## Major Points Included in the Linguistic Features Video

Ready to get started? Let's start with assimilation. Remember, the two languages use different modalities. ASL and other signed languages use the visual sense in conjunction with the hands, face, and body to produce language in a three-dimensional space. A spoken language such as English uses the auditory sense to receive language produced with the vocal system, which includes the lips, tongue, and larynx. The mouth, in tandem with the nose and lungs, produces sounds which are carried through the air. Let's talk about how linguistic features can apply to both modalities.

The American Deaf community has a sign that means "Y-E-S". (Sean shows the sign for YES, the fist mimicking the nodding of a head in agreement. He signs it several times, showing different angles). However, if you wanted to show emphasis, there is a rule that applies to that as well. You can sign "Y-E-S" like this (Sean shows YES, starting with a Y shape close to his body, ending with an $S$ shape out in front. The motion is quick and sharp. He signs it several times, from different angles). Wait? Where did the letter "E" go? It seems as though the "E", sandwiched between the " Y " and the " S ", underwent the process of assimilation, forming a smooth, emphatic sign. You could not sign it like this "Y-E-S" (Wearing various bland expressions, Sean fingerspells "Y-E-S", using clear, distinct letters. He does this several times, from different angles). Oof, that's hard on the body, especially the wrists. It doesn't feel natural because it violated a rule of ASL phonology.
"YES! YES!" The "Y" and "S" assimilated the "E", forming one fluid sign. Similarly, spoken English undergoes assimilation, but we aren't looking at "yes" this time. Let's use the word "can". I'm sure you're wondering why I picked that word. Well, for the most part, the vowel sound $a$ isn't a nasal sound. When you bookend that " $a$ " with a " $c$ " and an " $n$ ", it takes on a specific meaning, a drink can, perhaps. However, when you speak the word "can", something strange happens. Your mouth makes the $c$ sound at the beginning of the word, and then the vowel $a$, but then your brain panics a little, because that final $n$ sound is really tripping your vocal apparatus up. In order to create a smooth phoneme, you exhale a bit, allowing the "a" and " n " to assimilate into a nasal sound. In reality, the sound $a$ isn't usually a nasal sound, but that's what assimilation does!

What about the process of adding a phoneme to a word or sign? That's called "epenthesis" and both modalities have examples of it. For example, back in the day, when the American Deaf community wanted to talk about a large circle of dough, covered in tomato sauce and cheese, maybe with some herbs, veggies or meat, slid into a large oven and baked, they signed "P-I-Z-ZA". Notice how the letters are signed slowly and distinctly. Over the course of many years, an actual sign began to take the place of the fingerspelling. Now, thanks to epenthesis, we sign "ZZ", or rather, two "Zs" produced simultaneously. Some people erroneously produce it with two separate "Zs", but the correct way is this (Sean signs "PIZZA", and instead of the bent index finger indicating the letter Z , both the index and middle finger are bent, effectively creating two "Zs" where there would have only been one). There are actually variations to this sign, but interestingly, epenthesis happens in the variations as well. I come from a large Deaf family and we sign it "PIZZA". Notice how the "P" and "I" are blending, and the "I" is held while my index
and middle finger again make double " Zs ". Regardless of the sign you use, they both still mean "P-I-Z-Z-A".

Okay, but what about English? I have an idea: let's use the word "idea"! If you were to look at the written word, there's an i, d, e, and a. Idea. But when you vocalize it, there's a little extra sound at the end: $i$-dee-uh. Notice the $u h$ sound- does the addition of that sound mean the spoken form has a different meaning from the written form? Absolutely not! Both mean you've had a thought that could be a possible course of action.

Another process is called "metathesis." Among the American Deaf community, there are some folks who sign the state "U-T-A-H" as "U-A-T-H" (Sean spells this several times, showing different angles). No matter which sign is used, the Deaf community knows it refers to the state of Utah. The meaning is preserved in both. Why is metathesis happening here? Is "U-A" an easier phoneme to produce? More research is needed to determine why this is happening.

Now the English example I'm about to give you is shocking to me. This whole time I've been under the assumption that all English-speaking hearing people said this word the same way. If you've ever been to a certain "healthy" fast food Mexican restaurant you know the word"chipotle." What I didn't realize is that most people aren't saying the final sound as -tle. Due to the process of metathesis, the phonemes are switched, resulting in the sound $-l t e$. The sound $-t l$ is not a common phoneme in spoken English, and it feels unnatural for most English speakers to say. However, when the phoneme is "switched," the resultant sound, $-l t$ is an acceptable sound in the English language. Even when the sound is flipped, English speakers understand that we are talking about the Mexican restaurant where delicious burritos are made to order.

The next process is reduction. In ASL 1 classes, students learn a lot of basic vocabulary, such as signs for animals. An example of reduction comes from this category- "D-O-G". When I teach ASL 1, I usually teach the sign "DOG" (Sean produces a sign that looks like a fingersnap). Most students essentially say great, that's the sign for DOG. There are always some though who want to know "Why? Why is that the sign? The sign CAT shows the cat's whiskers, but DOG is this weird snapping motion!" If you look carefully, you can see the process of reduction at work. What started out as "D-O-G" becomes the sign "DOG" due to reduction (Sean shows how the letters are signed faster and lose more of their movements, eventually becoming the sign DOG). You can see the "D" and the "G", while the "O" is technically there, but has been reduced to the point of being negligible. Of course it's there though. No one is going to see the sign "DOG" and write down "dg."

You know what's next. English has reduction too! One excellent example is the phrase "I do not know." Reduction has brought us one word, "Dunno." So much of the original phrase has been reduced that we are left with the verbal equivalent of the shoulder-shrug emoji. There's really not much left from the original phrase of "I do not know."

Now on to deletion. Did you know that in ASL there are signs that LOOK like fingerspelling but actually aren't but also they kind of look like signs? One example from this category is "BACK". "BACK". Now see how it starts. This first shape looks like it might be a "B" and as the sign ends we can see the "C" and the " $K$ ", but what happened to the "A"? It seems to have been deleted.

When we look at the sign being produced, we would all swear there's an "A" in there, but in all actuality, when we produce the sign, the deletion process ensures there isn't one.

In English the same process is at work in the word "gorilla" and in this case, it's the "O" that's treated as extraneous. English speakers produce the word closer to "G'rilla". ASL and English are not just different languages, they are different modalities, and yet the same linguistic principles that govern phonological processes are at play in both. This means that anyone learning ASL really needs to apply these processes when learning fingerspelling, so when they see an unexpected form, they can figure out what feature is causing it. Not only that, but it will help them to remember that the same processes are present in both English and ASL.

In the next part, I will talk in depth about the research that has been done on fingerspelling and these phonological processes. The changes that happen in fingerspelling due to these processes look a little bit different, and the resultant categories of phonemes have different names. I want to talk about what happens to fingerspelling and why.

