

A Typology of Errors in ASR Transcriptions of Oral History Interviews

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MALACH Technical Report

University of Maryland. College of Information Studies

August 2005

Introduction

This study examines reasons for errors in machine-produced transcripts of spoken recordings, using Holocaust-survivor testimonies assembled for the MALACH project (Multilingual Access to Large spoken arCHives). The MALACH project uses an oral history archive collected by the Survivors of the Shoah Visual History Foundation as the basis for a searchable database of conversational speech in multiple languages. It encompasses “116,000 hours of digitized interviews in 32 languages from 52,000 survivors, liberators, rescuers and witnesses of the Nazi Holocaust.”ⁱ

The system uses an automatic speech recognition (ASR) to segment, transcribe, and search testimonies. This study concerns errors produced in the automatic transcription process and proposes a coding scheme to help identify types of errors, reasons for them, their effects, and possible linguistic relationships or cues that could help the system better identify the correct word. It also includes a discussion of the process for coding errors and ways it might be improved.

Background: Automatic Speech Recognition

Automatic speech recognition (ASR) relies on a statistical model to interpret spoken language, in two stages.ⁱⁱ First, the system identifies phonemes based on the acoustic signal (acoustic model), then it identifies words or phrases based on the probability that they would occur together (language model). For example, once the ASR program “decides” on a word, it chooses the next word based on the probability that the two words would occur in proximity to each other. Much initial research with ASR systems was based on planned or read and clearly enunciated speech, such as by professional newscasters.ⁱⁱⁱ

Applying ASR to spontaneous speech is more difficult, because conversational speech is much less predictable. Speakers are prone to interrupt themselves, speak at varied volumes, make grammatical errors, and so on. The MALACH project presents significant additional challenges for ASR. Many interviewees speak with accents that may not be recognized by the ASR program. In addition, the testimonies recount traumatic personal histories, and speech may be fraught with emotion at times. The interviewees are not professional speakers, and therefore may not enunciate as clearly or evenly as a trained newsreader, for example.

Methodology

This study used Atlas.ti, a software program designed for qualitative analysis of data, to identify and code errors in the transcription of audio recordings based on an initial coding scheme. Errors were identified by listening to the audio recordings of a segment while reading the ASR transcript. Any time a word in the audio did not match a word in the transcript, it was classified as an error. Each error was then assigned codes that characterized the mistake, its causes, its effects, and possible linguistic cues that could point to the correct word. As a check, the audio was also compared to the human-produced transcript, but this was not being checked

for errors.

Errors were coded according to the initial scheme, which grew as errors were identified and analyzed. Four main categories of codes were developed: types of errors made by the ASR system (*e.g.*, word substitutions or dropped words); reasons for errors (*e.g.*, the accent of the speaker or the pace of speech); effects of errors (*e.g.*, the level of importance for retrieval or the probability of guessing the correct word); and possible improvements based on semantic and syntactic relationships (*e.g.*, semantic or syntactic matching). Each category included an “other” code for error types or causes that did not fit into the scheme. The coding scheme is discussed in detail later in the paper. Errors were coded both as single words and in the context of phrases. In a number of cases, an error was coded more than once: on its own and as part of a phrase.

The development of the scheme itself was a major component of the study. MALACH testimonies are divided into segments that normally span about one to three minutes of audio and are intended to be self-contained “stories” within the larger testimony. As with transcription, some testimonies have been segmented by people, and some have been segmented automatically. This study is based primarily on errors identified in two contiguous segments of one testimony, although it includes errors from two additional segments that were partially coded. The frequency of errors in the transcript and the increasingly specific ways they could be characterized meant that the scheme was continually revised and reapplied to the same passages of text. As the coding scheme evolved, the passages were recoded with the new additions. As a result, only two segments from one testimony were coded completely: one segment of 302 words (in the ASR-produced transcript) and one of 719 words. The passages are adjacent to each other and are the first two segments of the testimony.

Data Limitations

This study was exploratory by nature, and was based on transcription errors in an extremely small sample of ASR-produced text. The original scope of the study—to apply an error-coding scheme to a somewhat larger sample of ASR-produced transcripts—was narrowed as the coding scheme became increasingly detailed. As new codes were added, the same segments of transcript were recoded under the revised scheme, a time-consuming process in a transcript with a large number of errors. Therefore, the study focuses primarily on two segments of text, with some input from two additional segments that were less extensively coded.

Although the coding scheme is detailed, it is likely that other causes of transcription errors would be identified by listening to segments of additional testimonies. The segments examined in this study not only come from a single testimony, but come from the same part of that testimony (the beginning). Certain codes that were applicable in earlier segments became apparent only when they were prevalent in later segments. The segments studied dealt solely with the interviewee’s early life. Other parts of the testimony, in which she discusses her experiences during the war, are likely to be more emotional, and corresponding changes in the quality or clarity of her speech could create additional reasons for errors. While changes *within* a testimony can prompt modifications of the coding scheme, it is essential to test the scheme across different speakers as well. In the future, the scheme could be tested on additional segments in the same testimony, as well as on other testimonies.

Because of the very limited sample on which the study is based, the results should be interpreted with caution. Still, the coding scheme and findings provide a useful starting point for research on ASR transcription errors, and we did not find any other studies that approached the problem in this way.

The Coding Scheme

This section describes the coding scheme developed to identify and analyze errors (for the full coding scheme, see Appendix 1; for the coding scheme with examples of errors for each code, see Appendix 2). The codes are divided into four categories: Types of Errors, Reasons for Errors, Effects of Errors, and Contextual Cues. The following sections describe the broad categories of codes and discuss the rationale for some specific codes as the scheme evolved.

Code Categories

- **Types of Errors:** Codes in this category are intended to describe and characterize the errors themselves. They answer the questions: What is the nature of the error? What happened? Examples include various types of word substitutions (such as replacing the actual word with a similar-sounding word, or replacing one word with two), dropped words, or extra words that do not appear in the actual testimony.
- **Reasons for Errors:** This category addresses the causes of errors. Codes identify possible reasons, based on listening to the audio testimony, that the ASR made the mistake. Subcategories include the language of the word; pronunciation and speech issues (such as accent or pace); proper names; evidence that the ASR's logic has led it astray; misinterpreted spelling; and technical issues (such as poor sound quality or a speaker being off the microphone).
- **Effects of Errors:** This category addresses ways that the errors could affect the user and ways the user might be able to respond to or compensate for the errors. Subcategories include the word's importance for comprehension; its importance for retrieval; and the likelihood that a user could infer the correct word, either without context, with local context (*i.e.*, the rest of the segment), or with global context (*i.e.*, the rest of the testimony and/or broader knowledge about the subject being addressed).
- **Contextual Cues:** This category identifies possible linguistic cues that might help the ASR find the correct word. It seeks to answer the question: What can be discerned in the surrounding language that might suggest that word choice is the wrong one? It includes broad relationships, including the meaning of the general context and the syntactic structure of sentences, as well as more specific syntactic and semantic matching problems.

It is important to note that the ASR transcription errors often build on one another, and the cumulative effect is that a passage is incomprehensible. This problem is largely not addressed in the coding scheme. It is partly addressed by the code for "Misdirected ASR Logic," which is explained in more detail below.

Discussion: Evolution of the Coding Scheme and Specific Codes

This section discusses the rationale for the development of certain codes or types of codes. It provides a more detailed examination of the thinking behind the coding scheme than is included in the full scheme with examples (Appendix 2).

Misidentified Word Boundaries

Sometimes the ASR misidentifies the boundaries of words. In these cases, a single word is not necessarily broken into two words, but it may be spread across two words, both of which contain all or part of another word in the phrase.

For example, the ASR system interprets the phrase “being an only child” as “being non reach higher out”—completely nonsensical to the reader, and useless for searching. This is a case in which the speaker’s accent and pace of pronunciation combine to “confuse” the ASR system. Within the phrase, some words are combined into one, and some are split into two. Moreover, the final sounds of some words in the ASR transcript are actually the beginning sounds of words in the actual speech. So:

- “being an only” becomes “being non rea(ch)” (the “a” sound of “an” is dropped, and “non” is actually “an” combined with the first syllable of “only.” The “rea” sound in “reach” corresponds to the “ly” sound in “only.”
- “child” becomes “(rea)ch higher out” -- The speaker draws out the word “child” so it sounds almost like two syllables.

In some cases, the misidentified boundaries produce dramatically incomprehensible results, as in the example above. In other cases, the error is relatively minor and the passage can still be understood. This code is considered a type of error; the reason it occurs is often linked to pronunciation issues, such as accent or pace.

Pronunciation Issues

Many errors could be traced to specific pronunciation issues on the part of the speaker. These are not necessarily errors, but have more to do with the ebb and flow of conversational speech, such as pace, pausing, and emphasis. Strongly pronounced syllables, and words drawn out for emphasis, seem to be translated into words of their own in the ASR system. When an entire phrase is drawn out, or when the pace of speech changes, the likelihood of a correct transcription seems to drop considerably, and the logic of the syntax breaks down with each subsequent wrong word.

The ASR system seems to respond to the pace of pronunciation, both within words and within phrases, in several ways:

- If a word is drawn out for emphasis, the ASR is more likely to break the single word into two words.
- If two or more words are spoken quickly, they are more likely to be combined into one.

- This is less of a speed issue and more one of emphasis. In, for example, a two-syllable word, sometimes one syllable is emphasized and enunciated very clearly, while the non-emphasized syllable is pronounced very quickly or less clearly. While the word is perfectly understandable to a listener, the ASR system seems to have trouble with this, for instance by “guessing” wrong about the less-emphasized syllable. (A code was eventually added for “Emphasis on syllable or word.”)

The speaker’s accent also produced ASR errors, even though the accent did not seem to be very strong. The interviewee spoke excellent English but even slight variations in pronunciation were associated with errors. For example, an “au” sound pronounced as an “ah” sound was interpreted differently (“me cars” for “because”). Similarly, the phrase “bake their own bread” became “baked her own bread,” possibly because the speaker pronounced “th” more like a “d.”

In addition to accent and words that sound similar to begin with, the ASR seems to have trouble recognizing words that are spoken quickly or slightly slurred (e.g., “we lived at” is interpreted as “related”). Some preliminary codes were added for poor pronunciation, but a more detailed section should be developed for that area. Some research in the field of speech disorders has examined common pronunciation problems among subjects with speech impediments, and could suggest some additional ways of identifying pronunciation problems. For example, Miller employs a taxonomy of errors made by speakers with impairments.^{iv} Hamid and Rashwan classify errors made by Arabic speakers using an automatic training system for reading the Qu’ran, which is written in formal Arabic that can differ significantly from colloquial Arabic.^v

Misdirected ASR Logic

The ASR system often seems to be hampered by its own logic, turning an initial error into a series of errors. Once one word is interpreted incorrectly, the system’s probability calculations are skewed—they are based on that wrong word. As a result, there are often entire phrases that are incorrect in the transcript but are common phrases in themselves.

Spelling

Letter-by-letter spelling poses additional challenges. When a proper name is introduced in the testimony, the speaker often spells it as well. This is important for the accuracy of the record and for transcription, but the ASR system consistently has difficulty recognizing when a word is being spelled. In the first segment examined for this study, the ASR does not seem to recognize pronunciation of individual letters, e.g., when spelling out a word. In the instance of the town Przemysl (pronounced PSHAM-ish), which is then spelled letter-by-letter in the testimony, the ASR attempts to interpret each individual letter as a word. This, combined with a misinterpretation of the name of the Polish town, renders that part of the transcript incomprehensible.

In the second segment examined in this study, ASR improves with letters but does not interpret proper names well. The system recognizes letters as letters (rather than words), but does not get all of the letters correct, and in some cases switches to words part way through the word being spelled. For example, when the speaker spells her parents’ names, the ASR recognizes individual letters as letters, even if they are not always recognized correctly.

In addition to failing to identify letters as letters, or to identify them correctly, the ASR does not seem to recognize the *relationship* between a word that is being spelled and the spelling that follows. As a result, an unfamiliar proper name is interpreted as a similar-sounding word or words (such as “sell us” for the name “Cyla”), even when the spelling of the name immediately follows.

Errors That Affect Retrieval

Errors that seem likeliest to affect retrieval are those that misidentify words likely to be search terms (proper names, “concept” words, etc.), and those that misidentify a concept that might be a basis for a search (e.g., the phrase “well-to-do” could be associated with affluence or wealth).

A word might affect comprehension or be difficult to guess from the context (e.g., “related times” vs. “we lived at times”), but have less impact on retrieval if the mistaken word occurs in isolation and would be an unlikely search term or concept. At the same time, an error like “related” for “we lived at” could lead to irrelevant search results if, for example, someone was looking for information on relatives or related people.

Misidentified proper names would have a very high impact on retrieval, since people are likely to search on a name they know, whether of a place or a person.

Probability of Inferring the Correct Word

The “probability” code, initially one broad category, was broken down into finer-grained codes addressing the likelihood of guessing the right word with no context, local context, or global context. In many cases, context would help significantly (assuming the context is more or less correct and can provide accurate cues). In others, it would not, for example:

- **The text still makes sense with the error:** In some cases, the ASR system got the word wrong, but the mistaken word still makes sense or is at least plausible in the context of the transcript. This would make it much harder to guess the correct word, but it also decreases the word’s importance for understanding the transcript (or at least, it makes it less important to have exactly the right word).
- **The error is so outlandish that no amount of context would help with comprehension:** In these cases, the phrase or word bears no resemblance in either sound or meaning to the correct word(s). Most often, this occurs with phrases in which the ASR transcription is very far removed from a combination of words that makes sense syntactically or semantically (e.g., “being non reach higher out” for “being an only child,” or “everyone was door in the army” for “everyone was doting over me”).
- **The error replaces an extraneous sound with a word:** When the ASR program reads an extraneous sound (e.g., “uh,” “um”) as a word, it seems unlikely that a user would guess that is the case. More likely, a user might try to guess an actual word, or simply ignore what the ASR has inserted.

One important caveat about the probability coding: judgments about whether the correct word could be inferred in context (local or global) were based on it might be inferred in the *correct* context. Often, the number of other errors in the segment make it impossible to establish context, so I assumed an ideal situation in which the reader otherwise knew the correct surrounding words. (For example, could a reader guess that “table are” should be “tablecloth” if he or she knew that the passage was describing an incident with a tablecloth? The reader would not know this from the ASR transcript, since the system never gets “tablecloth” right.)

Semantic and Syntactic Relationships

The codes addressing semantic and syntactic relationships suggest possible cues in the surrounding text that might help the ASR identify words correctly. One straightforward example is if the word is part of an idiom. If the ASR system “knows” the idiom, it is much more likely to identify the word correctly. Other reasons are murkier. Two codes I defined so far that fall in this category are “Logic of Context (Related Meanings)” and “Logic of Structure (Repeated Words)” both described below. A good illustration of both of these is the phrase “buy a kilo or two kilos of flour,” interpreted by the ASR as “buy a chela but two killers of flour.”

- **Logic of context:** This code is intended to address semantic context in a general sense, rather than specific instances of mismatched words. To use the example above, flour is typically sold and measured by weight, and a kilo is a unit of weight. If the ASR system could recognize both of these facts, it could interpret that “kilo” fits logically with buying flour. A chela is a pincerlike claw. The word has no relationship to the context preceding it, and there is nothing logical to follow it in the context of the rest of the sentence.

The “logic of context” code deals with a semantic issue, but is different from the more specific semantic matching categories under “Semantic Matching.” It is intended for cases in which the overall context of the sentence should suggest the right word, but the misidentified word is not necessarily mismatched with those around it—it is simply the wrong word. It might be awkward in the context of the sentence, but is not a blatant semantic mismatch.

- **Logic of structure:** Sometimes it is reasonable to expect repetition of a word in a sentence. “A [blank] or two [blanks]” is a logical structure. If the ASR program had correctly gotten the word “kilo” the first time around, and the word “or” instead of “but,” it may correctly have interpreted that “kilos” made sense in the structure of the sentence.

These codes seem to apply most often, but not exclusively, when there is no obvious semantic or syntactic matching problem, but rather the system might be able to draw on another relationship in the sentence. For example, a phrase may make sense semantically and syntactically but simply not fit the broader context of the sentence -- it is not “about” what the rest of the sentence is about.

Recommendations and Possible Future Directions

Utility of the qualitative analysis program Atlas.ti for This Study

Overall, Atlas.ti was a good choice of software for this analysis. That said, there are a number of challenges to working with the program. The strengths and weaknesses I perceived are outlined below.

Strengths

- **Atlas.ti is a powerful program that can accommodate multiple types of data and multiple methods of analysis.** Data can be in various formats, such as text, audio, and graphics. Within a single “hermeneutic unit” (essentially the collection of files that makes up a “project”), it is possible to have multiple primary documents in different formats.
- **The program is flexible.** There are many options for reviewing and organizing the same data, and the program can accommodate increasingly complex information.

Weaknesses

- **Many features of the program are not intuitive.** For example, it is fairly easy to create a hierarchy of codes, but how to do so is not readily apparent.
- **The program has some technical “quirks” that, if unnoticed, can lead to serious errors in data-gathering (see below).**
- **Organization, presentation, and output of data are not always intuitive.**
- **The program’s capabilities can be confusing for a new user.** While this is not a drawback to someone experienced with the program, a new user of Atlas.ti can become mired down in the many choices for analyzing the data. It could take more experience with the program to take full advantage of its capabilities.

One problem encountered initially is in the way Atlas.ti automatically assigns quotations in a sequence. For example, if a long quote, #5, is broken into three shorter quotes, those three quotes will be assigned numbers at the very end of the list (e.g., #100, 101, 102). The fact that they are close together in the text was not reflected; the number is automatically assigned. There is an easy solution—to sort the quotations by “start” (the starting point in the text), so that it would not matter if they were in a different numerical sequence. This was not too difficult to find, but not immediately apparent since the default is to sort by identification number.

Atlas.ti also has a number of small technical quirks that at a minimum, can be frustrating to keep in mind, and at worst, could cause serious problems with data-gathering or coding if the researcher is unaware of them. One has to do with navigating among quotations in the quotation manager (the window that displays the list of quotations). To reach a quotation in the text, the user must double-click on it in the quotation manager. However, by single-clicking on a quotation in the quotation manager, the user sees the comments associated with the quote, and can open and modify a network view showing all the codes and other items assigned to the quote, including cutting links from codes to the quotation (unassigning them). While reviewing a quotation in this way, additional codes may come to mind. If the user only single-clicked the quotation, however, the new codes will be assigned to the previous quotation highlighted. The

user is only “on” the new quotation in the quotation manager, but not in the text. Without being aware of this (or forgetting it), it is very easy to assign codes to the wrong quotation.

In addition, the effect of single- versus double-clicking is not uniform throughout the program. For example, when viewing all the quotations associated with a particular code, double-clicking on a quotation will close the window displaying the entire list. From that view, single-clicking will move among the quotations in the list associated with the code, the quotation in the text, and the quotation as listed in the quotation manager. This inconsistency can be confusing.

Another quirk that can cause problems is that, after the boundaries of a quotation are modified, it is necessary to move to another quotation and then back to the modified one before adding new codes. Otherwise, the program seems to create a duplicate quotation to which the new codes are added (e.g., the original quote might have five codes, and the duplicate would have the three new codes, rather than all codes being under a single quotation).

Research Design Recommendations

Pilot studies are exploratory, and the process of conducting them can both suggest future research questions and lay the groundwork for improved methodologies. Some ideas for streamlining the research process are suggested in this section, and possible directions for future studies are outlined in the following section.

This type of research is inherently time-consuming, particularly given the high error rate of the ASR-produced transcripts. Listening generally takes more time than reading. There is the time that a recorded passage takes to be played, as well as the time involved in rewinding, listening again, and stopping at the appropriate time. In analyzing reasons for a particular error, one time through is usually not enough. In particular, the nature of the error and its cause cannot always be deciphered immediately.

While it would still be labor-intensive, the process could be streamlined considerably for future tests of the coding scheme. Often it is necessary to listen to the error several times in order to identify the correct statement, the nature of the error, and possible causes for it. The pilot nature of this project posed additional challenges because the same errors had to be recoded multiple times as the error-coding scheme grew and changed. Initial coding was time-consuming, but every time a new code was introduced, it was necessary to start again from the beginning for the sake of completeness. Therefore, the first time-saver for future researchers would be the availability of a thorough coding scheme with a hierarchical structure that allows for new codes to be added easily.

Another useful tool for future studies would be clear instructions for the coding process. Once the coding scheme is established, what should be coded every time? Are any types of codes optional? If not, should a “not applicable” code be added for each type of code? The goal of this system would be that, barring the creation of new codes, a segment of a testimony could be coded completely the first time through.

A laptop computer was very helpful for this project. The audio recordings were available only at MALACH labs, and the Atlas.ti program was on a laptop, making it possible to listen and code simultaneously but review the results elsewhere. Atlas.ti is designed to accommodate data in multiple formats, including audio. It would be extremely useful to be able to import the audio segments into Atlas.ti, for both organizational purposes and mobility of the research. A single “hermeneutic unit” (essentially, an entire project) in Atlas.ti can contain multiple source documents in multiple formats. Having the audio and text passages in the same place would streamline the analytical process and likely would allow the researcher to see connections more clearly. For example, audio quotations could be linked to corresponding textual quotations and codes. It would also be useful in the future to treat each segment as a separate “primary document” in Atlas.ti, rather than putting all of them in a single document. Segments from the same testimony could still be linked within the program.

Conclusion and Possible Directions for Future Study

As noted above, this study was based on an extremely small sample of ASR-transcribed text. In future studies, the existing coding scheme could be tested with a larger number of segments from additional testimonies in the MALACH collection, as well as further segments from the testimony examined here. It would be interesting to test the scheme in different parts of a testimony to explore, for example, whether more emotional speech produces more or different errors in the ASR transcription. It is also possible that emotional speech could contain more errors on the speaker’s part.

The ASR transcription errors were frequent and often substantial, building on each other to render passages incomprehensible. A number of the errors suggest that the ASR system’s logic at times exacerbates mistakes by pointing to words that may occur more commonly but are not correct in the context. The surrounding language could offer semantic and syntactic cues for the system that might improve accuracy. It would be useful to explore whether ASR models that take the linguistic context into account would be practical or feasible.

References

ⁱ MALACH project homepage, <http://www.clsp.jhu.edu/research/malach>.

ⁱⁱ Samuel Gustman and others, "Supporting Access to Large Digital Oral History Archives," in *Proceedings of the Joint Conference on Digital Libraries* (Portland, OR, July 2002), 23.

ⁱⁱⁱ Sadaoki Furui, "Automatic Speech Recognition and its Application to Information Extraction," in *Proceedings of the 37th Annual Meeting of the Association for Computational Linguistics on Computational Linguistics* (College Park, MD, 1999), 11-20.

^{iv} N. Miller, "Pronunciation Errors in Acquired Speech Disorders: The Errors of Our Ways," *European Journal of Disorders of Communication* 30 (1995) 346-362.

^v Salah Eldeen Hamid and Moshen Rashwan, "Automatic Generation of Hypotheses for Automatic Diagnosis of Pronunciation Errors," in *Proceedings of NEMLAR Conference on Arabic Language Resources and Tools* (Cairo, Egypt, 2004). For conference information, access http://www.elda.org/nemlar-conf/article.php?id_article=159.

Appendix 1

Coding Scheme for ASR Errors

A Types of Errors

- A1 WORD SUBSTITUTION
 - A1.1 One word for two (or more)
 - A1.2 Two (or more) words for one
 - A1.3 Misidentified word boundaries
 - A1.4 Similar-Sounding Words
- A2 DROPPED WORD
- A3 EXTRA WORD
- A4 OTHER ERROR

B Reasons for Errors

- B1 WORD NOT IN MAIN LANGUAGE
 - B1.1 Language (German)
 - B1.2 Language (Polish)
- B2 PRONUNCIATION & SPEECH ISSUE
 - B2.1 Accent of speaker
 - B2.2 Pace (Change in Speed)
 - B2.3 Pace (Fast)
 - B2.4 Pace (Slow)
 - B2.5 Speaker self-interruption
 - B2.6 Emphasis on syllable or word
 - B2.7 Long pause
 - B2.8 Extraneous sound

B2.9 Poor Pronunciation

B2.9.1 Poor beginning consonant

B2.9.2 Poor middle consonant

B2.9.3 Poor ending consonant

- B3 PROPER NAME
 - B3.1 Proper name (Person)
 - B3.2 Proper name (Place)
- B4 MISDIRECTED ASR LOGIC
- B5 SPELLING (LETTER-BY-LETTER)
- B6 TECHNICAL ISSUE
 - B6.1 Quiet/off-mic
- B7 UNCLEAR CAUSE

C Effects of Errors

- C1 LEVEL OF IMPORTANCE FOR COMPREHENSION
 - C1.1 Comprehension (High)
 - C1.2 Comprehension (Medium)
 - C1.3 Comprehension (Low)
- C2 LEVEL OF IMPORTANCE FOR RETRIEVAL
 - C2.1 Retrieval (High)

- C2.2 Retrieval (Medium)
- C3 PROBABILITY OF INFERRING WORD
 - C3.01 Probability (High)
 - C3.02 Probability (Medium)
 - C3.03 Probability (Low)
 - C3.1 Probability of Inferring Word w/o Context
 - C3.1.1 No Context (High)
 - C3.1.2 No Context (Medium)
 - C3.1.3 No Context (Low)
 - C3.2 Probability of Inferring Word w/ Local Context
 - C3.2.1 Local Context (High)
 - C3.2.2 Local Context (Medium)
 - C3.2.3 Local Context (Low)
 - C3.3 Probability of Inferring Word w/ Global Context
 - C3.3.1 Global Context (High)
 - C3.3.2 Global Context (Medium)
 - C3.3.3 Global Context (Low)

D Contextual Cues

- D1 SEMANTIC/SYNTACTIC RELATIONSHIP
 - D1.1 Idiom
 - D1.2 Logic of context (related meanings)
 - D1.3 Logic of structure (repeated words)
 - D1.4 Other Relationship
- D2 SYNTACTIC MATCHING
 - D2.1 Missing article
 - D2.2 Verb form
 - D2.3 Missing subject
 - D2.4 Missing verb
 - D2.5 Missing conjunction
 - D2.6 Missing object
 - D2.7 Extra word
 - D2.8 Wrong part of speech
 - D2.9 Other syntax issue
- D3 SEMANTIC MATCHING
 - D3.1 Adjective with noun
 - D3.2 Verb with subject
 - D3.3 Verb with object
 - D3.4 Preposition with object
 - D3.5 Appropriate conjunction
 - D3.6 Subject with possessive
 - D3.7 Other semantic issue

Appendix 2

Coding Scheme With Examples

A Types of Errors

A1 WORD SUBSTITUTION

A1.1 One word for two (or more)

- “related” for “we lived at”
- “and” for “in a”
- “littler” for “little liver”

A1.2 Two (or more) words for one

- “in January” for “ingenuity”
- “uh bringing” for “upbringing”
- “by Germans” for “vitamins”

A1.3 Misidentified word boundaries

- “being **non reach higher out**” for “being **an only child**”
- “people had to **baked her** own bread” for “people had to **bake their** own bread”
- “everything or a” for “every single day”

A1.4 Similar-Sounding Words

- “governors” for “governess”
- “washed” for “watched”
- “**her patient** mountains” for “**Carpathian** Mountains”

A2 DROPPED WORD

- “or dollar” for “or **a** dollar”
- “mother inventions” for “mother **of** inventions”
- “hear later” for “hear **it** later”

A3 EXTRA WORD

- “I was and the” for “I was the”
- “and to my sister and” for “into my system”
- “and” for [pause]

A4 OTHER ERROR

- “they” for “that”
- “is” for “with”
- “eight on trucks” for “eight ounce glass”

B Reasons for Errors

B1 WORD NOT IN MAIN LANGUAGE (*note: very few errors fell into this category in the portions of the testimony reviewed*)

B1.1 Language (German)

- “struggle” for “strudel”

B1.2 Language (Polish)

- “shammy dish” for “Przemysl” (the name of a town, pronounced “PSHAM-ish”)
- “a lot of” for “zloty”

B2 PRONUNCIATION & SPEECH ISSUE

B2.1 Accent of speaker

- “chela” for “kilo”
- “all **their** long” for “all **day** long”
- “sport” for “spoiled”

B2.2 Pace (Change in Speed) (*This typically applies to an entire phrase, rather than a single word*)

- “**related** times **were** there was no **already** baked bread” for “**we lived at** times **where** there was no **ready** baked bread”
- “and uh scrabble or” for “on the scrub board”
- “learned a lot of like the fire” for “weren’t allowed to light the fire”

B2.3 Pace (Fast)

- “he just **a** few sacks” for “he just **had** few sacks”
- “they” for “that”
- “was seized” for “with yeast”

B2.4 Pace (Slow)

- “know and” for “learn
- “I I he” for “I”
- “are” for “uh”

B2.5 Speaker self-interruption

- “**me** uh” for “**a** uh” (“I had to make a, uh, cover up a hole ...”)
- “was a **store wouldn’t burning store**” for “was a **sto- a wooden-burning stove**”
- “bees” for “be s-” (“I would be s- they send me ...”)

B2.6 Emphasis on syllable or word

- “me cars” for “because” (be-CAUSE; second syllable heavily emphasized)
- “later” for “liver” (first syllable is spoken quickly, second is drawn out)
- “teen” for “routine” (rou-TINE; second syllable heavily emphasized)

B2.7 Long pause

- “I was and the” for “I was the” (pause/small sound between “was” and “the”)

- “are you was part” for “I was taught”
(*In the audio, there is a long pause between “I” and “was.” The “I” is drawn out for a moment, then cut off, followed by a pause, then the word “was.” The strong “w” at the beginning of “was,” coming after the pause, seems to be enough for the ASR to read it as 2 words. Also, because the “I” is drawn out, the ASR picks it up as “are.” This sometimes happens with “uh” as well.*)
- “**and to my sister and**” for “**into my system**” (pause after “system”; ASR adds “and”)

B2.8 Extraneous sound

- “on a” for “um”
- “it played” for “uh play”
- “are” for “uh”

B2.9 Poor Pronunciation

B2.9.1 Poor beginning consonant

B2.9.2 Poor middle consonant

B2.9.3 Poor ending consonant

B3 PROPER NAME

B3.1 Proper name (Person)

- “leap shark” for “Liebschard”
- “new and” for “Lewin”
- “louanne” for “Lewin”

B3.2 Proper name (Place)

- “alisa are” for “Galicia”
- “**her patient** mountains” for “**Carpathian** Mountains”
- “shammy dish” for “Przemysl”

B4 MISDIRECTED ASR LOGIC

- “gold chains” for “coats, suits”
- “work to do” for “well to do”
- “part of the **family**” for “part of the **fabric**”

B5 SPELLING (LETTER-BY-LETTER)

- “he ours is we be and why i as i know” for “P R Z E M Y S L”
- “l i e b b a c h a r d” for “L I E B S C H A R D”
- “s c h o l e a r l y and he” for “C H O L E N T”

B6 TECHNICAL ISSUE (*These errors were rare, and occurred primarily when the interviewer was asking a question. Words were either misinterpreted, dropped, or both.*)

B6.1 Quiet/off-mic

- “were to tell us about that” for “[what were the names of your parents] and why don't you tell me something about them?”
- “talk about” for “talk **a little bit** about” (words dropped, apparently because

speaker was off the microphone)

B7 UNCLEAR CAUSE

- “door in the army” for “doting over me”
- “and and the helpers are well” for “and you do help yourself”
- “Jews” for “juice” (words sound similar, but “juice” makes sense in the context while “Jews” does not)

C Effects of Errors

C1 LEVEL OF IMPORTANCE FOR COMPREHENSION

C1.1 Comprehension (High)

- “while **ours twang**” for “while **I was playing**”
- “one **kirk into** to perform all the other **injuries**” for “one **cook and two** to perform all the other **duties**”
- “are you was part” for “**I was taught**”

C1.2 Comprehension (Medium)

- “she **washed** me practice piano” for “she **watched** me practice piano”
- “the **stuff**” for “the **stove**”
- “know and” for “learn” (*different sounds, but related meanings, make it possible to get general meaning if not actual word*)

C1.3 Comprehension (Low)

- “**wherever** there was else that I was doing” for “**whatever** there was else that I was doing”
- “the youngest **and** the large large family” for “the youngest **in** the large large family”
- “**this** socks” for “**the** socks”

C2 LEVEL OF IMPORTANCE FOR RETRIEVAL

(Errors expected to have little importance for retrieval were not coded for this category.)

C2.1 Retrieval (High)

- “sell us c y l a new and” for “Cyla, C Y L A, Lewin” (*proper names are likely to be searched*)
- “war I” for “water” (*mistaken references to war, Jews, Germans, etc. could skew retrieval in this database, pulling up irrelevant records*)
- “**work** to do” for “**well** to do” (“*well-to-do*” represents a concept of affluence or wealth, which could be a basis for searching)

C2.2 Retrieval (Medium)

- “related” for “we lived at” (*could produce misleading results for search for “relatives” or similar term; perhaps not the likeliest search term*)
- “was seized” for “with yeast” (*again, not necessarily likely search terms, but*

- *represent very different concepts and distinct words)*
- “a dress of” for “aggressive”

C3 PROBABILITY OF INFERRING WORD

(The following codes were left in the scheme because some errors were not yet reclassified under the new, more detailed probability codes. Examples are not given for the more general codes because they would be eliminated in future tests of the scheme.)

C3.01 Probability (High)

C3.02 Probability (Medium)

C3.03 Probability (Low)

C3.1 Probability of Inferring Word w/o Context

(See discussion of this coding area above.)

C3.1.1 No Context (High)

- “grandparents great grandparents” for “grandparents **or** great grandparents” *(seems evident that word is missing, likely “and” or “or”)*
- “i was **and** the” for “i was the” *(users likely to guess that “and” is an extraneous word)*
- “**and** the entrance” for “**at** the entrance”

C3.1.2 No Context (Medium)

- “other children to **players**” for “other children to **play with**”
- “**and a** kitchen” for “**in the** kitchen”
- “darren” for “darn”

C3.1.3 No Context (Low)

- “**in your** about” for “**you knew** about”
- “meadow” for “make dough”
- “**as** a very skinny child” for “**I was** a very skinny child” *(“as” does not make the passage incomprehensible, so users might not recognize it as an error)*

C3.2 Probability of Inferring Word w/ Local Context

(“Local context” refers to the segment.)

C3.2.1 Local Context (High)

- “all **their** long” for “all **day** long”
- “shining and doll” for “shiny and dull”
- “it **doesn’t** proper” for “it **isn’t** proper”

C3.2.2 Local Context (Medium)

- “bright meat” for “bribe me”
- “a lot of” for “zloty” *(described immediately after as “Polish money”)*
- “add up” for “adapt” *(in context of people helping themselves)*

C3.2.3 Local Context (Low)

- “and uh scrabble or” for “on the scrub board”
- “**that the I ran to my sister**” for “**get the iron into my system**”
- “better off” for “raw”

C3.3 Probability of Inferring Word w/ Global Context

(“Global context” refers to the entire testimony and/or general knowledge about the time and place.)

C3.3.1 Global Context (High)

- “**wouldn’t** burning” for “**wooden** burning”
- “little **and**” for “little **hand**” (*speaker is talking about scrubbing the floor*)
- “hall” for “hole” (*in context of having to learn to cover a hole in a damask tablecloth*)

C3.3.2 Global Context (Medium)

- “uh bringing” for “upbringing” (*talking about her mother and “the upbringing for the future”*)
- “e i s i n g” for “E I S I G” (*pronounced “Isaac”—might be inferred if user was familiar with that spelling of the name*)
- “chela” and “killers” for “kilo” and “kilos” (*discussed in context of selling flour; if user knew flour was sold in kilos, might guess correctly*)

C3.3.3 Global Context (Low)

- “being **non reach higher out**” for “being **an only child**” (*too far removed from either the sound of the words or a comprehensible statement to infer meaning with any type of context*)
- “gold chains” for “coats, suits” (*a plausible phrase in context of items sold in the family business*)
- “there” for “that” (*correct phrase is “that was quite an art”—the error does not affect meaning enough for a user to recognize the mistake*)

D Contextual Cues

D1 SEMANTIC/SYNTACTIC RELATIONSHIP

D1.1 Idiom

- “a rotten spoiled **care** from **work to do** family” for “a rotten spoiled **kid** from a **well to do** family” (*two idioms could help here: “rotten spoiled” and “well to do”*)
- “going there” for “go-getter”
- “quite **and parked**” for “quite **an art**”

D1.2 Logic of context (related meanings)

- “the **war i** had to be brought **a and that would** had to be chopped” for “the **water** had to be brought **in, the** wood had to be chopped” (*would help to recognize the general semantic context: bringing in water, chopping wood, lighting the fire,*

etc. are all related ideas)

- “how **long meadow** for the **struggle**” for “how **to make dough** for the **strudel**” (*general context deals with learning to bake*)
- “eight **on trucks**” for “eight **ounce glass**” (context deals with having to drink vegetable juice to get more iron and vitamins)

D1.3 Logic of structure (repeated words)

- “buy a **chela but** two **killers** of flour” for “buy a **kilo or** two **kilos** of flour”
- “**out aware** business **harder** means **gold chains** jackets and so on” for “**outerwear** business, **outerwear** means **coats, suits,** jackets and so on”
- “**darren** all **this** socks had to be **done**” for “**darn,** all **the** socks had to be **darned**”

D1.4 Other Relationship (*There were very few of these, but the category might be expanded. The two errors coded this way both deal with the relationship between a name and its spelling, suggesting that a code could be added for that relationship as well.*)

- “louanne” for “Lewin” (*the name is spelled out correctly later in the sentence; even when it recognizes letters as letters, it fails to recognize the connection between a word and its spelling*)
- “e i s ing” for “E I S I G”

D2 SYNTACTIC MATCHING

D2.1 Missing article (*very few in this category*)

- “from work [to do family]” for “from **a** well [to do family]”
- “or dollar” for “or **a** dollar” (*talking about getting “a dollar a glass [of vegetable juice] or a dollar [for eating] a little liver”*)

D2.2 Verb form

- “people **had to baked** her own bread” for “people **had to bake** their own bread” (*“to baked” is not a syntactically acceptable verb form*)
- “it played” for “[uh] play” (*all surrounding verbs are in present tense*)
- “**were** always follow” for “**would** always follow”

D2.3 Missing subject

- “**in your** about” for “**you knew** about”
- “as” for “I was”
- “**as one and**” for “**is when I’m**”

D2.4 Missing verb

- “**in your** about” for “**you knew** about”
- “other children to **players**” for “other children to **play with**”
- “and and the” for “you do” (*full phrase: “and and the helpers are well” for “you do help yourself”*)

D2.5 Missing conjunction (*Only one error was coded this way*)

- “grandparents great grandparents” for “grandparents **or** great grandparents”

D2.6 Missing object

- “in January” for “ingenuity” (*“the in January of my mother ...”*)
- “later” for “liver” (*“I also had to eat better off ground later” for “I also had to eat raw ground liver”*)
- “hear later” for “hear **it** later”

D2.7 Extra word (3 errors)

- “I was **and** the” for “I was the”
- “on a” for “um”
- “better off” for “raw”

D2.8 Wrong part of speech

- “was seized” for “with yeast” (*“bake bread with yeast”*)
- “shining and doll” for “shiny and dull” (*should both be adjectives*)
- “with **them**” for “with **some**”

D2.9 Other syntax issue

- “he just **a** few sacks” for “he just **had** few sacks” (*verb is missing in ASR transcription, but speaker’s phrase was not grammatically correct*)
- “a **Jews** from vegetables from **beating** carrots and **tracks**” for “a **juice** from vegetables, from **beets and** carrots and **turnips**”
- “**what was** really a **doll that** was” for “**well, it wasn't** really a **dollar, it was**”

D3 SEMANTIC MATCHING

D3.1 Adjective with noun

- “**her patient** mountains” for “**Carpathian** Mountains”
- “shining and doll [designs]” for “shiny and dull [designs]”
- “sport” for “spoiled” (*i.e., being spoiled as a child*)

D3.2 Verb with subject

- “while ours twang” for “while I was playing” (*syntactically wrong also, but semantic matching would help if the ASR also identified correct parts of speech*)
- “by Germans” for “vitamins [were not available]”
- “that would” for “the wood [had to be chopped]”

D3.3 Verb with object

- “she **washed** me practice piano” for “she **watched** me practice piano”
- “**couldn't** do” for “**could** do” (*“I could do anything I pleased,” in context of talking about her indulged childhood*)
- “struggle” for “strudel” (*making dough for strudel*)

D3.4 Preposition with object

- “**and** the entrance” for “**at** the entrance”
- “door in the army” for “doting over me”

- “and” for “in a”

D3.5 Appropriate conjunction (*only two errors [entire phrase and subset of that phrase] coded for this; perhaps reconsider as a code, or test further*)

- “buy a **chela but** two **killers** of flour” for “buy a **kilo or** two **kilos** of flour”

D3.6 Subject with possessive (*only one error coded for this*)

- “her” for “their” (“*people had to bake their own bread*”)

D3.7 Other semantic issue

- “how **the** wash clean **salt**” for “how **to** wash, clean, **sew**”
- “house call” for “household”
- “tracks” for “turnips”

Appendix 3

ASR-Transcribed Segments

Note: The first two segments below were coded in the most detail. The third and fourth were coded to some degree, but due to time constraints were not recoded for syntactic and semantic matching or for the more detailed “probability” categories.

56149

h i ll you know are yeah yeah yeah yeah yeah yeah yeah the very why don t we start with you saying anything in your about grandparents great grandparents well as a small child i remember only one of my grandfathers and his wife his second wife he was selling flour and the type of business it was he didn t even have a store he just a few sacks of different flour and the entrance of an apartment building and people would pass by everyday and buy a chela but two killers of flour we have to remember related times were there was no already baked bread so people had to baked her own bread all the time for some strange reason i do remember fresh rolls where everyone would buy every day but not the bread so that was the business that s how he made a living where was this was the name of the town it wasn t shammy dish he ours is we be and why i as i know in southern poland and alisa are close to her patient mountains it was rather mid sized town and uhhuh i was and the only child and the family i had a governess who was with me all their long from the time i got up until i went to sleep she washed me practice piano she took me to ballet lessons she took me skiing and skating wherever there was else that i was doing being non reach higher out i needed other children to players and the governors were always follow me and stay with me while ours twang that i was a rotten spoiled care from work to do family the youngest and the large large family and everyone was door in the army

56150

were to tell us about that my mother s name was sell us c y l a new and her maiden name was leap shark l i e b b a c h a r d my mother was a dress of person that going there uhhuh organizer in the business my father was very capable but he rather had to have his rest everyday both of them were beautifully together they have established a very successful manufacturing of the out aware business harder means gold chains jackets and so on in my childhood i remember living in a very on a small apartment was no running water was very rough wooden floors and a kitchen was a store wouldn t burning store and eh we did have three housekeepers one kirk into to perform all the other injuries we have to remember the war i had to be brought a and that would had to be chopped fire had to be started there was quite a bit of work the thing that i remember very very specifically i have to emphasize again and again the in january of my mother the uh bringing for the future me cars when i was about eight nine years old are you was part everything there was to be down and house call regardless of or help everybody got a day off and i had to scrub the floor was my little and i was crying but they didn t matter the doors were locked and i couldn t come out and it was finished i remember washing laundry and uh scrabble or and putting on top of the stuff to boil the sheets is my little friends and then i had to take it out rinse it then hang it out outside to dry i was made to know and i was part hard to bake bread was seized all kinds of bakeries how long meadow for the struggle with my hands how the wash clean salt darren all this socks had to be done i even had to learn how to die i damask table are and if you

realize what there is at the table was that has shining and doll designs on it i had to make me a cover up a hall that looked exactly like part of the family and there was quite and parked but at that time every so called lady of the house had to learn how to do it i i he was not allowed to ride a bicycle because it isn t very nice it doesn t proper for lady to ride a bicycle i was suppose to write it played piano learn literature and things like that are in my childhood as a very skinny child by germans were not available so and all that too that the i ran to my sister a jews from vegetables from beating carrots and tracks and uh various healthy things was me and i had to bring in eight on trucks everything or a i also had to eat better off ground later with onions with them seasoning in it it was terrible but in order to bright meat to eat it i was getting a dollar a glass or dollar and littler and there was a lot of money what was really a doll that was a lot of which was polish money after i saved all the money i by my own piano so that was how they accomplished getting some vitamins and to my sister and the house hold was very very uh well kept we had a teen every single day are i was always catered to and i couldn t do anything that please what makes it so interesting when you hear later as one and suddenly left alone i m able to cope after being so sport and that s still a very big mystery to me it proves that a human being can add up and necessity as a mother inventions and and the helpers are well as my father s name was isaac louanne e i s ing isaac l e w i n was his last name and that was the family name good your birth date my birth date is june the eighth

56154

december when you talk about what your daily life was like well after realized i was a little girl going to public school during the day after works there were all the lessons and activities in the winter either an awful lot of ice skating and i was a very good ice skater figure i scared that then i would play with friends on the weekends there are things some of =em now are were my parents were religious that meant that on saturday i couldn t do very much i they went to the services i was hanging on outside was uh the kids making all the noise but afterwards we had to go home any the the daily me all they did and that was served in the middle of the day i m sorry day we learned a lot of like the fire as a result we ate what you call cholent s c h o l early and he well we is basically as any food that available it s put and the bakers on on on friday and cox very very slowly over night and saturday after services i would bees they send me to pick up that part of the hard part my brother and that s what we ate into the cholent you really luckily what was available at that time there were a lot of potatoes some kind of bones a piece of meat and beans on the edge of it was much different than we have two days certain one part me house but potatoes where there was a staple of poland because we had a laurin wait sometimes two or three times they potatoes and various

56162

i mean the day what life was like for you and i were silly day war two segments of jewish community the people that were very progressive and lived day my life and there were also certain people there were insisting on living the way people lived thousand years ago the guard the molded the style what they did all day long just variance started the bible there were some of those two armed medgar la well i really can t speak of figures right now but we did have a substantial jewish population in the city are as far as i was concerned i was terrible i went to public school or i spoke polish i didn t know one of learning area or you know first they hired the eh he eh religious man for me and all i did i pulled his beard and then they hire young women teacher and i was hiding under the table and running around in circles and i just didn t want any

part of it i have no idea why i wish i would learn the language because languages the language and you can use it i could use a nicely now but i haven t than that was the fight and many all my relatives went to they are days scold and then they lined up kind of history is a language and religious stars i presume i don t know if this actually what i didn t have any part of it so later now in my lifetime learning everyday learning and i can learn about it how were you aware that or i was not aware at all anti semitism many many of my friends were catholic it s a catholic country i was going to church i would go to the mass at christmas time mayors at twelve o clock and we were very very friendly but i m sorry to say when the men of the war broke out those friends they know me anymore i was like a prayer like cancer and they just abandon me completely but i did have all the catholic friends did your parents belong to any jewish organizations or institutions or political i do not think so no there was a very busy in the business they do not belong to political organizations is asians that policy line oriented but my parents as far as i can remember but you have to know i was a child and they didn t want me to know i did not know all about current events they a almost protected me from that i didn t know what was going on in the world what i have no i probably would have acted there

Appendix 4

Hand-Transcribed Segments

Note: Segmented versions of this testimony were not available (only the second half of the testimony had segments marked). The following excerpt from the testimony covers the material included in the segments reviewed.

audio_filename="00009-001"

Q this is an interview with Sidonia Lax S I D O N I A L A X the interviewer is Ellie Kahn E L L I E K A H N we're in Sherman Oaks California and it's July twelfth nineteen ninety four Sidonia why don't we start with you saying anything you knew about grandparents or great grandparents

A well as a small child I remember only one of my grandfathers and his wife his second wife he was selling flour and the type of a business it was he didn't even have a store he just had few sacks of different flour at the entrance of an apartment building and people would pass by everyday and buy a kilo or two kilos of flour we have to remember we lived at times where there was no ready baked bread so people had to bake their own breads all the time for some strange reason I do remember fresh rolls where everyone would buy everyday but not bread so that was the business that's how he made a living

Q where was this what was the name of the town and the country

A it was in Przemysl P R Z E M Y S L in southern Poland in Galicia close to Carpathian Mountains it was a rather mid sized town and [um] I was in the only child in the family I had a governess who was with me all day long from the time I got up until I went to sleep she watched me practice piano she took me to ballet lessons she took me skiing and skating whatever there was else that I was doing being an only child I needed other children to play with and the governess would always follow me and stay with me while I was playing yet I was a rotten spoiled kid from a well to do family the youngest in the large large family and everyone was doting over me

Q what were the names of your parents and why don't you tell me something about them

A my mother's name was Cyla s- C Y L A Lewin her maiden name was Liebschard L I E B S C H A R D my mother was a aggressive person the go getter organizer in the business my father was very capable but he rather had to have his rest everyday both of them worked beautifully together they have established a very successful manufacturing of the outerwear business outerwear means coats suits jackets and so on in my childhood I remember living in a very [um] small apartment was no running

water was very rough wooden floors in the kitchen was a sto- wooden burning stove and [uh] we did have three housekeepers one cook and two to perform all the other duties we have to remember the water had to be brought in the f- wood had to be chopped fire had to be started there was quite a bit of work the thing that I remember very very specifically I have to emphasize again and again the ingenuity of my mother the upbringing for the future because when I was about eight nine years old I was taught everything there was to be done in a household regardless of all the help everybody got a day off and I had to scrub the floor with my little hand I was crying but that didn't matter the doors were locked and I couldn't come out until it was finished I remember washing laundry on the scrub board and putting on top of the stove to boil the sheets with my little hands and then I had to take it out rinse it and hang it out outside to dry I was made to learn I was taught how to bake bread with yeast all kinds of bakeries how to make dough for the struddle with my hands how to wash clean sew darn all the socks had to be darned I even had to learn how to darn [uh] the mask tablecloth and if you realize what that is it's the tablecloth that has shiny and dull designs on it I had to make a [uh] cover up a hole that looked exactly like part of the fabric and that was quite an art but at time every so called lady of the house had to learn how to do it [uh] I was not allowed to ride a bicycle because it isn't very nice it isn't proper for a lady to ride a bicycle [laugh] I was suppose to write [uh] play piano learn literature and things like that [um] in my childhood I was a very skinny child vitamins were not available so in order to get the f- iron into my system a juice from vegetables from beets and carrots and turnips and [uh] various healthy things was made and I had to drink an eight ounce glass every single day I also had to eat raw ground liver with onions with some seasoning in it it was terrible but in order to bribe me to eat it I was getting a dollar a glass or a dollar a little liver and that was a lot of money well it wasn't really a dollar it was zloty which was Polish money after I saved all the money I buy it my own piano so that was how they accomplished getting some vitamins into my system the household was very very well kept we had a routine every single day [uh] I was always catered to and I could do anything I pleased what makes it so interesting when you hear it later is when I'm suddenly left alone I'm able to cope after being so spoiled and that's still a very big mystery to me it proves that a human being can adopt and necessity is a mother of inventions you do help yourself

Q what was your father's name

A my father's name was Eisig Lewin E I S I G Eisig L E W I N was his last name and that was the family name

Q and your birth date

A my birth date is June the eighth nineteen twenty seven

Q why don't you talk a little bit about what your daily life was like in that town

A well you have to realize I was a little girl going to public school during the day afterwards there were all the pleasants and activities in the winter I did an awful lot of ice skating and I was a very good ice skater figure ice skater [uh] then I would play with friends on the weekends there were outings some of them now our my parents were religious that meant that on Saturday I couldn't do very much I they went to the services I was hanging around outside with other kids making all the noise but afterwards we had to go home and eat the the daily meal the dinner that was served in the middle of the day on Saturday we weren't allowed to light the fire as a result we ate what you called cholent C H O L E N T what it means basically is any food that's available it's put into bakers oven on Friday and cooks very very slowly overnight and Saturday after services I would be s- they sent me to pick up that pot the hot pot and I brought it and that's what we ate into the cholent usually luckily what was available at that time there were a lot of potatos some kind of bones or piece of meat and beans and vegetables it isn't much different than we have today certain one pot meals but potatos were the was the staple of Poland and because we had a lot of it we ate sometimes two three times a day potatos in various shapes and forms

Q can you tell me something about [cross_talk_begin] the [cross_talk_end] Jewish community at that time how big it was what life was like for Jews in this city

A in our city there were two segments of Jewish community the people that are very progressive and lived a modern life and there were also certain people that were insisting on living the way people lived thousand years ago the garb the mode the style what they did all day long just study and study the Bible there were some of those too [um] majority well I really can't speak of figures right now but we did have a substantial Jewish population in the city [uh] as far as I was concerned I was a rebel I went to public school I spoke Polish I did not want to learn Yiddish or Hebrew first they hired [uh] [uh] a religious man for me and all I did I pulled his beard and then they hired a young woman teacher and I was hiding under the table and running around in circles and I just didn't want any part of it I have no idea why I wish I would learn the language because language is a language and you can use it I could use it nicely now but I haven't and that was the fact and many of my relatives went to a [uh] day school and then they learned all kinds of histories and language and religious stories I presume I don't know exactly what I didn't have any part of it so later now in my life I'm learning everyday and learning whatever I can learn about

Q as a child were you aware of any anti-Semitism before the war

A I was not aware at all of anti-Semitism many many of my friends were Catholic it's a Catholic country I was going to church I would go to the mass for Christmas high mass at twelve o'clock and we were very very friendly but I'm sorry to say when the minute the war broke out those friends didn't know me anymore I was like a pariah like a cancer and they just abandoned me completely but I did have

all the Catholic friends

Q did your parents belong to any Jewish organizations or institutions or political groups that you know

A I do not think so no they were very busy in the business they did not belong to political organizations but there were quite a number there were all kinds of Zionist organizations [uh] Palestine oriented but my parents as far as I can remember but you have to know I was a child and they didn't want me to know I did not know about current events they [uh] almost protected me from that I didn't know what was going on in the world would I have known I probably would have

acted differently but I didn't know so [um]

Appendix 5

Quotations (ASR Errors) with Comments

P 1: Interview9.doc - 1:1 [h i ll you know are yeah yeah ..] (3:3) (Super)

Codes: [B6.1 Quiet/off-mic]

h i ll you know are yeah yeah yeah yeah yeah yeah the very

Comment:

Introductory material -- in audio & hand-transcription, interviewer pronounces and spells interviewee's name and her own name, and gives location and date of interview.

P 1: Interview9.doc - 1:2 [in your about] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.3 Missing subject] [D2.4 Missing verb]

in your about

Comment:

Should be: "**you knew** about"

* syntax -- "about" should be preceded by verb

P 1: Interview9.doc - 1:96 [grandparents great grandparent..] (3:3) (Super)

Codes: [A2 DROPPED WORD] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.1 No Context (High)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.5 Missing conjunction]

grandparents great grandparents

Comment:

Actual: "grandparents **or** great grandparents"

*dropped word

P 1: Interview9.doc - 1:3 [he just a few sacks] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [B4 MISDIRECTED ASR LOGIC] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue] [D3.3 Verb with object]

he just a few sacks

Comment:

Actual: "he just **had** few sacks"

* misdirected logic combined w/ fast pace of pronunciation and accent/manner of speech of speaker -- "a few" seems the most likely phrase from a probability perspective

* the speaker's statement was not grammatically correct -- should have been "he just **had a few** socks"

P 1: Interview9.doc - 1:97 [and the entrance] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.1 No Context (High)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D3.4 Preposition with object]

and the entrance

Comment:

Actual: "**at** the entrance"

* if earlier syntax were correct (i.e., verb was present), then this part would be syntactically correct

P 1: Interview9.doc - 1:4 [buy a chela but two killers of.] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.2 Pace (Change in Speed)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.2 Global Context (Medium)] [D1.2 Logic of context (related meanings)] [D1.3 Logic of structure (repeated words)] [D3.5 Appropriate conjunction]

buy a chela but two killers of flour

Comment:

Should be: "a **kilo or** two **kilos** of flour"

* syntax ok? -- "but" should be "or," but basic construction of noun-conjunction-noun is right

P 1: Interview9.doc - 1:98 [chela] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.7 Long pause] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D3.3 Verb with object]

chela

Comment:

Actual: "**kilo**"

* long pause after "kilo"

P 1: Interview9.doc - 1:99 [but] (3:3) (Super)

Codes: [A4 OTHER ERROR] [B2.3 Pace (Fast)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D3.5 Appropriate conjunction]

but

Comment:

Actual: "**or**"

P 1: Interview9.doc - 1:100 [killers] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D1.3 Logic of structure (repeated words)] [D3.3 Verb with object]

killers

Comment:

Actual: "**kilos**"

P 1: Interview9.doc - 1:101 [related] (3:3) (Super)

Codes: [A1.1 One word for two (or more)] [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.2 Global Context (Medium)]

related

Comment:

Actual: "**we lived at**"

* unsure what semantic or syntactic matching would help -- syntax is correct ("related" functions as an adjective before "times"), and semantically the phrase "related times" is plausible.

P 1: Interview9.doc - 1:5 [related times were there was n..] (3:3) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [D2.9 Other syntax issue]

related times were there was no already baked bread

Comment:

Should be: "**we lived at** times **where** there was no **ready** baked bread"

P 1: Interview9.doc - 1:102 [were] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.3 Comprehension (Low)] [C3.01 Probability (High)] [C3.1.1 No Context (High)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.9 Other syntax issue]

were

Comment:

Actual: "**where**"

P 1: Interview9.doc - 1:288 [no already baked] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [C1.3 Comprehension (Low)] [C3.1.1 No Context (High)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)]

no already baked

Comment:

Actual: " no **ready** baked"

P 1: Interview9.doc - 1:6 [people had to baked her own br..] (3:3) (Super)

Codes: [A1.3 Misidentified word boundaries] [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.2 Verb form]

people had to baked her own bread

Comment:

Should be: "**bake their** own bread"

* seems largely accent-related ("th" in "their" sounds like "t").

* "to baked" -- incorrect syntax -- wrong verb form

P 1: Interview9.doc - 1:289 [baked] (3:3) (Super)

Codes: [A1.3 Misidentified word boundaries] [C1.3 Comprehension (Low)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.2 Verb form]

baked

Comment:

Actual: **"bake"**

P 1: Interview9.doc - 1:290 [her] (3:3) (Super)

Codes: [A1.3 Misidentified word boundaries] [B2.1 Accent of speaker] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D3.6 Subject with possessive]

her

Comment:

Actual: **"their"**

P 1: Interview9.doc - 1:291 [was the name of the town] (3:3) (Super)

Codes: [A2 DROPPED WORD] [B6.1 Quiet/off-mic]

was the name of the town

Comment:

Actual: **"what** was the name of the town **and the country"**

* dropped words

P 1: Interview9.doc - 1:292 [it wasn t] (3:3) (Super)

Codes: [A1.1 One word for two (or more)] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D1.2 Logic of context (related meanings)] [D3.3 Verb with object] [D3.7 Other semantic issue]

it wasn t

Comment:

Actual: "it **was in**"

* meaning is opposite to intended

P 1: Interview9.doc - 1:293 [shammay dish] (3:3) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B1.2 Language (Polish)] [B3.2 Proper name (Place)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.2 Global Context (Medium)]

shammay dish

Comment:

Actual: **"Przemysl"** (pr: PSHAM-ish)

P 1: Interview9.doc - 1:7 [he ours is we be and why i as ..] (3:3) (Super)

Codes: [B5 SPELLING (LETTER-BY-LETTER)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)]

he ours is we be and why i as i know

Comment:

Actual: "**P-R-Z-E-M-Y-S-L**"

P 1: Interview9.doc - 1:294 [and] (3:3) (Super)

Codes: [A1.3 Misidentified word boundaries] [A1.4 Similar-Sounding Words] [C1.3 Comprehension (Low)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.8 Wrong part of speech] [D3.4 Preposition with object]

and

Comment:

Actual: "**in**"

P 1: Interview9.doc - 1:104 [alisa are] (3:3) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.3 Misidentified word boundaries] [B2.4 Pace (Slow)] [B2.6 Emphasis on syllable or word] [B3.2 Proper name (Place)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue] [D3.4 Preposition with object]

alisa are

Comment:

Actual: "**Galicia**"

* speaker emphasizes last syllable -- "Galici-aaah" -- ASR gets "alisa are"

P 1: Interview9.doc - 1:105 [her patient mountains] (3:3) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B3.2 Proper name (Place)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D3.1 Adjective with noun]

her patient mountains

Comment:

Actual: "**Carpesian** mountains"

P 1: Interview9.doc - 1:8 [i was and the] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [A3 EXTRA WORD] [B2.1 Accent of speaker] [B2.4 Pace (Slow)] [B2.7 Long pause] [B2.8 Extraneous sound] [C1.3 Comprehension (Low)] [C3.1.1 No Context (High)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.7 Extra word] [D3.3 Verb with object]

i was and the

Comment:

Should be: "**I was the**"

- in audio, pause/small sound between "was" and "the"

P 1: Interview9.doc - 1:106 [only child and the family] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B7 UNCLEAR CAUSE] [C1.3 Comprehension (Low)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.8 Wrong part of speech] [D3.4 Preposition with object]

only child and the family

Comment:

Actual: "only child **in** the family"

* use of "and" creates a sentence fragment

P 1: Interview9.doc - 1:9 [all their long] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D1.1 Idiom] [D2.6 Missing object]

all their long

Comment:

Should be: "all **day** long"

* semantic matching?

P 1: Interview9.doc - 1:10 [she washed me practice piano] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.2 Comprehension (Medium)] [C3.1.1 No Context (High)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D3.3 Verb with object]

she washed me practice piano

Comment:

Should be: "she **watched** me practice piano"

P 1: Interview9.doc - 1:11 [wherever] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D3.3 Verb with object]

wherever

Comment:

Actual: **whatever**

* actual sentence has unusual, if not incorrect, grammatical construction -- "**whatever there was else** that I was doing," instead of "**whatever else there was** that I was doing" -- seems more an issue of unusual construction than incorrect syntax

* syntax seems ok (might say "wherever else I was going")

* semantic matching -- mismatch between "wherever" and "doing"

P 1: Interview9.doc - 1:110 [being non reach] (3:3) (Super)

Codes: [A1.1 One word for two (or more)] [A1.3 Misidentified word boundaries] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue]

being non reach

Comment:

Actual: "being **an only** [ch]"

Note: combines "non" and "rea" (beginning of "reach" -- "ch" is actually beginning of next word, "child")

* Syntax: "non reach" not a noun

P 1: Interview9.doc - 1:12 [being non reach higher out] (3:3) (Super)

Codes: [A1.1 One word for two (or more)] [A1.2 Two (or more) words for one] [A1.3 Misidentified word boundaries] [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.1 Idiom] [D2.9 Other syntax issue] [D3.1 Adjective with noun]

being non reach higher out

Comment:

Actual: "being **an only child**"

P 1: Interview9.doc - 1:111 [reach higher out] (3:3) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.3 Misidentified word boundaries] [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue]

reach higher out

Comment:

Actual: "**child**"

* Takes "ch" sound from end of reach

P 1: Interview9.doc - 1:13 [other children to players] (3:3) (Super)

Codes: [A1.1 One word for two (or more)] [B2.1 Accent of speaker] [B2.6 Emphasis on syllable or word] [C1.2 Comprehension (Medium)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D1.2 Logic of context (related meanings)] [D2.4 Missing verb]

other children to players

Comment:

Actual: "other children to **play with**"

P 1: Interview9.doc - 1:295 [the governors were always foll..] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [A4 OTHER ERROR] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D1.2 Logic of context (related meanings)] [D2.2 Verb form]

the governors were always follow

Comment:

Actual: "the **governess would** always follow"

P 1: Interview9.doc - 1:14 [governors] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.3 Comprehension (Low)] [C2.1 Retrieval (High)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)]

governors

Comment:

Actual: **governess**

P 1: Interview9.doc - 1:107 [were always follow] (3:3) (Super)

Codes: [A4 OTHER ERROR] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.2 Verb form]

were always follow

Comment:

Actual: "**would** always follow"

P 1: Interview9.doc - 1:15 [while ours twang] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.4 Missing verb] [D2.9 Other syntax issue] [D3.2 Verb with subject]

while ours twang

Comment:

Actual: "while **I was playing**"

P 1: Interview9.doc - 1:108 [ours] (3:3) (Super)

Codes: [A1.1 One word for two (or more)] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue] [D3.2 Verb with subject]

ours

Comment:

Actual: "**I was**"

P 1: Interview9.doc - 1:109 [twang] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [B2.6 Emphasis on syllable or word] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue]

twang

Comment:

Actual: "**playing**"

Note: "playing" pronounced as one drawn-out syllable

P 1: Interview9.doc - 1:112 [a rotten spoiled care] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.2 Comprehension (Medium)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D1.1 Idiom] [D3.1 Adjective with noun]

a rotten spoiled care

Comment:

Actual: "a rotten spoiled **kid**"

P 1: Interview9.doc - 1:16 [a rotten spoiled care from wor..] (3:3) (Super)

Codes: [B2.1 Accent of speaker] [D1.1 Idiom] [D1.2 Logic of context (related meanings)] [D2.1 Missing article]

a rotten spoiled care from work to do family

Comment:

Actual: "a rotten spoiled **kid** from **a well-to-do** family"

P 1: Interview9.doc - 1:113 [from work] (3:3) (Super)

Codes: [A2 DROPPED WORD] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.1 Missing article]

from work

Comment:

Actual: "from **a well**"

***dropped word**

P 1: Interview9.doc - 1:114 [work to do] (3:3) (Super)

Codes: [B4 MISDIRECTED ASR LOGIC] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D1.1 Idiom] [D2.9 Other syntax issue]

work to do

Comment:

Actual: "**well to do**"

* possible ASR logic/probability issue -- "work to do" as in, "there's work to do"

P 1: Interview9.doc - 1:17 [and the large large family] (3:3) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.9 Other syntax issue] [D3.4 Preposition with object]

and the large large family

Comment:

Actual: "**in** the large large family"

P 1: Interview9.doc - 1:115 [door in] (3:3) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D3.2 Verb with subject]

door in

Comment:

Actual: "**doting**"

P 1: Interview9.doc - 1:18 [door in the army] (3:3) (Super)

Codes: [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.1 Idiom] [D2.9 Other syntax issue] [D3.2 Verb with subject] [D3.4 Preposition with object]

door in the army

Comment:

Actual: "**doting over me**"

P 1: Interview9.doc - 1:116 [the army] (3:3) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.3 Misidentified word boundaries] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue] [D3.4 Preposition with object]

the army

Comment:

Actual: "**over me**"

P 1: Interview9.doc - 1:19 [were to tell us about that] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B6.1 Quiet/off-mic] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.2 Global Context (Medium)]

were to tell us about that

Comment:

Actual: "[What were the names of your parents] and why don't you tell me something about them?"

P 1: Interview9.doc - 1:118 [sell us c y l a] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.3 Misidentified word boundaries] [B3.1 Proper name (Person)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D3.7 Other semantic issue]

sell us c y l a

Comment:

Actual: "**Cyla** c y l a"

* Correct word could be inferred because the subsequent spelling is correct. Even though ASR recognizes that individual letters are being pronounced (i.e., does not try to turn each letter into a word), it does not make the connection that the letters are spelling out the word preceding them.

P 1: Interview9.doc - 1:20 [sell us c y l a new and] (6:6) (Super)

Codes: [B3.1 Proper name (Person)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [D2.9 Other syntax issue] [D3.7 Other semantic issue]

sell us c y l a new and

Comment:

Actual: "**Cyla**, c y l a, **Lewin**"

* Semantic matching: ASR doesn't recognize that proper names would follow the phrase "my mother's name was."

P 1: Interview9.doc - 1:119 [new and] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [B3.1 Proper name (Person)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)]

new and

Comment:

Actual: "**Lewin**"

P 1: Interview9.doc - 1:21 [her maiden name was leap shark..] (6:6) (Super)

Codes: [B3.1 Proper name (Person)] [B5 SPELLING (LETTER-BY-LETTER)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D3.7 Other semantic issue]

her maiden name was leap shark l i e b b a c h a r d

Comment:

Actual: "Her maiden name was **Liebschard, l i e b s c h a r d**"

* ASR recognizes letters as letters, not as individual words, but does not get all the letters right. There is also an extra letter in the ASR transcript.

P 1: Interview9.doc - 1:120 [leap shark] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [B3.1 Proper name (Person)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D3.7 Other semantic issue]

leap shark

Comment:

Actual: "**Liebschard**"

* Low probability of guessing exactly right because ASR did not get all letters correct in the letter-by-letter spelling. Might get an idea of what the name should be, esp. if user is familiar with the name in general.

* Semantic matching: theoretically, "leap shark" could be a name, but it's unlikely. ASR does not connect either the idea that a name is being given, or that the letters immediately following the name are intended to spell it.

P 1: Interview9.doc - 1:121 [l i e b b a c h a r d] (6:6) (Super)

Codes: [B5 SPELLING (LETTER-BY-LETTER)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D3.7 Other semantic issue]

l i e b b a c h a r d

Comment:

Actual: "**l i e b s c h a r d**"

* ASR recognizes letters as letters, not as individual words, but does not get all the letters right. There is also an extra letter in the ASR transcript.

* Low likelihood of guessing exactly correct in any context, because letters are transcribed incorrectly. Having the wrong spelling would have a high impact on searching/retrieval. However, it could be possible to get *close* to the name or pronunciation by seeing the letters and "leap shark" side by side.

P 1: Interview9.doc - 1:22 [my mother was a dress of perso..] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.1 Idiom] [D1.2 Logic of context (related meanings)] [D2.9 Other syntax issue] [D3.7 Other semantic issue]

my mother was a dress of person that going there

Comment:

Actual: "My mother was **a aggressive person, the go-getter**"

* In this case, the speaker makes a grammatical error ("a aggressive" instead of "an aggressive"), likely because she is not a native English-speaker. This may throw the ASR off.

* Semantic matching: If ASR recognized "aggressive," it might get related meaning of "go-getter."

P 1: Interview9.doc - 1:122 [a dress of] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue] [D3.7 Other semantic issue]

a dress of

Comment:

Actual: "**aggressive**"

P 1: Interview9.doc - 1:123 [that] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B7 UNCLEAR CAUSE] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)]

that

Comment:

Actual: "**the**"

P 1: Interview9.doc - 1:124 [going there] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.1 Idiom] [D1.2 Logic of context (related meanings)] [D2.9 Other syntax issue]

going there

Comment:

Actual: "**go-getter**"

P 1: Interview9.doc - 1:23 [were] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B7 UNCLEAR CAUSE] [C1.2 Comprehension (Medium)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D1.2 Logic of context (related meanings)]

were

Comment:

Actual: "**worked**"

* syntactic matching: "were" would normally be followed by an adjective, not an adverb, so either the verb or the adverb is wrong.

* semantic matching: although the verb is awkward, because it's so general it's not really mismatched with the rest of the sentence. The best way to get the correct verb is to look at the overall context/meaning of the sentence -- it's talking about their business (i.e., their work).

P 1: Interview9.doc - 1:24 [out aware] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D1.1 Idiom] [D2.9 Other syntax issue]

out aware

Comment:

Actual: "**outerware**"

P 1: Interview9.doc - 1:126 [out aware business harder mean..] (6:6) (Super)

Codes: [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D1.3 Logic of structure (repeated words)] [D2.9 Other syntax issue]

out aware business harder means gold chains jackets and so on

Comment:

Actual: "**outerware** business, **outerware** means **coats, suits**, jackets and so on"

* The mistakes in the sentence build on each other.

P 1: Interview9.doc - 1:125 [harder] (6:6) (Super)

Codes: [A1.1 One word for two (or more)] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.3 Logic of structure (repeated words)] [D2.8 Wrong part of speech] [D3.2 Verb with subject]

harder

Comment:

Actual: "**outerware**"

P 1: Interview9.doc - 1:25 [gold chains] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B4 MISDIRECTED ASR LOGIC] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)]

gold chains

Comment:

Actual: "**coats, suits**"

* Here, probability works against the ASR. By misreading "coats" as "gold," it then guesses "chains" is a likely word to follow, further distorting the meaning of the phrase. Also, by incorrectly identifying a common phrase, it lessens the likelihood that someone would recognize the error.

P 1: Interview9.doc - 1:26 [on a] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.8 Extraneous sound] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.7 Extra word]

on a

Comment:

Actual: "[um]"

P 1: Interview9.doc - 1:27 [and a kitchen] (6:6) (Super)

Codes: [A1.3 Misidentified word boundaries] [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.3 Comprehension (Low)] [C3.1.2 No Context (Medium)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D2.9 Other syntax issue]

and a kitchen

Comment:

Actual: "in the kitchen"

P 1: Interview9.doc - 1:28 [was a store wouldn t burning s..] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [A4 OTHER ERROR] [B2.1 Accent of speaker] [B2.5 Speaker self-interruption] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.03 Probability (Low)] [D2.9 Other syntax issue]

was a store wouldn t burning store

Comment:

Actual: "was a **sto- a wooden-burning stove**"

P 1: Interview9.doc - 1:127 [store] (6:6) (Super)

Codes: [B2.5 Speaker self-interruption] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D3.7 Other semantic issue]

store

Comment:

Actual: "**sto-**" (beginning to say stove, then interrupts herself)

* seems unlikely that ASR could recognize an interrupted/cut-off word

P 1: Interview9.doc - 1:128 [wouldn t burning] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.8 Wrong part of speech]

wouldn t burning

Comment:

Actual: "**wooden-burning**"

* likelihood of inferring the right word (wooden) would be very high if the ASR correctly identified "stove." Because it doesn't, there is less of a logical explanation.

* Syntax: Here, the speaker makes a slight grammatical error -- normally the fuel would be a noun, not an adjective (i.e., "wood-burning," not "wooden-burning")

P 1: Interview9.doc - 1:129 [store] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B4 MISDIRECTED ASR LOGIC] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context

(Medium)] [D3.1 Adjective with noun]

store

Comment:

Actual: **"stove"**

P 1: Interview9.doc - 1:29 [one kirk into to perform all t..] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.9 Other syntax issue] [D3.2 Verb with subject] [D3.3 Verb with object]

one kirk into to perform all the other injuries

Comment:

Actual: "one **cook and two** to perform all the other **duties**"

* Again, one of these errors in isolation would not cause much problem for understanding the phrase. In succession, however, they build on each other and make the meaning incomprehensible.

P 1: Interview9.doc - 1:130 [kirk] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.2 Comprehension (Medium)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.2 Global Context (Medium)] [D3.2 Verb with subject]

kirk

Comment:

Actual: **"cook"**

P 1: Interview9.doc - 1:131 [into] (6:6) (Super)

Codes: [A1.1 One word for two (or more)] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D2.8 Wrong part of speech]

into

Comment:

Actual: **"and two"**

P 1: Interview9.doc - 1:132 [injuries] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D3.3 Verb with object]

injuries

Comment:

Actual: **"duties"**

P 1: Interview9.doc - 1:30 [the war i had to be brought a ..] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [A4 OTHER ERROR] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.8 Wrong part of speech]

the war i had to be brought a and that would had to be chopped

Comment:

Actual: "the **water** had to be brought **in, the wood** had to be chopped"

P 1: Interview9.doc - 1:133 [war i] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue] [D3.2 Verb with subject]

war i

Comment:

Actual: "**water**"

* could have greater-than-usual impact on retrieval because of the importance of war in the testimonies.

P 1: Interview9.doc - 1:134 [a and] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [B7 UNCLEAR CAUSE] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.8 Wrong part of speech]

a and

Comment:

Actual: "**in**"

P 1: Interview9.doc - 1:135 [that would] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.8 Wrong part of speech] [D3.2 Verb with subject]

that would

Comment:

Actual: "**the wood**"

P 1: Interview9.doc - 1:31 [in january] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.6 Missing object]

in january

Comment:

Actual: "**ingenuity**"

v. hard to decipher meaning by reading transcript

P 1: Interview9.doc - 1:32 [uh bringing] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.2 Comprehension (Medium)] [C3.1.2 No Context (Medium)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D2.9 Other syntax issue]

uh bringing

Comment:

Actual: **"upbringing"**

* This is another example of a slight difference in the speaker's pronunciation leading to an error. The word "upbringing" is not at all hard to understand in the audio, but she pronounces it almost "u-pbringing," which seems to be just enough for the ASR to misread it.

P 1: Interview9.doc - 1:33 [me cars] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.6 Emphasis on syllable or word] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue]

me cars

Comment:

Actual: **"because"**

P 1: Interview9.doc - 1:136 [are you] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue]

are you

Comment:

Actual: **"I"**

P 1: Interview9.doc - 1:34 [are you was part] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.7 Long pause] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue] [D3.2 Verb with subject]

are you was part

Comment:

Actual: **"I was taught"**

* In audio, long pause between "I" and "was." The "I" is drawn out for a moment, then cut off, followed by a pause, then the word "was." The strong "w" at the beginning of "was," coming after the pause, seems to be enough for the ASR to read it as 2 words. Also, because the "I" is drawn out, the ASR picks it up as "are." This sometimes happens with "uh" as well.

The ASR also seems to be thrown by very slight differences in pronunciation, such as the difference between the "au" and "ar" (or "ah") sounds. Therefore, "because" ("be-cahs") becomes "me cars", and "taught" ("taht") becomes "part."

P 1: Interview9.doc - 1:137 [part] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D3.2 Verb with subject]

part

Comment:

Actual: **"taught"**

P 1: Interview9.doc - 1:139 [everything there was to be dow..] (6:6) (Super)

Codes: [B2.1 Accent of speaker] [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.8 Wrong part of speech]

everything there was to be down and house call

Comment:

Actual: "everything there was to be **done in a household**"

P 1: Interview9.doc - 1:138 [down] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D1.2 Logic of context (related meanings)] [D3.2 Verb with subject]

down

Comment:

Actual: **"done"**

P 1: Interview9.doc - 1:35 [and] (6:6) (Super)

Codes: [A1.1 One word for two (or more)] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D2.8 Wrong part of speech] [D3.4 Preposition with object]

and

Comment:

Actual: **"in a"**

P 1: Interview9.doc - 1:140 [house call] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.2 Global Context (Medium)] [D1.2 Logic of context (related meanings)] [D3.7 Other semantic issue]

house call

Comment:

Actual: **"household"**

P 1: Interview9.doc - 1:141 [or help] (6:6) (Super)

Codes: [A1.1 One word for two (or more)] [B2.1 Accent of speaker] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.8 Wrong part of speech]

or help

Comment:

Actual: **"all the help"**

P 1: Interview9.doc - 1:142 [was my] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.3 Comprehension (Low)] [C3.1.2 No Context (Medium)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D2.8 Wrong part of speech]

was my

Comment:

Actual: **"with my"**

P 1: Interview9.doc - 1:143 [little and] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.1 Global Context (High)] [D2.6 Missing object]

little and

Comment:

Actual: "little **hand**"

P 1: Interview9.doc - 1:37 [they] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D1.1 Idiom]

they

Comment:

Actual: **"that"**

P 1: Interview9.doc - 1:38 [and] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D3.7 Other semantic issue]

and

Comment:

Actual: **"until"**

P 1: Interview9.doc - 1:144 [and uh] (6:6) (Super)

Codes: [A1.3 Misidentified word boundaries] [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D2.9 Other syntax issue]

and uh

Comment:

Actual: **"on the"**

P 1: Interview9.doc - 1:39 [and uh scrabble or] (6:6) (Super)

Codes: [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.9

Other syntax issue]

and uh scrabble or

Comment:

Actual: "**on the scrub board**"

P 1: Interview9.doc - 1:145 [scrabble or] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.1 Accent of speaker] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.9 Other syntax issue]

scrabble or

Comment:

Actual: "**scrub board**"

P 1: Interview9.doc - 1:40 [the stuff] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.2 Comprehension (Medium)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D3.3 Verb with object]

the stuff

Comment:

Actual: "the **stove**"

P 1: Interview9.doc - 1:41 [is] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.1 Accent of speaker] [C3.1.2 No Context (Medium)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D2.8 Wrong part of speech]

is

Comment:

Actual: "**with**"

P 1: Interview9.doc - 1:296 [my little friends] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.2 Global Context (Medium)] [D3.7 Other semantic issue]

my little friends

Comment:

Actual: "my little **hands**"

* cause is unclear -- could be a case of misdirected ASR logic because "little friends" is more common a phrase than "little hands"

P 1: Interview9.doc - 1:42 [know and] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [B2.4 Pace (Slow)] [B2.6 Emphasis on syllable or word] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)]

know and

Comment:

Actual: **"learn"**

* "learn" strongly enunciated and drawn out in audio

* no inherent syntactical or semantic problem (i.e., someone could say "I was made to know and I was taught how to bake bread ..." even if it's somewhat awkward)

P 1: Interview9.doc - 1:148 [i was part hard to bake bread ..] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.1 Accent of speaker] [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.8 Wrong part of speech] [D3.7 Other semantic issue]

i was part hard to bake bread was seized

Comment:

Actual: "I was **taught how** to bake bread"

P 1: Interview9.doc - 1:146 [part] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.8 Wrong part of speech] [D3.2 Verb with subject]

part

Comment:

Actual: **"taught"**

* 2nd instance of interpreting "taught" as "part"

P 1: Interview9.doc - 1:147 [hard to] (6:6) (Super)

Codes: [A1.3 Misidentified word boundaries] [B2.1 Accent of speaker] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.8 Wrong part of speech] [D3.7 Other semantic issue]

hard to

Comment:

Actual: **"how to"**

P 1: Interview9.doc - 1:143 [was seized] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.8 Wrong part of speech] [D3.3 Verb with object]

was seized

Comment:

Actual: **"with yeast"**

P 1: Interview9.doc - 1:149 [how long] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.1 Accent of speaker] [B2.3 Pace (Fast)] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)]

how long

Comment:

Actual: "how **to**"

P 1: Interview9.doc - 1:44 [how long meadow for the strugg..] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [A4 OTHER ERROR] [B1.1 Language (German)] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.8 Wrong part of speech] [D3.3 Verb with object]

how long meadow for the struggle

Comment:

Actual: "how **to make dough** for the **strudel**"

Multiple errors in phrase make it v. hard to understand when reading ASR transcript.

P 1: Interview9.doc - 1:150 [meadow] (6:6) (Super)

Codes: [A1.1 One word for two (or more)] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.8 Wrong part of speech] [D3.3 Verb with object]

meadow

Comment:

Actual: "**make dough**"

P 1: Interview9.doc - 1:151 [struggle] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B1.1 Language (German)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D3.3 Verb with object]

struggle

Comment:

Actual: "**strudel**"

* real word might be inferred if the preceding phrase was correct, but with so many errors, the meaning is lost.

P 1: Interview9.doc - 1:152 [how the] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.8 Wrong part of speech]

how the

Comment:

Actual: "how **to**"

* ASR seems to have trouble with "how to" -- poss. because the phrase, and esp. the "to," is spoken quickly

P 1: Interview9.doc - 1:45 [how the wash clean salt] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of

context (related meanings)] [D3.7 Other semantic issue]

how the wash clean salt

Comment:

Actual: "how **to** wash, clean, **sew**"

P 1: Interview9.doc - 1:153 [salt] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D1.2 Logic of context (related meanings)] [D3.7 Other semantic issue]

salt

Comment:

Actual: "**sew**"

P 1: Interview9.doc - 1:46 [darren] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D1.2 Logic of context (related meanings)] [D2.8 Wrong part of speech] [D3.7 Other semantic issue]

darren

Comment:

Actual: "**darn**"

P 1: Interview9.doc - 1:154 [darren all this socks had to b..] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C3.1.2 No Context (Medium)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D1.2 Logic of context (related meanings)] [D1.3 Logic of structure (repeated words)] [D2.9 Other syntax issue]

darren all this socks had to be done

Comment:

Actual: "**darn** -- all **the** socks had to be **darned**"

P 1: Interview9.doc - 1:155 [this socks] (6:6) (Super)

Codes: [A1.3 Misidentified word boundaries] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.9 Other syntax issue]

this socks

Comment:

Actual: "**the** socks"

P 1: Interview9.doc - 1:156 [done] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.1 Accent of speaker] [B4 MISDIRECTED ASR LOGIC] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.3 Logic of structure (repeated words)]

done

Comment:

Actual: **"darned"**

* Semantically and syntactically, the phrase "all the socks had to be done" makes sense in this context. Primarily for that reason, it seems unlikely that someone would guess the actual word (they have a viable alternative).

* Misdirected ASR logic -- the phrase "to be done" is much more common than "to be darned." The ASR was even less likely to get the correct word because it did not get "darn" right the first time. There does not seem to be a problem with either syntactic or semantic matching, but rather the ability to recognize the repetition of words would be helpful here.

P 1: Interview9.doc - 1:48 [die] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.2 Global Context (Medium)] [D3.2 Verb with subject]

die

Comment:

Actual: **"darn"**

* It seems unlikely that someone would guess the correct word because "dye" is also something that could be done to a tablecloth. That seems a more likely guess, although in the broader context of darning, and particularly for someone familiar with the process, it might be guessed.

P 1: Interview9.doc - 1:297 [i] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.8 Wrong part of speech]

i

Comment:

Actual: **"a"**

P 1: Interview9.doc - 1:49 [table are] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.2 Global Context (Medium)] [D2.9 Other syntax issue] [D3.1 Adjective with noun]

table are

Comment:

Actual: "table **cloth**"

P 1: Interview9.doc - 1:50 [there] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)]

there

Comment:

Actual: **"that"**

P 1: Interview9.doc - 1:157 [at the] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.3 Pace (Fast)] [B4 MISDIRECTED ASR LOGIC] [C1.2 Comprehension

(Medium)] [C3.1.3 No Context (Low)] [D2.8 Wrong part of speech]

at the

Comment:

Actual: **"it's a"**

* Misdirected ASR logic -- "at the table" a common phrase, and system didn't recognize "tablecloth"

P 1: Interview9.doc - 1:51 [table was] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D1.3 Logic of structure (repeated words)] [D2.8 Wrong part of speech]

table was

Comment:

Actual: "table **cloth**"

P 1: Interview9.doc - 1:52 [shining and doll] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D1.2 Logic of context (related meanings)] [D2.8 Wrong part of speech] [D3.1 Adjective with noun]

shining and doll

Comment:

Actual: "**shiny** and **dull**"

P 1: Interview9.doc - 1:53 [me a] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.4 Pace (Slow)] [B2.5 Speaker self-interruption] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue]

me a

Comment:

Actual: "**a uh**"

* speaker interrupts herself here -- "I had to make a, uh, cover up a hole ..."

P 1: Interview9.doc - 1:54 [hall] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D1.2 Logic of context (related meanings)] [D3.3 Verb with object]

hall

Comment:

Actual: "**hole**"

P 1: Interview9.doc - 1:55 [part of the family] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [B4 MISDIRECTED ASR LOGIC] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)]

part of the family

Comment:

Actual: "part of the **fabric**"

* "part of the family" -- common phrase -- perhaps ASR "guessed" it was most likely word

P 1: Interview9.doc - 1:56 [there] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.1 Accent of speaker] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)]

there

Comment:

Actual: "**that**"

* unsure of semantic or syntactic matching -- with the error, it's still not "wrong," it's just the wrong word

P 1: Interview9.doc - 1:160 [quite and parked] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.1 Idiom] [D2.9 Other syntax issue]

quite and parked

Comment:

Actual: "quite **an art**"

P 1: Interview9.doc - 1:158 [and] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D2.8 Wrong part of speech]

and

Comment:

Actual: "**an**"

P 1: Interview9.doc - 1:159 [parked] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.8 Wrong part of speech]

parked

Comment:

Actual: "**art**"

P 1: Interview9.doc - 1:58 [i i he] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [B2.4 Pace (Slow)] [B2.6 Emphasis on syllable or word] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D2.9 Other syntax issue] [D3.2 Verb with subject]

i i he

Comment:

Actual: "**I**" [long/stretched out]

P 1: Interview9.doc - 1:59 [it doesn't proper] (6:6) (Super)

Codes: [A1.3 Misidentified word boundaries] [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.3 Comprehension (Low)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D3.7 Other semantic issue]

it doesn't proper

Comment:

Actual: "it **isn't** proper"

* Easy to decipher in context, although reader might guess "wasn't" instead of "isn't" -- same basic meaning.

P 1: Interview9.doc - 1:60 [it played] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.2 Pace (Change in Speed)] [B2.8 Extraneous sound] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.2 Verb form]

it played

Comment:

Actual: "**[uh] play**"

* ASR system makes a word out of an extraneous sound.

P 1: Interview9.doc - 1:61 [are] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [B2.8 Extraneous sound] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)]

are

Comment:

Actual: "**uhhh**"

P 1: Interview9.doc - 1:62 [as] (6:6) (Super)

Codes: [A1.1 One word for two (or more)] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.3 Missing subject] [D2.4 Missing verb]

as

Comment:

Actual: "**I was**"

P 1: Interview9.doc - 1:63 [by germans] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [D1.2 Logic of context (related meanings)] [D2.9 Other syntax issue] [D3.2 Verb with subject]

by germans

Comment:

Actual: "**vitamins**"

* Hard to understand by reading ASR transcript.

* Given subject of database (WWII/Holocaust), this error could be quite misleading in searching.

P 1: Interview9.doc - 1:161 [and all that] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [B2.1 Accent of speaker] [B2.3 Pace (Fast)] [B4 MISDIRECTED ASR LOGIC] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue]

and all that

Comment:

Actual: **"in order"**

P 1: Interview9.doc - 1:64 [and all that too] (6:6) (Super)

Codes: [B2.1 Accent of speaker] [B2.2 Pace (Change in Speed)] [B4 MISDIRECTED ASR LOGIC] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.1 Idiom] [D2.9 Other syntax issue]

and all that too

Comment:

Actual: **"in order to"**

* ASR's guess makes up a logical phrase, but not the right one.

P 1: Interview9.doc - 1:162 [too] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.8 Wrong part of speech]

too

Comment:

Actual: **"to"**

P 1: Interview9.doc - 1:163 [that] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D2.8 Wrong part of speech] [D3.3 Verb with object]

that

Comment:

Actual: **"get"**

P 1: Interview9.doc - 1:65 [that the i ran to my sister] (6:6) (Super)

Codes: [A1.3 Misidentified word boundaries] [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.9 Other syntax issue]

that the i ran to my sister

Comment:

Actual: **"get the iron into my system"**

* Misdirected logic: "I ran to my sister"

* At times, ASR seems almost to give up and start over. If something stops making sense, the system seems to start again with the next phrase.

P 1: Interview9.doc - 1:164 [i ran] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D1.2 Logic of context (related meanings)] [D2.8 Wrong part of speech]

i ran

Comment:

Actual: **"iron"**

P 1: Interview9.doc - 1:165 [to] (6:6) (Super)

Codes: [A1.3 Misidentified word boundaries] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)]

to

Comment:

Actual: **"into"**

* ASR either drops the "in" or connects it from "n" in "ran"

P 1: Interview9.doc - 1:166 [sister] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D3.7 Other semantic issue]

sister

Comment:

Actual: **"system"**

P 1: Interview9.doc - 1:167 [a jews from vegetables from be..] (6:6) (Super)

Codes: [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.9 Other syntax issue] [D3.7 Other semantic issue]

a jews from vegetables from beating carrots and tracks

Comment:

Actual: "a **juice** from vegetables, from **beets and** carrots and **turnips"**

P 1: Interview9.doc - 1:167 [jews] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D1.2 Logic of context (related meanings)] [D2.9 Other syntax issue] [D3.7 Other semantic issue]

jews

Comment:

Actual: **"juice"**

P 1: Interview9.doc - 1:168 [beating] (6:6) (Super)

Codes: [A1.1 One word for two (or more)] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C2.2

Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.2 Global Context (Medium)] [D1.2 Logic of context (related meanings)]

beating

Comment:

Actual: "**beets and**"

P 1: Interview9.doc - 1:169 [tracks] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D3.7 Other semantic issue]

tracks

Comment:

Actual: "**turnips**"

P 1: Interview9.doc - 1:68 [me] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D2.8 Wrong part of speech] [D3.7 Other semantic issue]

me

Comment:

Actual: "**made**"

P 1: Interview9.doc - 1:69 [bring in] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D3.3 Verb with object]

bring in

Comment:

Actual: "**drink an**"

P 1: Interview9.doc - 1:70 [eight on trucks] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.4 Pace (Slow)] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.9 Other syntax issue] [D3.3 Verb with object]

eight on trucks

Comment:

Actual: "eight-**ounce glass**"

Unclear error cause -- pronunciation in audio seems very clear; each word is enunciated.

P 1: Interview9.doc - 1:71 [everything or a] (6:6) (Super)

Codes: [A1.3 Misidentified word boundaries] [B2.1 Accent of speaker] [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue]

everything or a

Comment:

Actual: "**every single day**"

P 1: Interview9.doc - 1:72 [better off] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.1 Accent of speaker] [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.7 Extra word] [D3.1 Adjective with noun]

better off

Comment:

Actual: "**raw**"

P 1: Interview9.doc - 1:170 [better off ground later] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.1 Accent of speaker] [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.9 Other syntax issue] [D3.1 Adjective with noun]

better off ground later

Comment:

Actual: "**raw ground liver**"

P 1: Interview9.doc - 1:73 [later] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.2 Pace (Change in Speed)] [B2.6 Emphasis on syllable or word] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.6 Missing object]

later

Comment:

Actual: "**liver**"

* first syllable is spoken quickly/less enunciated; second is drawn out

P 1: Interview9.doc - 1:74 [with them] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.1 Accent of speaker] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.8 Wrong part of speech]

with them

Comment:

Actual: "with **some**"

* Maybe ASR is picking up the "th" from the end of "with" to predict that the word is "them"

P 1: Interview9.doc - 1:75 [bright meat] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D2.4 Missing verb]

bright meat

Comment:

Actual: **"bribe me"**

P 1: Interview9.doc - 1:76 [or dollar] (6:6) (Super)

Codes: [A2 DROPPED WORD] [B2.3 Pace (Fast)] [B7 UNCLEAR CAUSE] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.1 Missing article]

or dollar

Comment:

Actual: "or **a** dollar"

P 1: Interview9.doc - 1:298 [and] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B7 UNCLEAR CAUSE] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue]

and

Comment:

Actual: **"a"**

P 1: Interview9.doc - 1:77 [littler] (6:6) (Super)

Codes: [A1.1 One word for two (or more)] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.8 Wrong part of speech]

littler

Comment:

Actual: **"little liver"**

P 1: Interview9.doc - 1:78 [there] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D3.7 Other semantic issue]

there

Comment:

Actual: **"that"**

P 1: Interview9.doc - 1:171 [what] (6:6) (Super)

Codes: [A1.1 One word for two (or more)] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.3 Missing subject]

what

Comment:

Actual: **"well it"**

P 1: Interview9.doc - 1:79 [what was really a doll that wa..] (6:6) (Super)

Codes: [A1.1 One word for two (or more)] [A4 OTHER ERROR] [B1.2 Language (Polish)] [B2.1 Accent of speaker] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.9 Other

syntax issue]

what was really a doll that was

Comment:

Actual: "**well, it wasn't** really a **dollar, it was**"

P 1: Interview9.doc - 1:172 [was] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D3.7 Other semantic issue]

was

Comment:

Actual: "**wasn't**"

* Especially in the context of other errors in the phrase, this would not be easy to guess, and it clearly affects comprehension because it has the opposite meaning to what was actually said.

P 1: Interview9.doc - 1:173 [doll] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D3.7 Other semantic issue]

doll

Comment:

Actual: "**dollar**"

P 1: Interview9.doc - 1:174 [that] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.2 No Context (Medium)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D1.3 Logic of structure (repeated words)]

that

Comment:

Actual: "**it**"

* Not syntactically or semantically wrong, but "it" would be a better word choice in the context of the sentence. The structure of the sentence could provide cues that would point the ASR to the right word ("it wasn't really a dollar, it was a zloty" -- more likely that "... **that** was a zloty"). This assumes that the surrounding words are correct, which in the transcript they are not.

P 1: Interview9.doc - 1:80 [a lot of] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [B1.2 Language (Polish)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D1.2 Logic of context (related meanings)] [D2.8 Wrong part of speech]

a lot of

Comment:

Actual: "**zloty**"

P 1: Interview9.doc - 1:81 [by] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B7 UNCLEAR CAUSE] [C1.3 Comprehension (Low)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D1.2 Logic of context (related meanings)] [D2.4 Missing verb] [D2.8 Wrong part of speech] [D3.7 Other semantic issue]

by

Comment:

Actual: **"buy"**

* identical pronunciation, wrong spelling -- easy to understand in reading transcript

P 1: Interview9.doc - 1:175 [and to] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.2 Comprehension (Medium)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D2.8 Wrong part of speech]

and to

Comment:

Actual: **"into"**

P 1: Interview9.doc - 1:82 [and to my sister and] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [A3 EXTRA WORD] [B2.1 Accent of speaker] [B2.3 Pace (Fast)] [B2.7 Long pause] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D3.7 Other semantic issue]

and to my sister and

Comment:

Actual: **"into my system"**

* second misinterpretation of this phrase

P 1: Interview9.doc - 1:176 [sister] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D1.2 Logic of context (related meanings)] [D3.7 Other semantic issue]

sister

Comment:

Actual: **"system"**

* long pause after "system" in audio

P 1: Interview9.doc - 1:299 [and] (6:6) (Super)

Codes: [A3 EXTRA WORD] [B2.7 Long pause] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)]

and

Comment:

Actual: **[pause]**

*no real syntactic or semantic cues that this is an extra word.

P 1: Interview9.doc - 1:83 [teen] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.2 Pace (Change in Speed)] [B2.6 Emphasis on syllable or word] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D1.2 Logic of context (related meanings)]

teen

Comment:

Actual: **"routine"**

* change in speed/emphasis within word -- rou-TINE

P 1: Interview9.doc - 1:84 [are] (6:6) (Super)

Codes: [A3 EXTRA WORD] [B2.4 Pace (Slow)] [B2.8 Extraneous sound] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue]

are

Comment:

Actual: **"uh"**

P 1: Interview9.doc - 1:85 [couldn t do] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D1.2 Logic of context (related meanings)] [D3.3 Verb with object]

couldn t do

Comment:

Actual: **"could do"**

* Close in pronunciation, opposite meaning.

P 1: Interview9.doc - 1:86 [that please] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C3.02 Probability (Medium)] [C3.1.3 No Context (Low)] [C3.2.1 Local Context (High)] [C3.3.2 Global Context (Medium)] [D1.2 Logic of context (related meanings)] [D2.9 Other syntax issue]

that please

Comment:

Actual: **"I pleased"**

P 1: Interview9.doc - 1:87 [hear later] (6:6) (Super)

Codes: [A2 DROPPED WORD] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [D2.6 Missing object]

hear later

Comment:

Actual: "hear **it** later"

P 1: Interview9.doc - 1:300 [as] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [B4 MISDIRECTED ASR LOGIC] [C3.03 Probability (Low)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.2 Global Context (Medium)] [D2.8 Wrong part of speech]

as

P 1: Interview9.doc - 1:88 [as one and] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [B4 MISDIRECTED ASR LOGIC] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue]

as one and

Comment:

Actual: **"is when I'm"**

* possible misdirected logic: "as one" a common phrase

P 1: Interview9.doc - 1:301 [one] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [B4 MISDIRECTED ASR LOGIC] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.9 Other syntax issue]

one

Comment:

Actual: **"when"**

P 1: Interview9.doc - 1:302 [and] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.3 Pace (Fast)] [B4 MISDIRECTED ASR LOGIC] [C1.2 Comprehension (Medium)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.3 Missing subject] [D2.8 Wrong part of speech]

and

Comment:

Actual: **"I'm"**

P 1: Interview9.doc - 1:89 [sport] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D1.2 Logic of context (related meanings)] [D2.8 Wrong part of speech] [D3.1 Adjective with noun]

sport

Comment:

Actual: **"spoiled"**

* semantic matching: used "adjective with noun" code, but more an issue of adjective (if it was one) not matching subject. (e.g., "after being so sporty" would not make any more sense in this context)

P 1: Interview9.doc - 1:90 [add up] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global

Context (Medium)] [D1.2 Logic of context (related meanings)] [D3.2 Verb with subject]

add up

Comment:

Actual: **"adapt"**

P 1: Interview9.doc - 1:303 [necessity as a mother inventio..] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [A2 DROPPED WORD] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.1 No Context (High)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D1.1 Idiom] [D2.9 Other syntax issue]

necessity as a mother inventions

P 1: Interview9.doc - 1:91 [as] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.1.2 No Context (Medium)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D1.1 Idiom] [D2.8 Wrong part of speech]

as

Comment:

Actual: **"is"**

P 1: Interview9.doc - 1:177 [mother inventions] (6:6) (Super)

Codes: [A2 DROPPED WORD] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.1.1 No Context (High)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D1.1 Idiom] [D2.9 Other syntax issue]

mother inventions

Comment:

Actual: "mother **of** inventions"

P 1: Interview9.doc - 1:304 [and and the] (6:6) (Super)

Codes: [A3 EXTRA WORD] [A4 OTHER ERROR] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.3 Missing subject] [D2.4 Missing verb]

and and the

Comment:

Actual: **"you do"**

* unclear which words stand in for which. One of the "ands" is probably extraneous.

P 1: Interview9.doc - 1:92 [and and the helpers are well] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [A3 EXTRA WORD] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D1.2 Logic of context (related meanings)] [D2.9 Other syntax issue]

and and the helpers are well

Comment:

Actual: **"you do help yourself"**

* Unclear how ASR broke down the phrase

P 1: Interview9.doc - 1:305 [helpers] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.2 Local Context (Medium)] [C3.3.2 Global Context (Medium)] [D2.8 Wrong part of speech]

helpers

Comment:

Actual: **"help"**

P 1: Interview9.doc - 1:306 [are well] (6:6) (Super)

Codes: [A1.2 Two (or more) words for one] [B4 MISDIRECTED ASR LOGIC] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.3 Global Context (Low)] [D2.8 Wrong part of speech] [D3.3 Verb with object]

are well

Comment:

Actual: **"yourself"**

* misdirected logic: once ASR incorrectly transcribed the noun "helpers," rather than the verb "help," it was likely to look for a verb to follow it.

P 1: Interview9.doc - 1:93 [louanne] (6:6) (Super)

Codes: [A1.4 Similar-Sounding Words] [B3.1 Proper name (Person)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.1.3 No Context (Low)] [C3.2.1 Local Context (High)] [C3.3.1 Global Context (High)] [D1.4 Other Relationship]

louanne

Comment:

Actual: **"Lewin"**

* Correct word could be inferred because following spelling is correct for last name

* other relationship: should see relationship between name and spelling that follows

P 1: Interview9.doc - 1:94 [e i s i n g] (6:6) (Super)

Codes: [A4 OTHER ERROR] [B5 SPELLING (LETTER-BY-LETTER)] [C1.1 Comprehension (High)] [C3.1.3 No Context (Low)] [C3.2.3 Local Context (Low)] [C3.3.2 Global Context (Medium)] [D1.4 Other Relationship]

e i s i n g

Comment:

Actual: **"e i s i g"** (prn. "Isaac")

*other relationship: relationship between name and spelling

*correct spelling might be inferred by someone familiar with that spelling of the name

P 1: Interview9.doc - 1:95 [june the eighth] (6:6) (Super)

Codes: [A2 DROPPED WORD] [B6.1 Quiet/off-mic]

june the eighth

Comment:

Recording also includes year (1927).

P 1: Interview9.doc - 1:178 [when you] (9:9) (Super)

Codes: [A1.1 One word for two (or more)] [B2.3 Pace (Fast)] [B6.1 Quiet/off-mic] [C1.3 Comprehension (Low)] [C3.02 Probability (Medium)]

when you

Comment:

Actual: "**why don't** you"

P 1: Interview9.doc - 1:179 [talk about] (9:9) (Super)

Codes: [A2 DROPPED WORD] [B6.1 Quiet/off-mic] [C1.3 Comprehension (Low)]

talk about

Comment:

Actual: "talk **a little bit** about"

* words not picked up by ASR -- interviewer is off-mic

P 1: Interview9.doc - 1:180 [was like] (9:9) (Super)

Codes: [B6.1 Quiet/off-mic] [C1.3 Comprehension (Low)]

was like

Comment:

Actual: "was like **in that town**"

* interviewer off-mic -- missing words not picked up by ASR

P 1: Interview9.doc - 1:182 [after] (9:9) (Super)

Codes: [A1.1 One word for two (or more)] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)]

after

Comment:

Actual: "**you have to**"

P 1: Interview9.doc - 1:181 [after realized] (9:9) (Super)

Codes: [A1.1 One word for two (or more)] [B2.3 Pace (Fast)] [B4 MISDIRECTED ASR LOGIC] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)] [D1.2 Logic of context (related meanings)]

after realized

Comment:

Actual: "**you have to realize**"

* possible that after ASR misidentified "after," it became more likely that the word following would be past-tense

P 1: Interview9.doc - 1:183 [realized] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.02 Probability (Medium)]

realized

Comment:

Actual: "**realize**"

P 1: Interview9.doc - 1:184 [after works] (9:9) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [C1.3 Comprehension (Low)] [C3.01 Probability (High)]

after works

Comment:

Actual: "**afterwards**"

P 1: Interview9.doc - 1:185 [either] (9:9) (Super)

Codes: [A1.1 One word for two (or more)] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)]

either

Comment:

Actual: "**I did**"

P 1: Interview9.doc - 1:186 [i scared] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.02 Probability (Medium)] [D1.3 Logic of structure (repeated words)]

i scared

Comment:

Actual: "**ice skater**"

P 1: Interview9.doc - 1:187 [that] (9:9) (Super)

Codes: [B2.4 Pace (Slow)] [C1.3 Comprehension (Low)]

that

Comment:

Actual: "**uhhh**"

* ASR reads long pause as a word

P 1: Interview9.doc - 1:190 [there] (9:9) (Super)

Codes: [A2 DROPPED WORD] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.03 Probability (Low)]

there

Comment:

Actual: "There **were**"

* "were" is spoken quickly/quietly -- not picked up by ASR

P 1: Interview9.doc - 1:188 [there are things] (9:9) (Super)

Codes: [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.03 Probability (Low)]

there are things

Comment:

Actual: "there **were outings**"

P 1: Interview9.doc - 1:189 [are things] (9:9) (Super)

Codes: [A1.2 Two (or more) words for one] [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.03 Probability (Low)]

are things

Comment:

Actual: "**outings**"

P 1: Interview9.doc - 1:191 [are were] (9:9) (Super)

Codes: [A1.2 Two (or more) words for one] [B2.4 Pace (Slow)] [C1.3 Comprehension (Low)] [C3.03 Probability (Low)]

are were

Comment:

Actual: "**our**"

P 1: Interview9.doc - 1:192 [hanging on] (9:9) (Super)

Codes: [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.03 Probability (Low)]

hanging on

Comment:

Actual: "hanging **around**"

P 1: Interview9.doc - 1:194 [was] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.2 Comprehension (Medium)] [C3.02 Probability (Medium)]

was

Comment:

Actual: "**with**"

P 1: Interview9.doc - 1:193 [uh the] (9:9) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.4 Pace (Slow)] [C1.3 Comprehension (Low)] [C3.02 Probability (Medium)]

uh the

Comment:

Actual: "**other**"

P 1: Interview9.doc - 1:195 [any] (9:9) (Super)

Codes: [A1.1 One word for two (or more)] [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.03 Probability (Low)]

any

Comment:

Actual: "**and eat**"

P 1: Interview9.doc - 1:197 [any the the daily me all] (9:9) (Super)

Codes: [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)] [D1.2 Logic of context (related meanings)]

any the the daily me all

Comment:

Actual: "**and eat** the the daily **meal**"

* The errors in combination make the phrase incomprehensible. If only one of the errors had occurred, the phrase might be understandable/ a reader might be able to guess the meaning.

P 1: Interview9.doc - 1:196 [me all] (9:9) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)]

me all

Comment:

Actual: "**meal**"

P 1: Interview9.doc - 1:198 [they] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)]

they

Comment:

Actual: "**the**"

P 1: Interview9.doc - 1:199 [did and] (9:9) (Super)

Codes: [A1.2 Two (or more) words for one] [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)] [D1.2 Logic of context (related meanings)]

did and

Comment:

Actual: "**dinner**"

P 1: Interview9.doc - 1:201 [i m] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.03 Probability (Low)]

i m

Comment:

Actual: "**on**"

P 1: Interview9.doc - 1:200 [i m sorry day] (9:9) (Super)

Codes: [B2.1 Accent of speaker] [B2.2 Pace (Change in Speed)] [B4 MISDIRECTED ASR LOGIC] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)] [D1.2 Logic of context (related meanings)]

i m sorry day

Comment:

Actual: **"on Saturday"**

* Another case of the ASR's logic working against correct interpretation. "Sorry" is a likely word to follow "I'm," but "I'm" is the wrong word to begin with.

P 1: Interview9.doc - 1:202 [sorry day] (9:9) (Super)

Codes: [A1.2 Two (or more) words for one] [B2.1 Accent of speaker] [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)]

sorry day

Comment:

Actual: **"Saturday"**

P 1: Interview9.doc - 1:204 [learned] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)]

learned

Comment:

Actual: **"weren't"**

P 1: Interview9.doc - 1:203 [learned a lot of like the fire..] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C3.03 Probability (Low)]

learned a lot of like the fire

Comment:

Actual: **"weren't allowed to light the fire"**

P 1: Interview9.doc - 1:205 [a lot] (9:9) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.03 Probability (Low)]

a lot

Comment:

Actual: **"allowed"**

P 1: Interview9.doc - 1:206 [of] (9:9) (Super)

Codes: [B2.3 Pace (Fast)] [B4 MISDIRECTED ASR LOGIC] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)]

of

Comment:

Actual: **"to"**

* Another case of "misplaced logic" in the ASR transcription. Once it misread "allowed" as "a lot," "of" was the logical word to follow.

P 1: Interview9.doc - 1:207 [like] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B7 UNCLEAR CAUSE] [C1.1 Comprehension (High)] [C3.02 Probability (Medium)] [D1.2 Logic of context (related meanings)]

like

Comment:

Actual: **"light"**

P 1: Interview9.doc - 1:208 [s c h o l e a r l y a n d h e] (9:9) (Super)

Codes: [B2.2 Pace (Change in Speed)] [B5 SPELLING (LETTER-BY-LETTER)] [C1.1 Comprehension (High)] [C3.01 Probability (High)]

s c h o l e a r l y a n d h e

Comment:

Actual: **"c h o l e n t"**

* ASR initially recognizes that a word is being spelled letter-by-letter. Halfway through, when the speaker says "l-e" close together, ASR interprets the word "early" and then switches to substituting whole words for the remaining letters. Not sure where the "s" comes from at the beginning of the word, unless the long "s" sound when the speaker says the letter "c."

A reader might guess the correct spelling because "cholent" is correct earlier in the sentence, and it's clear initially that it's transcribing letters.

P 1: Interview9.doc - 1:209 [well we is] (9:9) (Super)

Codes: [B2.3 Pace (Fast)] [B7 UNCLEAR CAUSE] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)]

well we is

Comment:

Actual: **"what it means"**

P 1: Interview9.doc - 1:210 [as] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.01 Probability (High)]

as

Comment:

Actual: **"is"**

P 1: Interview9.doc - 1:211 [that] (9:9) (Super)

Codes: [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.01 Probability (High)]

that

Comment:

Actual: **"that's"**

P 1: Interview9.doc - 1:212 [and the] (9:9) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)]

and the

Comment:

Actual: **"into"**

P 1: Interview9.doc - 1:213 [on on] (9:9) (Super)

Codes: [A1.2 Two (or more) words for one] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.02 Probability (Medium)] [D1.2 Logic of context (related meanings)]

on on

Comment:

Actual: **"oven"**

P 1: Interview9.doc - 1:214 [cox] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.02 Probability (Medium)]

cox

Comment:

Actual: **"cooks"**

P 1: Interview9.doc - 1:215 [bees] (9:9) (Super)

Codes: [B2.5 Speaker self-interruption] [C1.3 Comprehension (Low)] [C3.03 Probability (Low)]

bees

Comment:

Actual: **"be s-"**

P 1: Interview9.doc - 1:218 [that part of the hard part] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C3.03 Probability (Low)] [D1.2 Logic of context (related meanings)] [D1.3 Logic of structure (repeated words)]

that part of the hard part

Comment:

Actual: "that **pot**, the **hot pot**"

P 1: Interview9.doc - 1:216 [part of] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.4 Pace (Slow)] [B4 MISDIRECTED ASR LOGIC] [C3.02 Probability (Medium)]

part of

Comment:

Actual: **"pot"**

* "of" in transcript is extraneous -- possibly inserted due to pause in speech and probability that "part" would be followed by "of"

P 1: Interview9.doc - 1:217 [hard part] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.03 Probability (Low)]

hard part

Comment:

Actual: **"hot pot"**

P 1: Interview9.doc - 1:220 [my] (9:9) (Super)

Codes: [A1.1 One word for two (or more)] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)]

my

Comment:

Actual: **"and I"**

P 1: Interview9.doc - 1:219 [my brother] (9:9) (Super)

Codes: [B2.3 Pace (Fast)] [B4 MISDIRECTED ASR LOGIC] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.03 Probability (Low)] [D1.2 Logic of context (related meanings)]

my brother

Comment:

Actual: **"and I brought it"**

* Another case of ASR "misplaced logic" -- "my brother" a logical phrase, but "my" is wrong

P 1: Interview9.doc - 1:221 [brother] (9:9) (Super)

Codes: [A1.1 One word for two (or more)] [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.03 Probability (Low)]

brother

Comment:

Actual: **"brought it"**

P 1: Interview9.doc - 1:222 [you really] (9:9) (Super)

Codes: [A1.2 Two (or more) words for one] [B2.6 Emphasis on syllable or word] [B7 UNCLEAR CAUSE] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)]

you really

Comment:

Actual: **"usually"**

* poss. reason -- strong emphasis on first syllable?

P 1: Interview9.doc - 1:225 [on] (9:9) (Super)

Codes: [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.02 Probability (Medium)]

on

Comment:

Actual: **"and"**

P 1: Interview9.doc - 1:226 [on the edge of] (9:9) (Super)

Codes: [A1.2 Two (or more) words for one] [B2.3 Pace (Fast)] [B4 MISDIRECTED ASR LOGIC] [C1.1 Comprehension (High)] [D1.2 Logic of context (related meanings)]

on the edge of

Comment:

Actual: **"and vegetables"**

* ASR "misplaced logic" -- "on the edge of" a higher probability phrase

P 1: Interview9.doc - 1:224 [the edge of] (9:9) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)] [D1.2 Logic of context (related meanings)]

the edge of

Comment:

Actual: **"vegetables"**

P 1: Interview9.doc - 1:228 [it was] (9:9) (Super)

Codes: [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.03 Probability (Low)]

it was

Comment:

Actual: "it **isn't**"

P 1: Interview9.doc - 1:227 [two days] (9:9) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.3 Misidentified word boundaries] [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [C3.01 Probability (High)] [D1.2 Logic of context (related meanings)]

two days

Comment:

Actual: **"today"**

* plural in "days" may be picking up initial sound of next word, "certain"

P 1: Interview9.doc - 1:229 [one part me house] (9:9) (Super)

Codes: [B2.1 Accent of speaker] [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C3.03 Probability (Low)] [D1.2 Logic of context (related meanings)]

one part me house

Comment:

Actual: "one-**pot meals**"

P 1: Interview9.doc - 1:230 [part] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.4 Pace (Slow)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)]

part

Comment:

Actual: "**pot**"

P 1: Interview9.doc - 1:231 [me house] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)]

me house

Comment:

Actual: "**meals**"

P 1: Interview9.doc - 1:233 [where there] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [C1.3 Comprehension (Low)] [C3.03 Probability (Low)]

where there

Comment:

Actual: "**were the**"

P 1: Interview9.doc - 1:232 [where there was a] (9:9) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.5 Speaker self-interruption] [C1.3 Comprehension (Low)]

where there was a

Comment:

Actual: "**were the -- was the**"

P 1: Interview9.doc - 1:234 [a] (9:9) (Super)

Codes: [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)]

a

Comment:

Actual: "**the**"

P 1: Interview9.doc - 1:236 [laurin] (9:9) (Super)

Codes: [A1.1 One word for two (or more)] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.03 Probability (Low)]

laurin

Comment:

Actual: **"lot of it"**

P 1: Interview9.doc - 1:237 [wait] (9:9) (Super)

Codes: [A1.1 One word for two (or more)] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)]

wait

Comment:

Actual: **"we ate"**

P 1: Interview9.doc - 1:241 [two or three] (9:9) (Super)

Codes: [B7 UNCLEAR CAUSE] [C1.3 Comprehension (Low)]

two or three

Comment:

Actual: **"two three"** [no "or" in audio]

P 1: Interview9.doc - 1:238 [they] (9:9) (Super)

Codes: [A1.1 One word for two (or more)] [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)]

they

Comment:

Actual: **"a day"**

P 1: Interview9.doc - 1:239 [and] (9:9) (Super)

Codes: [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.02 Probability (Medium)]

and

P 1: Interview9.doc - 1:240 [various] (9:9) (Super)

No codes

various

Comment:

Actual: "in various shapes and forms"

Transcript drops "shapes and forms"

P 1: Interview9.doc - 1:242 [you] (12:12) (Super)

Codes: [B6.1 Quiet/off-mic]

you

Comment:

Actual: **"Jews"**

* interviewer question -- speaking off-mic

P 1: Interview9.doc - 1:244 [and] (12:12) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [C1.3 Comprehension (Low)] [C3.02 Probability (Medium)]

and

Comment:

Actual: "in"

P 1: Interview9.doc - 1:243 [and i were silly] (12:12) (Super)

Codes: [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C3.03 Probability (Low)]

and i were silly

Comment:

Actual: "in our city"

P 1: Interview9.doc - 1:245 [i were] (12:12) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)]

i were

Comment:

Actual: "our"

P 1: Interview9.doc - 1:246 [silly] (12:12) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)]

silly

Comment:

Actual: "city"

P 1: Interview9.doc - 1:247 [day war] (12:12) (Super)

Codes: [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)]

day war

Comment:

Actual: "there were"

*substitution of "war" for "were" likely to affect retrieval

P 1: Interview9.doc - 1:249 [lived day] (12:12) (Super)

Codes: [A1.3 Misidentified word boundaries] [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [C1.2 Comprehension (Medium)] [C3.01 Probability (High)]

lived day

Comment:

Actual: "lived a"

* phrase is pronounced slowly and "a" is strongly enunciated. ASR picks up "d" from end of "lived" to get "day."

P 1: Interview9.doc - 1:248 [lived day my life] (12:12) (Super)

Codes: [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.03 Probability (Low)] [D1.2 Logic of context (related meanings)]

lived day my life

Comment:

Actual: "lived **a modern** life"

P 1: Interview9.doc - 1:250 [my] (12:12) (Super)

Codes: [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.03 Probability (Low)]

my

Comment:

Actual: "**modern**"

P 1: Interview9.doc - 1:251 [there] (12:12) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.3 Comprehension (Low)] [C3.01 Probability (High)]

there

Comment:

Actual: "**that**"

P 1: Interview9.doc - 1:254 [the guard the molded the style..] (12:12) (Super)

Codes: [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [D1.2 Logic of context (related meanings)]

the guard the molded the style

Comment:

Actual: "the **garb** the **mode** the style"

P 1: Interview9.doc - 1:252 [guard] (12:12) (Super)

Codes: [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C3.02 Probability (Medium)]

guard

Comment:

Actual: "**garb**"

P 1: Interview9.doc - 1:253 [molded] (12:12) (Super)

Codes: [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C3.03 Probability (Low)]

molded

Comment:

Actual: "**mode**"

P 1: Interview9.doc - 1:255 [variance] (12:12) (Super)

Codes: [A1.1 One word for two (or more)] [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)]

variance

Comment:

Actual: "**study and**"

P 1: Interview9.doc - 1:257 [variance started] (12:12) (Super)

Codes: [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C3.03 Probability (Low)] [D1.2 Logic of context (related meanings)] [D1.3 Logic of structure (repeated words)]

variance started

Comment:

Actual: "**study and study**"

P 1: Interview9.doc - 1:256 [started] (12:12) (Super)

Codes: [B2.1 Accent of speaker] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)]

started

Comment:

Actual: "**study**"

P 1: Interview9.doc - 1:258 [two] (12:12) (Super)

Codes: [B7 UNCLEAR CAUSE] [C1.3 Comprehension (Low)] [C3.01 Probability (High)]

two

Comment:

Actual: "**too**"

P 1: Interview9.doc - 1:259 [armed] (12:12) (Super)

Codes: [B2.1 Accent of speaker] [B2.4 Pace (Slow)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)]

armed

Comment:

Actual: "**um**"

P 1: Interview9.doc - 1:260 [medgar la] (12:12) (Super)

Codes: [A1.2 Two (or more) words for one] [B2.4 Pace (Slow)] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)]

medgar la

Comment:

Actual: "**majority**"

P 1: Interview9.doc - 1:261 [are] (12:12) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.4 Pace (Slow)] [C1.3 Comprehension (Low)] [C3.03 Probability (Low)]

are

Comment:

Actual: **"uh"**

P 1: Interview9.doc - 1:262 [terrible] (12:12) (Super)

Codes: [A1.1 One word for two (or more)] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C2.2 Retrieval (Medium)] [C3.03 Probability (Low)]

terrible

Comment:

Actual: **"a rebel"**

P 1: Interview9.doc - 1:263 [or] (12:12) (Super)

No codes

or

Comment:

Actual: "school" [no "or"]

* pause after "school" in audio

P 1: Interview9.doc - 1:264 [i didn t know one of learning ..] (12:12) (Super)

Codes: [B2.1 Accent of speaker] [B2.2 Pace (Change in Speed)] [C1.1 Comprehension (High)] [C3.03 Probability (Low)] [D1.2 Logic of context (related meanings)]

i didn t know one of learning area or you know

Comment:

Actual: **"I did not want to learn Yiddish or Hebrew"**

P 1: Interview9.doc - 1:265 [didn t know] (12:12) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)]

didn t know

Comment:

Actual: **"did not"**

P 1: Interview9.doc - 1:266 [one of] (12:12) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.03 Probability (Low)]

one of

Comment:

Actual: **"want to" [wanna]**

P 1: Interview9.doc - 1:268 [learning area] (12:12) (Super)

Codes: [A1.3 Misidentified word boundaries] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)]

learning area

Comment:

Actual: "**learn Yiddish**"

P 1: Interview9.doc - 1:269 [you know] (12:12) (Super)

Codes: [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)]

you know

Comment:

Actual: "**Hebrew**"

P 1: Interview9.doc - 1:270 [hire] (12:12) (Super)

Codes: [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.01 Probability (High)]

hire

Comment:

Actual: "**hired a**"

P 1: Interview9.doc - 1:271 [languages the language] (12:12) (Super)

Codes: [A1.3 Misidentified word boundaries] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.02 Probability (Medium)]

languages the language

Comment:

Actual: "**language is a language**"

P 1: Interview9.doc - 1:272 [a] (12:12) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.01 Probability (High)]

a

Comment:

Actual: "**it**"

P 1: Interview9.doc - 1:273 [than] (12:12) (Super)

Codes: [B2.1 Accent of speaker] [C1.3 Comprehension (Low)] [C3.02 Probability (Medium)]

than

P 1: Interview9.doc - 1:275 [fight] (12:12) (Super)

Codes: [B2.4 Pace (Slow)] [C1.2 Comprehension (Medium)] [C2.2 Retrieval (Medium)] [C3.03 Probability (Low)]

fight

Comment:

Actual: "fact"

P 1: Interview9.doc - 1:276 [all] (12:12) (Super)

Codes: [B2.1 Accent of speaker] [C1.3 Comprehension (Low)] [C3.01 Probability (High)]

all

Comment:

Actual: "of"

P 1: Interview9.doc - 1:277 [they] (12:12) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [C1.2 Comprehension (Medium)] [C3.02 Probability (Medium)]

they

Comment:

Actual: "a"

P 1: Interview9.doc - 1:278 [are] (12:12) (Super)

Codes: [B2.1 Accent of speaker] [B2.4 Pace (Slow)] [C1.3 Comprehension (Low)] [C3.03 Probability (Low)]

are

Comment:

Actual: "uh"

P 1: Interview9.doc - 1:279 [days scold] (12:12) (Super)

Codes: [A1.3 Misidentified word boundaries] [B2.1 Accent of speaker] [B2.4 Pace (Slow)] [C1.1 Comprehension (High)] [C2.1 Retrieval (High)] [C3.03 Probability (Low)]

days scold

Comment:

Actual: "day school"

P 1: Interview9.doc - 1:281 [lined] (12:12) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.3 Pace (Fast)] [C1.1 Comprehension (High)] [C3.02 Probability (Medium)]

lined

Comment:

Actual: "learned"

P 1: Interview9.doc - 1:280 [lined up kind of] (12:12) (Super)

No codes

lined up kind of

Comment:

Actual: **"learned all kinds of"**

* ASR "misplaced logic" -- "lined" is wrong word, but is logically followed by "up"
"all kinds of" is also logical

P 1: Interview9.doc - 1:282 [up] (12:12) (Super)

Codes: [B2.1 Accent of speaker] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.02 Probability (Medium)]

up

Comment:

Actual: **"all"**

P 1: Interview9.doc - 1:283 [kind] (12:12) (Super)

Codes: [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)]

kind

Comment:

Actual: **"kinds"**

P 1: Interview9.doc - 1:284 [history is] (12:12) (Super)

Codes: [A1.2 Two (or more) words for one] [B2.1 Accent of speaker] [C1.3 Comprehension (Low)] [C3.02 Probability (Medium)]

history is

Comment:

Actual: **"histories"**

P 1: Interview9.doc - 1:285 [a] (12:12) (Super)

Codes: [B2.3 Pace (Fast)] [C1.3 Comprehension (Low)] [C3.01 Probability (High)]

a

Comment:

Actual: **"and"**

P 1: Interview9.doc - 1:286 [stars] (12:12) (Super)

Codes: [A1.4 Similar-Sounding Words] [B2.1 Accent of speaker] [B2.3 Pace (Fast)] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)]

stars

Comment:

Actual: **"stories"**

P 1: Interview9.doc - 1:287 [if this actually] (12:12) (Super)

Codes: [A1.2 Two (or more) words for one] [A1.4 Similar-Sounding Words] [B2.4 Pace (Slow)] [C1.2 Comprehension (Medium)] [C3.03 Probability (Low)]

if this actually

Comment:

Actual: **"exactly"**

