

## Major Points Included in the Morphs Video

Now, are you ready to really look at ASL “fingerspelling” and its phonological processes? Many people who learn ASL and “fingerspelling” have a hard time with receptive fingerspelling. It seems that most teachers teach it incorrectly because they think it is based on the 26 letters of the English alphabet, the same letters we use to write English. Students learn to read fingerspelling as individual letters, as if they were reading printed English (Sean spells several words with a bland facial expression and produces each fingerspelled letter clearly and individually- C-A-T; B-L-U-E; Y-E-L-L-O-W; D-A-N-I-E-L). This is very robotic and does not include naturally occurring changes in the way letters are actually produced.

Students learn fingerspelling the wrong way, which is why they have a hard time with it. They are trying to catch individual letters as if they’re reading, which leads to communicative misunderstandings. The way they have learned to process fingerspelling is based on the English alphabet, therefore when they are trying to “read” fingerspelling, they have the mindset that they are looking for single, clearly delineated letters. Interpreters and teachers who learned ASL in adulthood often feel that receptive fingerspelling is a serious challenge and may have to ask their conversational partner to repeat themselves, sometimes more than once.

On the other hand, people who grew up using ASL as their first language do not have this issue. They acquired the phonological rules of the language naturally and may not understand why the non-native signers have so much trouble with receptive fingerspelling. Now we see that we need to reframe the way we think about how signers use “fingerspelling.” We do this by recognizing that it has its own phonological rules, rather than thinking that it’s limited to the 26 letters of the English language. Hands are not a typewriter, producing perfect individual letters!

Unimorphs, synomorphs, bimorphs, trimorphs, and quadmorphs are the five phonological, morphological blends that give fingerspelling meaning. This shows that rather than ASL “fingerspelling” being limited to the 26 letters of the English language, there are many more- perhaps as many as four or five hundred. Currently there isn’t enough research on how many phonemes there really are in ASL fingerspelling- there may be too many to count. For now, we have identified only a few.

Now let’s talk more about what we mean when we talk about these processes. Unimorphs, for example, create a “fingerspelled” sign that looks different than what we expect it to look like. Rather than having phonemes of individual letters, it has become a blend. For example, the sign “E” heavily influences the other letter signs around it, creating many new phonemes. Take the name B-E-T-T-E. If I fingerspell it naturally, you can see what happens to the final “E.” Why has this happened? Of course! The “E” has formed a unimorph with the “T” preceding it. If we look at the sign A-P-P-L-E, we see the same phoneme in the final “E” because our brain knows we have signed “L” and by priming itself to sign “E”, it creates the “L/E” blend.

If we think back to our two groups, one group will innately understand these processes and know that this modified form is in fact an “E,” whereas the other will be baffled by this unexpected form! Misunderstandings abound, all because we don’t teach fingerspelling this way. Continuing our “E” theme, let’s look at “JUNE.” “JUNE.” What’s going on here? Now the final “E” has

formed an entirely new phoneme from the previous examples. In fact, if you watch closely, the “U” has also taken on a new form- rather than the expected form with the palm facing away from me, it’s now facing towards me. The hand then turns to form the “N” and again, the brain is priming itself for the “E,” creating a phoneme with the same two fingers used in the “N” resting on the thumb. “JUNE.” So smooth, thanks to the blends provided by unimorphs. It doesn’t look like an “E,” it doesn’t look like an “L,” it’s a new phoneme, and the many other phonemes of “fingerspelling” all have their own unique forms.

Now let’s talk about synomorphs. This term refers to a phonological process where easily distinguishable letters are visible simultaneously. Take the letters “M” and “I” and use them in the name Mimi. You can clearly see both the “M” and the “I” and they are both present in one phoneme. ‘MIMI.’ But enough about Mimi. Let’s take a small detour and talk about cars. Depending on how much you drive, every three or six months it’s time to change the oil. Wait. Did you see that? “OIL.” “OIL.” This isn’t about the “O” and the “I,” this is about the “I” and the “L” appearing simultaneously. Now, indulge me for a moment while we talk about colors. You’ve got blue, yellow, orange, red, and gold...what about silver? Doesn’t it have a color sign? It does, but some Deaf signers prefer to spell S-I-L-V-E-R. Right off the bat, the “S” and “I” are a synomorph. Those two signs often show up together as a phoneme.

Bimorphs, on the other hand, are phonemes that generally require movement. Using the name “CHRIS” as an example, we can see that many people will have a tough time with that one. The “C” might be the only part they can catch. But what’s actually happening is that as soon as we form the “C”, the hand is already in position for the “H” that follows, and indeed, as the hand turns to form it, the “C” is still there. This flows smoothly into the “RIS.” “Hi, my name is CHRIS.” Those of us who have grown up using ASL are confident that the person’s name is C-H-R-I-S, meanwhile interpreters are in disbelief that we understood! It all goes back to the way we teach fingerspelling. If we teach students using these phonemes, they will be better fingerspellers.

If you thought “CH” was all we were going to talk about, you’re wrong! What about days of the week, like “THURSDAY”? See that wiggling movement the “TH” combination uses? That seems like something. How about “SH” like in “WASH”? “Did you WASH?” See the forward motion? The “S” and “H” become a bit of a blur. Our poor non-native signers are lost again. Another one is “PH,” such as in “PHONE.” The “P” and “H” make a smooth semi-circular motion- “PHONE”. How about this one? “FUR”, that fuzzy coat on animals. You’d spell it F-U-R, but if you follow the rules of ASL “fingerspelling” you’ll see that the “U” turns around, with the palm facing inward rather than the standard outward-palm form. “FUR”. “COURT”. “FLOUR.” See what the “UR” phoneme looks like in all of these? These are all examples of bimorphs.

Our last two phonological processes are trimorphs and quadmorphs. There isn’t very much research on them specifically, but I can share some examples with you. One trimorph that everyone knows is “I Love You” which is really three signs- “ILY”- produced simultaneously. “ILY!!” Is that a sign or fingerspelling? Or both? What about quadmorphs? A good example is “HOOD,” as seen in the sign “DEAF+H-O-O-D”. It can absolutely be signed as “DEAF+INTUITION” but there are some who will say it’s “D-E-A-F-H-O-O-D.” There needs to

be more research on both trimorphs and quadmorphs. That aside, we can see that people learning ASL should heed the fact that the phonological processes of ASL are different than those of English. You may think you only need to remember the 26 letters, ABC all the way to Z, but that's not the case. ASL has its own unique phonemes that are completely separate from English phonemes.

Because ASL, or American Sign Language, has "America" in the name, it looks like the fingerspelling used all over the US represents the letters of written English...but consider Puerto Rico. Puerto Ricans also use ASL, but their fingerspelling represents Spanish words! This means that fingerspelling doesn't represent any one written language, isn't limited to just the English alphabet or any other alphabet for that matter. Fingerspelling is sign language. Bear in mind though, fingerspelling IS based on language contact in the user's everyday life. If we were to move to, I don't know, Canada, where all written communication was in French, our fingerspelling would change to reflect the spelling of French words, but it doesn't mean that it only represents French.

Now you're trying to make sense of everything. It's weird that ASL has all these rules. But it makes more sense when you consider that English has special rules too, rules related to vocal phonology- vocal phonology that really doesn't have much of a relationship to the written language. For spoken English, the written letters that represent phonemes are called "graphemes" and "digraphs" are graphemes made up of more than one letter. Some examples are *ng*, *ch*, *ck*, *rh*, *ph*, *sh*, and *qu*. If you were to speak these sounds, they don't seem to correlate to the sounds of the individual written letters. The digraphs are their own unique phoneme. As we have been discussing, ASL has its own phonological processes. For spoken English, the phonological processes are auditory, and the phonemic sounds don't correspond to the written phonemes, the graphemes. If a person were to try to match a sound to a grapheme, it'd be a bit of a guessing game!

In the same way, we may be tempted to try and divide the morphs into easily discernable letters, but we shouldn't! ASL has natural phonological processes that create new phonemes through the use of the five morphs we discussed previously. Recognizing this fact will help anyone improve their receptive fingerspelling skills. For those who plan to become interpreters, teachers, or linguists, practicing these morphemes will help you tremendously!

The next person who will be talking to you is Dr. Ashley Greene, and she will be showing you some different examples of the aforementioned morphs using vocabulary from STEM fields.