration of Hedging and Rising Terminal Pitch in an
ASL to English Interpreted Presentation**

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Abstract

Interpreting from ASL to English requires an interpreter to accurately portray a deaf individual's character, personality, and language. This representation is accomplished through the language the interpreter uses and their way of speaking. When an interpreter's own language infiltrates an ASL to English interpretation, this can lead to a misrepresentation of the deaf individual and provide a poor perception by a hearing audience. This research examines common weak language occurrences of hedging (e.g., you know, kind of, so) and rising terminal pitch (ending clauses or statements with an upward inflection). A linguistic analysis of an ASL to English interpretation was conducted to find influencing factors that lead the participant to employ hedging strategies and/or utilize rising terminal pitch within the interpretation. This research impacts current interpreters and interpreter training programs by providing opportunities for further training and intentional practice targeting perceptual challenges caused by hedging and rising terminal pitch. The analysis allows for future research to further assess the influencing factors of an interpreter's language patterns and the impact had on effectively representing deaf individuals through ASL to English interpreting.

Section I: Introduction

Problem

One of the biggest responsibilities of an interpreter as required by the Registry of Interpreters for the Deaf (RID) Code of Professional Conduct (CPC) is to “Render the message faithfully by conveying the content and spirit of what is being communicated, using language most readily understood by consumers, and correcting errors discreetly and expeditiously” (2005, p. 3). Many interpreters are taught early on how to self-analyze the information received and message being rendered while still accurately representing the personality, character, and intended language of the deaf individual. However, when an interpreter’s own language and speaking style infiltrates an interpretation, the deaf individual can be misrepresented, skewing the perceptions by the intended audience.

Interpreters often work within professional settings, such as those that include presentations and meetings. Through this work, they provide an interpretation of professional content; however, even hearing individuals can be unaware of the necessity for an interpreter not only for the deaf individual(s), but for themselves as well. While the everyday American may recognize interpreters for what they do interpreting performances, lectures, presentations, and addresses made on television by political figures, sign language interpreters are less recognized for their responsibilities in interpreting from ASL to English.

In learning the language and art of interpreting, most sign language interpreters are taught how to self-analyze the interpretation they express while also finding how they could improve. Books have been released that list errors possible with the interpretation itself to assist in the analysis of the interpretation. Books such as those written by Taylor (2002) provide a holistic look at the interpretation provided but do little to emphasize the importance of matching the

intent and personality of the client (deaf or hearing). There are multiple ways that an interpreter can throw off an interpretation's intent and throw off the portrayal of the deaf individual's personality.

The incorrect portrayal through an interpretation can cause an inappropriate judgment of that individual to be made by the audience of the interpretation. It can cause some to perceive as though talking down to and/or belittling through the intonation and word choices of the interpreter. MacDougall (2012) asserts that an interpreter's style of speech can infiltrate into their ASL to English interpretation and cause a misrepresentation of the deaf individual. In an article with RID, MacDougall highlights two main areas that can lead to this inaccurate representation of deaf speakers. These areas are politeness/hedging, and intonation/pitch. Studies exist that address an audience's perception of a deaf individual. The findings focus on specific linguistic features themselves, but do not dive into what influential factors lead to their utilization of the features.

Question

How frequent is the infiltration of hedging and rising terminal pitch within an ASL to English interpretation for a deaf presenter and what influencing factors lead to the utilization of these strategies?

An interpretation can become infiltrated with these styles of speech unconsciously, thus causing the possibility for a misrepresentation of the deaf individual. Knowing the influences that lead to the use of hedging strategies and rising terminal pitch will give revelation to new intentional practice activities. Sowa and McDermid (2018) recognize an earlier stated point that self-reflection and learning are key to an interpreter's success and are valued by both novice and

seasoned interpreters. The success of this research will help provide specific areas to analyze during self-reflection and to use as a focus for training opportunities.

Section II: Literature Review

Definitions

- *Register* refers to the meaningful linguistic communication structures including prosody, lexical and melodic contours, verbal signs, or non-verbal behaviors. (Agha & Frog, 2015)
- *Hedging* is defined as plausibility shields and informal/polite language (e.g., uh, you know, kind of, sort of, possibly, so). Feyne (2015) refers to hedging in conjunction with the pauses typically surrounding hedges as discomfort markers and states that with these, interpreters can have an impact on the “perception of professionalism of deaf speakers” (p. 64).
- *Rising Terminal Pitch (RTP)*, otherwise termed as uptalk, refers to declarative statements that have a final rise in intonation without the intention of suggesting a question (Tyler, 2015)
- *Cognitive Processing Time*, also termed lag time, is defined as “the period of time between the source language utterance and the target language rendition” (Cokely, 2014).

Hedging

According to Lokoff (1972), feminine speech is suggested, and hedging is considered a feminine quality. However, this idea has since been challenged by the work of Tannen (1993) among other researchers who have shown that the feminine vs masculine speech gaps are closer than they were first made out to be. Furthermore, Dixon and Foster (1996) argue that hedging for women is considered a technique of expressing warmth rather than indecision or a lack of

confidence; however, men more frequently use hedges as plausibility shields. Thus, hedging is technique used by all in regular speech patterns.

Clemen (1997) considers hedging to be synonymous with politeness markers and defines them threefold in use for “avoid[ing] making decisive statements, use of evasive or deliberately vague language, or to avoid answering a question or committing yourself to something” (p. 236). Vagueness, to Clemen, is one of the many strategies employed by hedging. Clemen looks deeper into reasons for the use of hedging and vagueness within verbal languages but did not look at it in terms of prosody related applications and non-verbal communications. According to Clemen, hedging used correctly can result in “mitigation, putting things into a relative aspect, avoiding unnecessary risks, taking into account possible objections, being vague, reserved or restrictive ... [while] still observing the maxims of politeness and modifying the responsibility for the truth-value and/or precision of a proposition” (p. 244). Clemen also notes hedging behaviors maintain strong correlation with the use of politeness strategies within verbal communication. This expresses the desire for the speaker to maintain face.

Fraser (2009) recognizes that hedging can be utilized to limit the potential of threatening reputation or supporting the possibility of saving face. Through Fraser’s study, we find multiple examples of what hedging can look like. Hedges like ‘sort of’, ‘technically’, ‘very’, ‘absolutely’, and more as “hedged performatives” (p. 5) that add vagueness or weakened language to statements. Hedges are also broken down into “adverbs/adjectives, concessive conjunctions, indirect speech, introductory phrases, modal adverbs,” (p. 12,13) and more. These hedges range from definitive statements that overemphasize or statements that show an indecision or desire to remain unclear. All of which can point toward the desire to maintain positive face and decrease the possibility for incorrect statements resulting in negative face.

Wang (2010) acknowledges further the desire to maintain the face of both sides. It is acknowledged that language is utilized to explain the cognitive thinking of humans to the world which is infinite. However, the vocabulary within the language a person possesses is finite and limiting, leading to the expression of weak language and/or hedges. Wang emphasizes that hedging can be effectively utilized through all languages to preserve face and keep the relationship of the individuals engaged within conversation. When used appropriately, hedging can be effective in minimizing perceived criticism and increasing people's acceptance of new perspectives. Incorrect usage of direct language can come across smug, arrogant, and pompous. Wang states that hedging can be utilized through making assumptions and adapting language to the context surrounding to maintain the messages intention. Overuse of hedging can point to an over-assumption of listener knowledge and derail the intent and focus of a message.

MacDougall (2012) recognizes this apparent need of face saving, defining face as being perceived well by others; that a person can achieve face through use of vague language. Face saving within the ASL to English interaction involves the interpreter considering the perceptions of hearing society and culture rather than solely considering the deaf perspective. MacDougall puts forth that subconsciously saving face within the mainstream hearing society can be more important for the interpreter to consider than delivering the message with full consideration of the values of deaf culture. This can negatively impact the connectedness within communication and within the relationship with the speaker, whether this occurs through misrepresentation of the source language, or an oppressive position of placing the interpreter's perceived appearance over the deaf individual's perceived character.

Hedging is further defined by MacDougall (2012) as "ways to avoid appearing too direct or assertive with another and to form connections within a conversation" (p. 23). Hedging

includes additive phrases such as ‘sort of’, ‘kind of’, softened phrases such as ‘I think’, ‘could’, ‘perhaps’, and utterances like ‘um’, ‘uh’, ‘well’, and overutilization of ‘and’ and ‘so’. Hedging is considered a way to soften the language to reduce opportunities of offense. Hedging is also referred to by Feyne (2015) as discomfort markers that when used by an interpreter, can impact the “perception of professionalism of deaf speakers” (p.64). Feyne also includes unnatural pauses within this definition. A final aspect of hedging as described by Ginsburg, Vleuten, Eva, & Lingard (2015) includes those described as plausibility shields. “Plausibility shields introduce an element of doubt by allowing the speaker/writer to indicate that s/he is less than fully committed to the truth of the statement” (p. 180). This presents an intriguing aspect to the interpreting profession as interpreters can have issue committing to the truth behind their own statement as the appropriate interpretation.

Rising Terminal Pitch

MacDougall (2012) notes that pragmatic judgements are made based off prosodic features of the voice, including pitch. Individual speakers, or interpreters have control of their voice production. Therefore, language produced by the interpreter has the power and influence to generate social images and perceptions. Such social images are communicated through variation of pitch, which often indicates authority and/or specific emotions of the speaker. It is not beyond reason to expect that the style or delivery of language by an interpreter can make a heavy impact on the creation of a social image for a deaf presenter. In fact, MacDougall also notes that weakened language, such as hedging with phrases of little conviction while interpreting can lead to a disinterested audience who have written off the deaf presenter just by the way an interpreter communicates.

Tyler (2015) analyzes the use of RTP (uptalk) and looks at how it is perceived randomized samples of people. In the first experiment of the study, participants were asked to listen to vocal audio samples where the speaker used RTP, then answer a series of questions about the clip they listened to. Some questions asked were to hypothesize the reason a speaker would use uptalk in these scenarios, express their opinion of the usage of uptalk, explain what they think they learn about the speaker through their use of uptalk, and make further comments not yet mentioned about the clip. Perceptively, participants deemed that the samples show the speakers are using a natural form of their own speech as opposed to a more formal version. However, they also described the style of speech as “aggressive, dramatic, annoying, and disturbing/high/almost painful” (p. 292). Other perceptions include insecure, unsure/not confident, lacking intelligence on the subject, or lacking significant knowledge of what was being discussed.

In a secondary experiment, Tyler (2015) manipulated speech samples to show natural rises in terminal pitch compared to altered samples that end on a fall. This study had sixty new participants score on a 1 (strongly disagree) to 5 (strongly agree) scale on 11 criteria; Whether the speaker was “excited, speaking clearly, happy, certain, confident, intelligent, annoying, finished talking, showing emphasis, paying attention, and young” (p. 295). Based on the results of the second experiment, individuals with a natural rise in terminal pitch were mostly voted as being happier, emphasizing more often, and perceived as young. In addition, Tyler found that when listeners perceived the speaker to be younger, listeners typically, though indirectly, perceived the speakers as more annoying.

In the final experiment of the study, Tyler (2015) had 120 total participants (60 new, 60 from the first experiment) listen to audio samples from the experiment one that were deemed as

“stereotypical samples” (p. 299), samples with multiple over-emphasized increases in terminal pitch at the end of clauses, statements, or sentences. Participants then rated on the same 1 to 5 scale for the same 11 criteria as the second experiment. Highest scores show the speakers were perceived as younger and more emphatic while also being more “excited, confident, certain, and happy” (p. 300). The lowest scored samples indicated the speaker was perceived as unfinished with their train of thought and less intelligent. Considering the results of all three studies, it is clear to see that rising terminal pitch (RTP) is typically perceived negatively by an audience of listeners. ASL interpreters who use this style of speech can disempower an interpretation and decrease the presenter’s credibility to their audience.

Interpreter Influence on Listener’s Perception

Roy (1987) examines the impact of sign language interpreter through the process of ASL to English interpreting a presentation given by a deaf presenter on the Stickleback fish. Roy acknowledges studies that exist examining the equivalence of source and target language. However, Roy’s study examined the language utilized by the sign language interpreter and the message produced to see if the interpretation itself had standalone value. The source language is what guides the production of a target language interpretation; however, the interpretation is what the audience hears and bases their perception of the speaker upon. Therefore, a hearing audience is unaware of any deviation that occurs from the source language.

The interpretation utilized was filmed in front of an audience of ASL students who commented on the interpretation. Roy made an important observation after the analyzing student comments. The students complemented the interpreters on their work but were not listening to the interpretation. Rather they listened “for all those English words and sentences” (p. 140). The students listened to see if what they saw was vocalized in the ASL to English interpretation.

Hearing participants with no ASL knowledge were asked to listen to the interpretation audio but were not informed that they were listening to an interpretation. Roy asked the participants of the study to identify the topic of the presentation, and in response to this question, all participants correctly recognized the topic. Roy also asked about the intent of the lecture to which the research participants incorrectly assumed the target audience was adolescent rather than adult. Roy suggests that the increase in tone, mis-applied emphasis on words (emphasizing an elongated “thou” in the phrase ‘thousands of them’), pitch, and specific word choices made by the interpreters, such as “little baby fish” and “their big belly”, are what cause the interpretation to diverge from the source and the intended audience.

Thirty years later, Feyne (2015) examines the impact that language use by sign language interpreters has on the credibility of a deaf person in an interpreted situation within the mind of the hearing individual. Feyne explains from the perspective of a layperson, sign language interpreters are experts and thus provide verbatim interpretations of the deaf client for whom they interpret. This is not true for interpreters of any kind, including ASL interpreters. Interpretations provided may include most of what is signed/spoken but can also be defined as an interpretation. Feyne takes the time to explain areas that lead to a deviation from the source material within an interpretation. Specifically, Feyne narrows these down to four main domains: Linguistic resources (language that doesn’t match the professional register), discourse-level interpretation choices - vocabulary choices of the interpreter, discomfort markers - including pauses, hedging, fillers, and uptalk, and interpretation process artifacts - incohesive moments while interpreting.

In this study, Feyne (2015) looks specifically at the impact hearing interpreters’ interpretations have on the perception of listeners on a deaf museum docent. The interpreters

provided simultaneous interpretations that were later rated by museum staff. A simultaneous interpretation is a style of interpreting that involves speaking while signs are still being shared with minimal delay. Raters were required to mention anything that was off about the comments made and include the language that caused them to mention the specific point. Following the ratings and comments, Feyne later analyzed the interpretations to find which of the four domains may have had influence.

The interpreters shared that their own interpretation could be considered within the realm of “their practice in general” (p. 56), or standard practice for sign language interpreters. Feyne (2015) found that the museum staff utilized only the interpretations in their ratings and showed signs of applying their opinion on the interpretation to the deaf individual. This being the case, the perception and attachment of judgment on the identity of the deaf person is found by hearing peers in the interpretation made.

Lawrence (2018) dives into the impact interpreters have on the perceptions of others specifically in the court room setting. While this research does not look specifically at ASL interpreters, it does analyze spoken language interpreters with a focus on Spanish to English Hispanic interpreters and how their language use and representation of a client changes the court room perception. Lawrence conducted a mock trial involving Hispanic interpreters and clients, where participants were to answer questionnaires regarding their perception and decision on the trial. The court room setting is a place where representation is vastly important in the decision to be made about a person. While some negative perception is tied to stereotypical exacerbations of the Hispanic culture, interpreter presence and use can also have negative impacts. The study utilized three Hispanic males. One who was unaccented and English speaking, one English speaking with a Spanish accent, and one Spanish speaking with a female Hispanic interpreter.

When represented through an interpreter, individuals want to be accurately represented to show their true nature and true self. Lawrence (2018) found within the research that having an interpreter had little effect on the outcome of the court case as those with interpreters fared the same as those without. The type of crime committed was one of the stronger indicators of influence on the mock jury. While previous research showed female interpreters may have a positive impact on the interpreting situation, the doctoral study did not show correlating results. Furthermore, the study found that “manner of testimony delivery and individual attitudes” had potential for impact, though limited by the method. This research looked at the interpretation experience holistically as opposed to individual areas that may impact the interpretation.

Fitzmaurice and Purdy (2015) provided a look at interpreting and perception from a different lens. In their research, they examine how pauses that occur unnaturally and interrupt the flow of communication impacts the overall perception of the deaf person interpreted for, the interpreter, or the message delivered. They first investigate what pauses do for communication in spoken English language within American culture finding that pauses cause embarrassment for the speaker should they occur out away from typical use (e.g., turn taking, syntactic boundary markers, and planning (p.2). They also find that ASL pauses typically occur in the same manner as those in English.

Fitzmaurice and Purdy (2015) found that in the interpreting process, interpreters use filler words/signs to fill pauses to avoid loss of turn in communication. These pauses are the ones that occur regularly and when brief, they allow for little impact on the listeners perspective. However, pauses that are disfluent and do not follow the source material “have the potential to change a listener’s perspective” (p. 4). The research hypothesizes that utilizing an interpreter to obtain access to a message can damage the listener’s perception of the individual. The study

found that the disfluent pausing had a greater impact on those listening to a recorded interpretation than those able to see the deaf individual. This being the case, Fitzmaurice and Purdy (2015) note that “listeners will judge the metanotative qualities of a speaker based on the interpretation” and disfluent pausing will “cause listeners to form a poor impression of the speaker” (p. 10)

Linguistic/Discourse Analysis

Discourse analysis according to Hale and Napier (2014) is “the systemic analysis of language in use through the application of a variety of different methods, theories and approaches” (p. 118). However, for truly authentic discourse analysis, the communication being studied must be true to its source and must accurately represent standard communication. Hale and Napier also make mention of two approaches to this style of analysis: “the top-down approach and the bottom-up approach” (p.120). In both cases, the research is analyzed to find something of value to the researcher. Top-down methods involve the researcher looking for something specific whereas bottom-up methods analyze the research patterns, letting the research data to speak for itself.

Literature analyzed has looked at the specifics of how the specific speech patterns are perceived. This research acknowledges that perception has been proven poor for hedging and RTP and will instead utilize linguistic discourse analysis to find possible reasons within the transfer from source language to target language. In Roy (1987), interpreters could review the tape of the signer prior to interpreting to ask questions about unknown signs and clarify information. The research conducted within this thesis will not as it could provide limitation in finding due to a rehearsed performance.

In examining what causes interpreters to utilize hedging or RTP, some areas examined will follow Fraser (2009). It is suggested weakened language occurs due to a desire for vagueness (receiving information “from a speaker [that] lacks the expected precision”) (p.15), evasion (information “fail[ing] to meet your expectation”) (p. 17), equivocation (using words with multiple meanings to intentionally “mislead the hearer”) (p.18), and politeness which was discussed earlier. The use of hedging and RTP within interpreting may follow these reasonings, but the goal of this research is to find what causes the interpreter to feel the need to utilize them and what processes occur that influence the process.

Hedging and rising terminal pitch are proven through the literature reviewed to have negative impacts on the audience’s perception of the person speaking. These speech patterns can alter and/or diminish the message the speaker is trying to provide, disrupt the intent of the speaker, and reduce character value in the audience’s identity and image developed about the speaker. Applying this to the profession of sign language interpreting, hearing audiences base most of their judgments about the deaf presenter on the fluency and speech patterns of the interpreter. Therefore, providing an interpretation that inadequately matches the deaf presenters tone, language style, and intent can throw the entire presentation and perceptive image off though this image is not typically developed about the interpreters themselves. Knowing the influences factors that lead to the infiltration of hedging and rising terminal pitch is half of the process of improving the interpreting field. Knowing these factors enables for learning, intentional practice, and improvement that can be applied for all sign language interpreters experienced, novice, and training.

Section III: Methodology

This goal of this research is to examine the utilization of hedging and terminal rising pitch by an ASL interpreter in a presentation setting. The specific choice of a presentation setting is to provide a scenario in which the Deaf individual will be able to control the personality they bring across with minimal impact from interruptions and dialogue breaks. To maintain further legitimacy of results, the interpretation provided was a “cold” interpretation; an interpretation that was not rehearsed prior to recording. The participant was then informed that the target audience was college students or individuals looking to join this profession. The responsibility then falls to the participant to render the interpretation while attempting to match the intent, character, and language of the presenter.

As noted in the previous section, common layperson belief is that interpreters are the experts and provide verbatim interpretations, however this can be misleading. While interpreters are indeed experts in their field, it is also a profession that can be infiltrated by language characteristics typical of the interpreter’s own language rather than that of the person they are representing. Tenet 2.3 from the RID CPC (2005) ends stating that interpreters will “correct errors discreetly and expeditiously” (p.3). However, ‘errors’ can be inclusive of additive sounds, including hedges, as understanding is trying to be found. While these may not throw off the message of the interpretation, they can provide an inaccurate representation of the Deaf individual. If the average layperson does believe the interpretation to be provided verbatim, the hedging and intonations utilized will be attributed to the deaf presenter rather than the interpreter, thus impacting the audience’s perception.

Recruitment

This study depends on the ability to analyze the language and inflection of pitch an interpreter provides while working through a simulated activity to see how their own language infiltrates the interpretation provided. For this study, actively certified sign language interpreters were sought as opposed to participants who are not actively certified. This decision was made to ensure the legitimacy of data and relevance to current interpreting practices. The Registry of Interpreters for the Deaf (RID) was contacted utilizing their 'Research Corner' submission form. The information was requested to be sent out utilizing the RID Facebook group page, each of the five RID regional Facebook group pages, and the eNews letter. Included in the post was a link to a demographic survey.

In the demographic survey, participants were asked to write in responses for year of birth and preferred gender identity. In addition, participants were asked to select their highest level of education completed (high school, some college, associate degree, bachelor's degree, master's degree, doctorate degree) and current interpreter certification (BEI, RID, EIPA, NIC, CI/CT, CSC, NAD, state recognized certification, or none) and RID region of residence (regions I-V). Finally, participants were requested to write in an email address to contact for further participation. Respondents who indicated that they did not have a current certification were politely thanked for their response and were excluded from consideration for participation. This was to ensure that current working interpreters are utilized and are thus comfortable working with the language within the presentation. The additional survey information was requested should demographic based analysis be possible. Interpreter participants were not offered compensation for their participation in this study.

Research Participation

A total of six respondents qualified, and a follow-up email was sent to each of them reiterating the requirements of this study and to request their participation and IRB consent. From a total of six respondents and follow-up emails sent, two replied with approved consent. Due to poor internet connection leading to unclear video and poor sound quality, the second participant's interpretation was removed from the study. One individual later reached out to share they were uncomfortable with their ASL to English skills and did not wish to be involved in the research study. Given that there was only one participant and interpretation analyzed, demographic research analysis was not conducted. The research participant involved in this study is an NIC certified interpreter in their 30's residing in RID Region III. The participant identifies as female and has graduated with a bachelor's degree from a 4-year university.

Due to the ongoing COVID-19 pandemic in addition to physical distance from the location of the participant, obtaining a live interpretation was not possible. However, with the utilization of ZOOM Video Communications recording and QuickTime recording, a recreation of an interpretation being provided for a virtual lecture was captured. This enabled the interpretation to mirror what online interpreting for meetings, lectures, and presentations during this time of social distancing would look like in our current situation. The interpretation was recorded utilizing a ZOOM Video Communications live chat while being simultaneously recorded via QuickTime recorder. while watching the presentation clip for the first time. They were not given in depth information or an opportunity to watch the video ahead of time to further simulate a real-world interpretation perspective. Should the ZOOM file corrupt, recording with QuickTime provides a satisfactory backup for analysis.

The participant was asked to interpret a sample of 11 minutes and 40 seconds of a video entitled *Nature Photography* (2012) from the NIEC Outcomes Circle. Though the interpretation was “cold”, and the participant was not allowed to view the video clip prior to recording, the participant was permitted to view the presenter’s introduction that occurs in the first 40 seconds of the video. Allowing the participant to view this section of the clip was to provide a mock version of meeting the client prior to interpreting. This is a common practice for interpreters to gain an understanding of their client’s signing style and to better understand the person they are interpreting for. Not meeting a deaf individual before interpreting for them is extremely rare and near non-existent in the field of interpreting. After the interpretation was rendered, the participants involvement in the research was complete.

Analysis

Following the collection of materials and recordings as necessary, a linguistic analysis is applied. First, the video samples will be analyzed quantitatively to tally information. Like a discourse analysis, this linguistic analysis looks at the interpretation holistically, examining the pragmatic intrusions of hedging and rising terminal pitch within the interpretation sample, rather than finding interpreting mistakes. Hale and Napier (2014) label this approach as top-down when they mention, “the top-down approach is a deductive-type approach, where the researcher has determined the structures or characteristics of the discourse that s/he wants to find” (p. 118).

Audio recordings of the interpretation are scripted out and examined for any intrusive hedging phrases, each to be documented with time of occurrence. The scripted text is then examined while simultaneously listening for terminal rising pitch within and ending statements and documented for further analysis. After compiling the quantities of occurrences, the analysis changes frames to a qualitative approach to find potential influencing factors. This includes

analysis of a combination of “linguistic, contextual and cultural aspects” (Hale/Napier, 2014, p.119), while also looking at the pragmatic application, phrases and intonation that impact a listener’s perception. Following the analysis of hedging and rising terminal pitch, the interpretation is analyzed from the bottom-up allowing the data to provide any patterns or additional themes that deserve analysis. After identifying themes, they are quantified to see the rate of occurrence and analyzed for influencing.

Analyzing for influencing factors involves going back into the presentation video, watching simultaneously with the interpretation, and analyzing the context around the documented occurrences while examining the participants facial cues to determine potential influencing factors. Additionally, cognitive processing time is measured by finding a phrase in the source language and counting the time it takes for an interpretation of this phrase to be verbalized in the target language. Cognitive processing time is also analyzed as a potential influencing factor. One of the difficulties of utilizing a linguistic analysis is the depth of examination, tediousness, and time-consuming nature that it requires. Results of findings and analysis thereof is discussed more in-depth in the following section.

Section IV: Analysis

Throughout the analysis of ASL to English interpretation, hedging and rising terminal pitch were counted and organized to identify specific times the participant used these strategies as well as the possible influencing factors. Both hedging and rising terminal pitch occurrences were analyzed on a per minute basis to see if something that happened at a specific time in the source material led to these occurrences. They were also examined to see if fatigue could be considered as a contributing factor given the time in which they occurred. Upon analyzing *Figure 1*, occurrences of hedging and rising terminal pitch were consistent throughout the interpretation meaning the occurrences were likely influenced by content rather than fatigue.

Hedges vs. RTP Occurrence per Minute

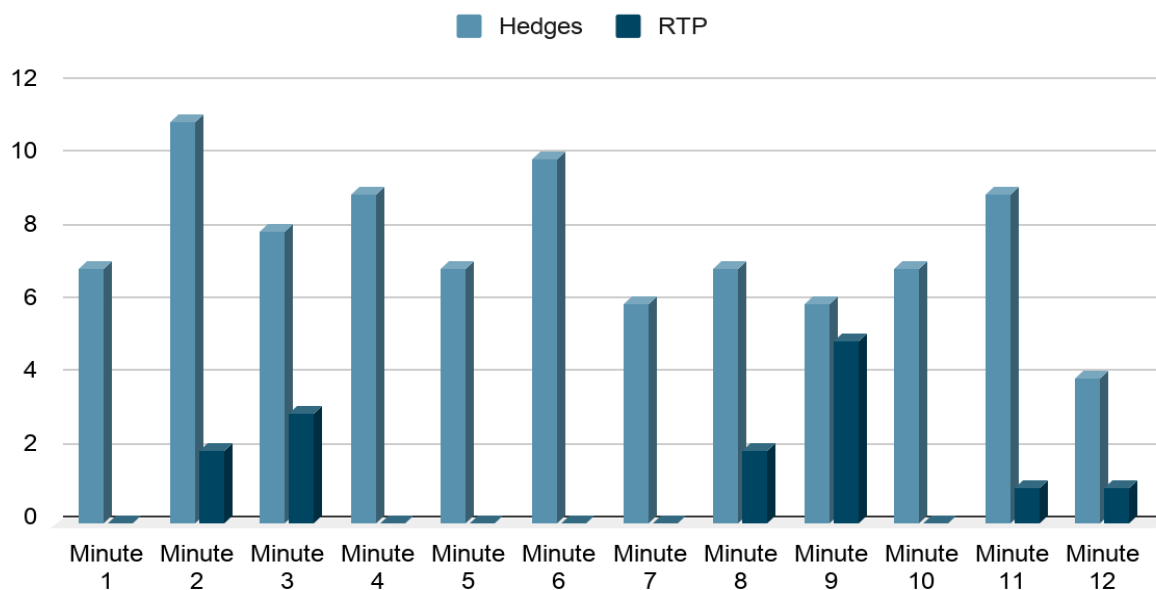


Figure 1. Hedges and RTP Occurrence per Minute.

A further hypothesis could have been made that the participant being unfamiliar with the deaf individual's signing style and thus needing to get acclimated could lead the participant to use hedging and rising terminal pitch more often in the beginning of the interpretation. However,

Figure 1 shows that hedging and rising terminal pitch occurrences did not spike at the beginning of the interpretation proving this hypothesis to be incorrect. With a possible hypothesis of fatigue and unfamiliarity with the deaf individuals signing style showing to not be an influencing factor for hedging and rising terminal pitch occurrences, further factors were considered and analyzed. These include cognitive processing time, fingerspelling, signing speed, classifier utilization, and lists/timelines.

In the 11 minute and 40 second interpretation, a total of 91 hedging moments occurred. Some of these included several phrases used within one hedge and were counted as one hedging occurrences. This provided an average of just under eight hedging occurrences per minute. The most common hedging phrases used were “you know”, “umm/uh”, “so”, “just”, “maybe/probably” and “kind of/sort of”. The frequency of use for each of these hedging phrases is found in *Figure 2* where each specific phrase was counted, even if within a sequence of phrases. After finding commonly used hedging phrases, further patterns were examined to find the influencing factors for hedging occurrences.

Themes:

Common Hedges

The ASL to English interpretation analyzed for this research contained themes of frequent utterances that occurred both in tandem and apart from other hedges and RTP utterances. As noted in *Figure 2*, the common hedging themes within this research include the following phrases: “you know”, “um” or “uh”, “so”, and “just”. These four hedging phrases were used a total of 81 times and indicate potential reception challenges, insufficient cognitive processing time, and other possible contributing factors. This also could indicate the stylized

language of the participant blending in with the language used during this ASL to English interpretation.

Common Hedges

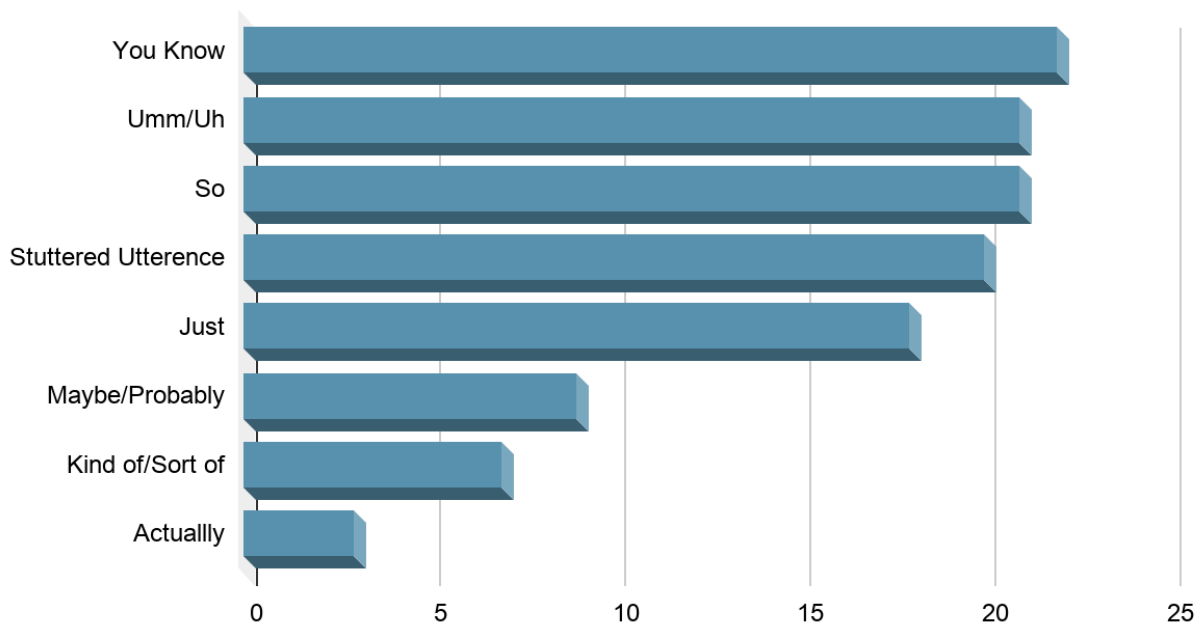


Figure 2. Common Hedges

The most common hedging phrase, “you know”, was utilized a total of 22 times, making up for 24% of all hedging phrases within the interpretation. Twice, “you know” was used in conjunction with other hedging phrases. The participant said “you know” in multiple places in their sentences indicating that this hedging mechanism was used as a strategy to buy time before they interpreted, or this was a natural phrase in their everyday speech. In some instances, the hedge was seen multiple times within the same sentence. For example, the participant interpreted, “(You know) organized birds on a limb versus birds flying, versus mammals, (you know) mammals with fur, versus, landscape photos (you know) keeping all of that organized.” Although using this phrase in one sentence may be a natural speech pattern for this participant, it

conveyed the participant's hesitation and potential unfamiliarity with the source material, which could impact a hearing person's perception of the deaf presenter.

In total, 23% of the hedges identified throughout the interpretation were “uh” and “um”. There seemed to be three reasons “um” and “uh” were used in the interpretation. First, the participant used these hedges to fill quiet moments when interpreting from one sentence/phrase to the next. Second, when the participant interpreted the material too soon, they used these hedges to backtrack and correct their false start. For example, early in the interpretation the participant said, “I got to (uh) I read the manual from front to back...” and later in the interpretation, it was stated, “I love nature; love being outside and just getting to (uh) getting to record pictures of what I'm out there seeing is wonderful.” Finally, occurrences of “um” and “uh” provide a correction to something misspoken. “Still haven't taken any formal photography cleaning (uh) training”. This is an example of a cognitive hedge used for the participant's self-correction. However, this hedge is not indicated as such and therefore comes across as an error made by the deaf individual.

The use of the hedge “so” occurred mostly (19 of 21 times) as a time filler at the start of sentences. “So, I gave it another couple of hours...” and “So that's just one small thing that I've learned...” are two of the numerous examples of this occurrence. Each of these phrases were provided in the English interpretation but were not utilized within the source material. A possible reason for this was to provide more time for ASL reception and allow for the participant to cognitively process the information before interpreting it into spoken English. Thus, the word “so” is utilized as a potential filler agent making the time between clauses less awkward for the listener by removing long pauses. The other two occurrences of “so” within the interpretation were used for descriptive purposes (e.g., so much) and clause/sentence connectors.

“Just” was used frequently in adverbial fashion providing a perceived indication of something that happened recently to the prior clause or within the timeline. In use, “just” was utilized on its own, “it’s just got so much better in the past five years...”, as a filler word, “trying to (um just) trying to lift off its wings...”, or as a stuttered phrase, “where the quality was spectacular (just) just a fantastic picture”. Each of these instances were not accompanied by ASL signs that could be interpreted into a meaning of ‘just’ and therefore did not come from the source material.

Pauses and Stuttered Utterances

Along with hedging phrases, extended pauses and stuttered utterances occurred throughout the ASL to English interpretation. While pausing within an interpretation is expected, pauses that occur for extended time or that occur in the middle of concepts/sentences can be perceived as unnatural. Prior research found that disfluent pausing (pausing unnaturally during spoken English within concepts) has a negative impact on the perception of the speaker by the intended audience (Fitzmaurice/Purdy, 2015). A total of 11 pauses were identified during the ASL to English interpretation, all of which were not derived from the deaf individual’s signs/pauses during the presentation. Only one of the participant’s pauses occurred in the middle of a clause/sentence, the rest occurring in a transition between sentences or clauses. Like hedging phrases, pauses were used to provide time for the participant to gather more contextual information before resuming the ASL to English interpreting. The pauses were consistent throughout the ASL to English interpretation. *Figure 3* exemplifies this showing the breakdown of pauses per minute.

Another prominent theme within the ASL to English interpretation was stuttered utterances. *Figure 3* shows the minute-by-minute breakdown of the stuttered utterances and

shows that these occurred consistently throughout the interpretation. Stuttered utterances include moments of false starts by the participant where a word or phrase is repeated before completion

Pauses vs. Stuttered Utterances

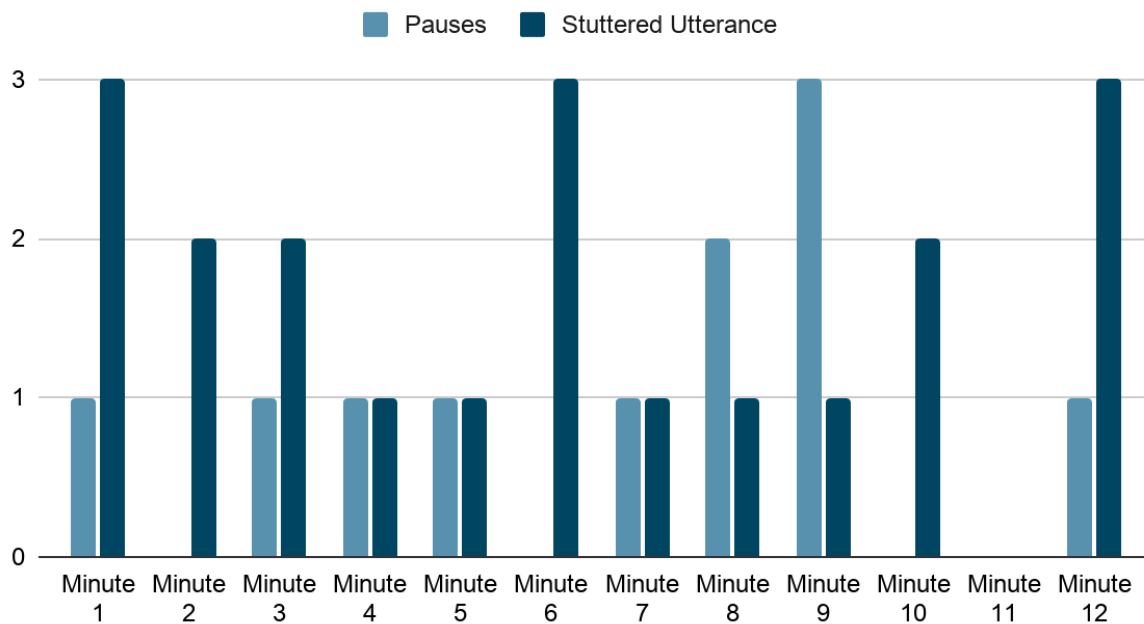


Figure 3. Pauses and Stuttered Utterances

of the clause. Other stuttered utterances occurred within sentences where the participant seemed to interpret the information while still mentally processing. One example of a stuttered word utterance occurs when the participant says, “(I’ve) I’ve dreamt of taking good pictures like you’d see in the nature magazine where the quality was spectacular.” Stuttered utterances can also contain instances of hedging as well. Part way through the interpretation, the participant said, “I love nature, love being outside and just getting to (uh) getting to record pictures of what I’m out there seeing is wonderful.” Stuttered utterances and hedges of this nature could impact the perception of the deaf presenter by the hearing audience by making them seem less credible.

Influencing Factors:

Specific factors influencing the use of hedging are discussed, but not all are addressed in this research. Influencing factors are discussed in detail, not all are addressed with other influencing factors also contributing as well. These factors include the participant's own cognition, signer rate, unfamiliarity with the topic, and a myriad of other factors that could influence the primary factor identified of cognitive processing time. These factors are not ignored, but rather considered in analyzing for further influences in the ASL to English interpretation.

Cognitive Processing Time

The largest influencing factor for hedging and rising terminal pitch occurrence was cognitive processing time. Cognitive processing time means the time necessary to process the ASL signs received visually and produce a spoken English message. Processing time for this study is determined by measuring the time between the production of ASL sign(s) prior to the hedge or rising terminal pitch occurrence followed by the uttering of spoken word interpretations to the sign(s). The spoken word interpretations may include various words with the same meaning such as for the sign 'Angry' spoken words of "angry", "mad", "grumpy", "agitated", etc. would be accepted.

Through the ASL to English interpretation, the participant maintains a cognitive processing time of anywhere in the range of 2-8 seconds, a range from a few signs to a full concept behind the presenter. If the participant's processing time was 2 seconds, a very short time, the usage of unnatural pauses and hedging increased. Analyzing all hedging phrases and moments of rising terminal pitch, the average cognitive processing time was 3 seconds. Early in the presentation, the deaf individual signs that he asked the sponsor what the secret is to good photos and indicated, through a role shift, that 'a good camera' was the answer given by the

sponsor. The participant interpreted, “I had asked the sponsor of the club, you know, is there ... What is the secret to taking a good picture? getting a good camera.” The intonation and timing of the phrasing suggests that all is being asked by the individual rather than a request and a response. This phrase is followed up by an unnatural pause of 4 seconds sandwiching it between a hedge and a pause. At the time of this occurrence the participant’s cognitive processing time was 2 seconds which potentially impacted their output.

Few anomalies occurred with 8 seconds of processing time and could be influenced by the participant having difficulty processing the information received, the participant’s typical/comfortable processing range and/or the feeling of falling behind/missing information. When the participant fell behind more, they also produced extended hedging phrases with more than one hedge in succession. Roughly half-way through the interpretation, the participant voiced,

“I was also able through this time to meet different photographers mostly hearing (um but you know) watch them copy what they did analyze what they did and (just) ... got to learn (you know) ...”.

The phrasing followed well to that of the deaf presenter who signed about meeting different photographers, mostly hearing, and learning and analyzing what they did by their actions. In this one spoken phrase there are five different hedging phrases used. The influencing factors for this could include increased cognitive processing time as the participant was 8 seconds behind the source material. A secondary influence could be the signing rate of the presenter, being unsure of what was being received, or feeling as though information could be lost.

Other consistent themes are likely to have been influenced by the cognitive processing time of the participant. We see later in the interpretation, the participant states,

“I’m still learning like just two weeks ago, I think it was *pause* I (um) found (sort of) a (uh) white standard (RTP) I was, I apologize. I was using the white standard to get soft light when the sun sets down below the trees a little bit. So, if there's a (um So) when a bird came up and sat on the limb of the tree, could use this special filter on the camera called white standard.”

In this excerpt from the interpretation, the participant is most likely having difficulty due to the unfamiliarity with camera functions for the more advanced and expensive cameras. In addition to this, the participant’s cognitive processing time was only 2 seconds, meaning they did not allow enough time to get the full message before vocalizing their interpretation of the concept. With the limited processing time and the unfamiliarity with the specific topic/information, the participant false started, used a total of six hedging phrases, paused unnaturally and exhibited rising terminal pitch. After these instances of hedging and rising terminal pitch were used to buy time, the participant was able to gain enough contextual information to interpret accurately and with a better understanding of what was being received. Cognitive processing time and the lack there-of within the ASL to English interpretation was a potential influencing factor for nearly all the instances of hedging, pausing, rising terminal pitch, and stuttered utterances.

Fingerspelling, Classifiers and Lists

Fingerspelling, utilizing the manual alphabet to spell a word/phrase that may or may not have a sign, is an important part of ASL. During this interpretation a total of 25 fingerspelled words/phrases were signed by the deaf individual. Of these 25 fingerspelled words/phrases, a total of 14 were directly correlated with an instance of hedging. This equates to 56% of fingerspelled moments that directly caused the participant to use hedging. Within the interpretation, this typically manifested in the form of a stuttered utterance repeating the same

word or phrase almost immediately following the production of a fingerspelled word or number. In almost all instances, the repeated phrase was not the same as the fingerspelled phrase, but instead the spoken word/phrase at that moment was repeated while a fingerspelled phrase was received simultaneously.

With the importance of fingerspelling to the language of ASL, it is equally as important to retain that information in the ASL to English interpreted information. The use of hedges when fingerspelled words and phrases appeared are most likely a strategy to ensure the participant was able to understand the fingerspelled word/phrase and accurately interpret to maintain the integrity of the message. That said, this also points to an issue of confidence or practice, while also pointing to a desire to not miss the phrase spelled that could be unfamiliar.

The use of classifiers, handshapes used to represent nouns and describe motion, size/shape, and/or location, also impacted the use of hedges throughout the ASL to English interpretation. When working from ASL to English, classifiers can be a difficult concept to interpret because, typically, classifiers do not have specific English words that translate perfectly. Classifier use within the ASL to English interpretation attributed to six different instances of hedging. Each hedge occurred during the ASL to English interpretation following a classifier describing a picture being taken. For example, the moment the deaf presenter began using classifiers, the participant uttered a hedging phrase during a concept. This along with the unfamiliarity of the situation may be influencing factors to the hedges paired with classifiers signed.

Another influencing factor that seemingly played a major role in the prevalence of rising terminal pitch instances was listing and/or the perception of lists. Listing includes moments where the deaf individual may list out an order of events, a ranking, or categories. Listing also

occurs in the interpreting process where an interpreter perceives the need for a list/organized order of events. Outside of one rising terminal pitch occurrence, each moment of rising terminal pitch occurred within or after a list. One clear example of this occurs when the participant voices, “To be able to see (RTP) these things that I was taking pictures of in action (RTP) and to get the action shots (RTP), that was what I ended up struggling with the most.” This instance shows the perceived list of items seen by the deaf individual’s photography. This could either be happening because the participant is trying to make logical sense of the message or the participant was unable to predict what the presenter was going to discuss next. In either case, the change in pitch after each portion of the clause was a decision made by the participant that was not expressed by the deaf individual.

Personal Speech Patterns

While there are influencing factors that exist within the source material that can cause the use of hedges and rising terminal pitch throughout the ASL to English interpretation, the participant’s own speech patterns must also be considered as a possible influence. When providing the voice for the deaf individual in interpreting, the words used are impacted by the personal speech patterns an interpreter innately uses. In the case of this ASL to English interpretation, evidence for this speech pattern influence could be seen in the extensive use of the phrases “you know”, “just”, and “so”. These phrases occurred a total of 22, 21, and 18 times, almost two times every minute. The abundance of occurrences is possibly indicative of being influenced by the source material but may also show the speech patterns of the participant infusing its way into the interpretation.

Further evidence for speech patterns working their way into the interpretation include stuttered utterances, and the occurrences of rising terminal pitch. Most of the stuttered utterances

showed indications of being influenced by fingerspelling, classifiers, and/or a lack of consistent processing time. However, some hedges seemed to be triggered by unknown influences. These occurrences are possibly influenced as a part of the participant's natural speech. The use of rising terminal pitch may also have a base influence from the natural speech patterns of the participant that carries over into a way of dealing with lists in interpreting. While speculative in nature, the natural speech patterns of the participant must still be considered when trying to determine influential factors of hedging and rising terminal pitch.

Section V: Conclusion

This research sought to find the influencing factors behind occurrences of hedging and rising terminal pitch within an ASL to English interpretation. Using Roy (1987) research on how hearing interpreters represent deaf presenters, this study analyzes where, throughout the interpretation, misrepresentation occurs and what discourse markers led to this misrepresentation. Specifically, the hedging phrases that occurred only in the interpretation and were not derived from the source presentation were examined to find patterns of occurrence and of influence. Instances of rising terminal pitch were also examined to find if they were influenced by anything other than the source language. The interpretation was also analyzed to find additional themes that occurred throughout the text to better understand how an interpreter's language can impact an ASL to English interpretation. This information was gathered with the intent of providing areas of focus for interpreter training programs and deliberate practice opportunities.

The research provided multiple moments of analysis with approximately eight hedging phrases and just over one instance of rising terminal pitch occurring per minute. In addition to hedging and rising terminal pitch (RTP), unnatural pauses and stuttered patterns were studied. Some phrases repeated consistently throughout include "you know", "so", and "just" throughout the ASL-English interpretation. Each hedge, pause, stuttered utterance, and rising terminal pitch occurrence were analyzed in congruence with the deaf individual's presentation to find what influenced the participant to use these skills/patterns within the interpretation.

The most common influence was the cognitive processing time, or the time needed to comprehend not only the phrases but the context of what was signed before interpreting into spoken English. Having a range of only 2-8 seconds of cognitive processing time impacted the

participant and their use of the strategies analyzed. While some instances of hedging occurred with extended cognitive processing time, most hedging phrases occurred with minimal processing time (2-4 seconds) and were used to provide additional time for the participant to gain more contextual information to then provide an accurate interpretation. Stuttered utterances were also a consequence of the participant's insufficient processing time. In addition, extensive unnatural pauses were used in the same manner as hedges and were used to allow the participant to extend the cognitive processing time and to gather full concepts before continuing with the interpretation.

Fingerspelling and ASL classifiers were impactful in influencing the participant into using hedging phrases as well. More than 50% of fingerspelling instances led to hedging utilization while classifier use attributed to six instances of hedging as well. Whether it was the unfamiliarity with the topic or the desire to fully understand the fingerspelled word/provide an accurate description of the ASL classifier, it was clear that these important aspects of ASL left the participant to employ strategies that could have potentially altered the hearing audience's perception of the deaf presenter. ASL listing and listing opportunities within the ASL to English interpretation in conjunction with limited processing time led to prominent moments of rising terminal pitch. Though this was influential, other factors could exist as well.

Given the extensive and consistent use of hedging phrases such as "you know" and "just", the participant's style of speech must also be considered in terms of influence. Specific moments and instances of hedging and rising terminal pitch within the ASL to English interpretation showed indication of being influenced by specific factors. However, some instances occurred with minimal influence. These instances can be considered to have been

influenced by the language and speaking patterns of the participant infiltrating into their professional interpretation.

Limitations

The recruitment process was unable to yield the participation desired for a more diverse population of interpretations. Though information was distributed through RID's social media sites and regional pages, the timing of distribution may have impacted the resulting response rate as RID was in the process of electing officials and representatives. Furthermore, response rates and willingness to participate in this research may have been impacted by the ongoing coronavirus pandemic during the duration of this research.

Having one research participant, resulting in one interpretation to analyze, the information deduced from analysis leaves room for speculation. Patterns found may only be applicable for the one participant in the study and may not be applicable for the general interpreting population within RID Region III and beyond. Due to the limited time frame for research, the research participant was not contacted after analysis to interview/discuss the research findings and their perspective.

The perspective of the participant is not included, which could offer further information into what truly influenced the occurrences of hedging and rising terminal pitch within their interpretation. This leaves influencing factors found as a speculation due to the one perspective analyzing them. While this research shows a potential impact to a hearing audience's perception of a deaf presenter, the perspective of the deaf is not included. Without their perspective, the impact of this perception and how they perceive it themselves is not commented on. Furthermore, the accuracy of representation is not clear due to the lack of deaf participation in this research.

Recommendations

While this study does not look to definitively answer the question of the impact made by these pragmatic additives, it does leave the availability for further research to be done to determine perception made of the Deaf individual to the intended audiences. By first knowing how often this infiltration occurs, this research provides further learning opportunities for interpreters and training programs alike to cause more awareness and further training.

With the extent of information gathered from the ASL to English interpretation, recommendations can be made that could influence active interpreters and students studying to become interpreters. This research recommends an adjustment to ASL to English training provided through interpreter training programs (ITP's). Modeling the intentional practices of ITP's to accurately mimic live interpreting while emphasizing extended cognitive processing time will benefit future interpreters and potentially limit their use of hedging phrases and rising terminal pitch. Intentional practices of active interpreters and student interpreters alike are recommended to focus on building the mental stamina and capacity with additional cognitive processing time and consecutive interpreting practice. This will assist interpreters in gaining more comfort with being further behind a deaf presenter and will allow for them to gather full concepts and reduce the use of hedging and rising terminal pitch strategies.

Opportunities for Future Research

This research provided results that indicate an influence of hedging and rising terminal pitch within an ASL to English interpretation. While this research starts the conversation of what to address in interpreter training programs and what interpreters can focus intentional practice on, it still leaves the door open for further exploration. Research is encouraged to continue analyzing influential factors of hedging and rising terminal pitch within interpretations from a

broader sample of interpreters throughout the United States. Greater diversity of interpreters will provide the study more information on the applicability of the results to different interpreter groups, regions, and other demographic differences. This will also solidify the recommendations for training programs, workshops, and deliberate practice opportunities. Further research into other patterns of speech is also recommended to provide a plethora of data on which influencing factors dominate over others. Future research should examine multiple demographics (e.g., age, region, certification time, level of certification, etc.) and analyze any differences between them to find if this is applicable to most, some, or all.

Given the opportunity, future research should seek the participants' assistance through interviewing post-analysis to gain their perspective about specific instances and what influences may have existed. Finally, recruiting a deaf individual to gain their perspective would tremendously influence the legitimacy of any future research to come.

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Appendices

Appendix A RID Research Corner Submission

Research Corner Submission Form

Please submit your research information and/or research survey related to Sign Language Interpreting.

- Your Name*
First: Adam
Last: Spannagel
- Other Individual(s) Involved
First
Last
- Your Email*
awspannagel@stkate.edu
- Institution Affiliation*
St Catherine University
- Click all that apply*
 - I am an interpreter X
 - I am a student X
 - I am an instructor
 - Other
- Link to Survey Qualtrics Demographic Survey
- Website N/A
- In 3-5 sentences, please describe your research:

The purpose of this study is to explore how speech patterns influenced by cognitive processing impact an ASL to English interpretation. Specifically, this study will examine ASL to English interpretations of a presentation shared by a deaf person in ASL to measure the occurrence and potential influencing factors that an interpreter's language

has on the meaning and portrayal of the deaf individual. This study is important as it provides the potential for further learning opportunities and understanding for current interpreters and interpreter training programs.

- Is your research funded?
 - Yes
 - No X
 - Application in progress

- Which of these RID outlets would be best for distributing your research?
 - Upcoming RID eNews
 - RID Social media
 - Both X

Note that the e-news is typically distributed on the last business day of the month - so make sure your survey is open at least some period of time PAST the next distribution date!

Social media can usually be distributed within a couple of days, but will not hit as many members as e-news.

- Signature*



- Deadline for Participation* April 10, 2021

(This is the date that your survey/research closes.)

Appendix B Social Media Recruitment Posts

- Post 1 (Posted to RID Regional Pages):

Hello, my name is Adam Spannagel, and I am a current graduate student at St. Catherine University. I am currently conducting research for my thesis aiming to learn about how our own speech patterns and cognitive processing infiltrates ASL to English interpretations provided by ASL interpreters. Certified interpreters holding state recognized certifications (e.g., BEI, RID, CI/CT) are sought for participation. Participants in this study will be asked to provide an ASL to English interpretation for a pre-recorded presentation on nature photography. The interpretation will be recorded with audio and video files being saved and utilized for a linguistic analysis. Prior to involvement, individuals will be asked to fill out a demographics survey at http://stkate.az1.qualtrics.com/jfe/form/SV_cHiXNRJAetyu8E1.

While demographics are collected, personal information will not be shared. Files will be stored on a private external hard drive and saved to a locked iCloud file. The analysis and subsequent thesis will be made anonymous as each participant chosen will be assigned a random number, removing any identifying information. By December 31, 2021, all recordings will be destroyed in order to maintain confidentiality. Participation in this research is completely voluntary. If interested in participating or if you have any additional questions, I can be reached at awspannagel243@stkate.edu.

Thank you in advance for your consideration,

Adam Spannagel.

- Post 2 (Posted by RID):

Research Corner

Adam Spannagel, of St. Catherine University, is conducting research aiming to learn about how speech patterns and cognitive processing infiltrates ASL to English interpretations provided by ASL interpreters. Certified interpreters holding state recognized certifications (e.g., BEI, RID, CI/CT) are sought for participation. Participants in this study will be asked to provide an ASL to English interpretation for a pre-recorded presentation on nature photography. The interpretation will be recorded with audio and video files being saved and utilized for a linguistic analysis. Prior to involvement, individuals will fill out a demographics survey online:

https://stkate.az1.qualtrics.com/jfe/form/SV_cHiXNRJAetyu8E1

If interested in participating or if you have any additional questions, contact the researcher at: awspannagel243@stkate.edu.

Appendix C Qualtrics Demographic Survey

Q1 What current certification(s) do you hold?

- BEI
- RID
- EIPA
- NIC
- CI
- CT
- CSC
- NAD
- State Recognized Certification
- None

Q2 Which RID region are you from?

- Region I
- Region II
- Region III
- Region IV
- Region V

Q3 What is your year of birth?

Q4 What is your preferred gender?

Q5 What is the highest level of school you have completed or the highest degree you have received?

- High school graduate (high school diploma or equivalent including GED)
- Some college but no degree
- Associate degree in college (2-year)
- Bachelor's degree in college (4-year)
- Master's degree
- Doctoral degree

Q6 Would you be interested in participating in this study? If so, what is the best email address to contact you at?

Appendix D Research Participation Follow-up Email

Hello,

My name is Adam Spannagel. I am a current student at St. Catherine University in the Master of Arts in Interpreting Studies and Communication Equity program working on my thesis. I am contacting you because you expressed interest in becoming a participant in my thesis research. With my research I aim to learn about how our own speech patterns and cognitive processing infiltrates into the ASL to English interpretations provided by ASL interpreters. Certified interpreters holding state recognized certifications (e.g., BEI, RID, CI/CT) are sought for participation. Participants in this study will be asked to provide an ASL to English interpretation for a pre-recorded presentation on nature photography. The interpretation will be recorded with audio and video files being saved and utilized for a linguistic analysis. Files will be stored on a private external hard drive and saved to a locked iCloud file. The analysis and subsequent thesis will be made anonymous as each participant will be assigned a random number, removing any identifying information. By December 31, 2021, all recordings will be destroyed in order to maintain confidentiality. Your participation in this research is completely voluntary.

Please find attached a consent form for your review. In lieu of signatures, an email response containing "I consent to be involved in this research" or "I do not consent to be involved in this research" will suffice. After reviewing the document, please respond with your consent choice. If you choose to be involved, please let me know your availability in order to set up a day and time to attend a zoom meeting for recording.

If you have any additional questions, I can be reached at awspannagel243@stkate.edu.

Thank you in advance for your consideration,

Adam Spannagel.

Appendix E Informed Consent Document

ST CATHERINE UNIVERSITY Informed Consent for a Research Study

Researcher(s): Adam Spannagel

You are invited to participate in a research study. The study is being done by Adam Spannagel, a Masters' candidate at St. Catherine University in St. Paul, MN. The faculty advisors for this study are Patty Gordon and Dr. Erica Alley, Associate Professor in the ASL and Interpreting Department at St. Catherine University.

The purpose of this study is to explore how an interpreter's speech patterns, often influenced by cognitive processing, impacts an ASL to English interpretation. This study is important as it provides the potential for further learning opportunities and understanding for current interpreters and interpreter training programs. These will include areas to focus for practice and common areas that mistakes, or errors occur. Approximately 10 people are expected to participate in this research. Below, you will find answers to the most commonly asked questions about participating in a research study. Please read this entire document and ask any questions you have before you agree to be in the study.

Why have I been asked to be in this study?

You have responded to a call for participants through RID's Research Corner or have been provided information from another individual and have expressed interest in becoming involved. You also are certified with a state recognized certification in American sign language interpreting and are over 18 years of age.

If I decide to participate, what will I be asked to do?

If you meet the above criteria and agree to be in this study, you will be asked to participate in:

- A video recorded Zoom session where you will provide an ASL to English interpretation of a presentation on nature photography offered by a deaf presenter. The presentation will be shared with you via video.
- This interpretation will be recorded and stored anonymously on a secure hard drive and a locked iCloud folder for further analysis. Information stored will be destroyed after research and analysis has been conducted by December 31, 2021.

In total, this study will take approximately 60 minutes.

What if I decide I don't want to be in this study?

Participation in this study is completely voluntary. If you decide you do not want to participate in this study, please feel free to say so, and do not sign this form. Your decision of whether or not to participate will have no impact on your relationship with St. Catherine University, nor with any of the students or faculty involved in the research.

What are the risks (dangers or harms) to me if I am in this study?

For this research, the risk for participation includes a feeling of being overwhelmed from the material depth. In order to mitigate any risk, participants have the option to withdraw at any time.

Further risk includes the potential for the interpretations recorded to be seen. Thus, data will be stored securely on a personal hard drive that is locked away in a personal filing cabinet drawer. Data will also be stored in a locked and password protected iCloud folder. By December 31, 2021, all data will be destroyed.

What are the benefits (good things) that may happen if I am in this study?

This research stands to benefit the interpreting community as well as interpreting programs. This research will also lead to learning opportunities for interpreters and training programs alike to cause more awareness and further training to more accurately represent the message portrayed by a deaf individual, while also providing specific areas to focus on for deliberate practice purposes. In addition, this research will also benefit the deaf community as interpreters will be better prepared to accurately represent them when ASL to English interpreting.

Will I receive any compensation for participating in this study?

No compensation will be provided for your participation in this study.

What will you do with the information you get from me and how will you protect my privacy?

The recordings created during your participation in this study will be identified with numbers rather than names in order to protect confidentiality. Audio files will be transcribed utilizing ELAN for linguistic analysis. Videos will also be analyzed to recognize potential influencing factors of interpreter impact on an ASL to English interpretation. I will keep the recorded information and transcribed research results in a locked iCloud folder, and have it backed up to an external hard drive and only I and the research advisors will have access to the records while I work on this project. I will finish analyzing the data by December 31, 2021. I will then destroy all original reports and identifying information that can be linked back to you.

Any information that you provide will be kept confidential, which means that you will not be identified or identifiable in the any written reports or publications. If it becomes useful to disclose any of your information, I will seek your permission and tell you the persons or agencies to whom the information will be furnished, the nature of the information to be furnished, and the purpose of the disclosure; you will have the right to grant or deny permission for this to happen. If you do not grant permission, the information will remain confidential and will not be released.

Are there possible changes to the study once it gets started?

If during the course of this research study I learn about new findings that might influence your willingness to continue participating in the study, I will inform you of these findings

How can I get more information?

If you have any questions, do not hesitate to ask them before you sign this form. You can also feel free to contact me at awspannagel243@stkate.edu. If you have any additional questions later and would like to talk to the faculty advisor, please contact Dr. Erica Alley at elalley@stkate.edu. If you have other questions or concerns regarding the study and would like to talk to someone other than the researcher(s), you may also contact Dr. John Schmitt, Chair of the St. Catherine University Institutional Review Board, at (651) 690-7739 or jsschmitt@stkate.edu.

You may keep a copy of this form for your records.

Statement of Consent:

I consent to participate in the study and agree to be videotaped/audiotaped.

My signature indicates that I have read this information and my questions have been answered. I also know that even after signing this form, I may withdraw from the study by informing the researcher(s).

Signature of Participant

Date

Signature of Researcher

Date