Production Norms and Purposes of Fingerspelling in ASL Discourse Craig Fogel

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Many new signers and interpreters become nervous when they are called upon to produce or comprehend fingerspelling in American Sign Language (ASL) discourse. The way it is usually taught in school to hearing second language learners, in a class separate from general sign instruction, may contribute to the feelings of trepidation among novices who view it as something more difficult to do or perceive than signing in general. When students of ASL become more adept at fingerspelling and start noticing how it is used in their interactions with Deaf people they begin to realize that it is very much a part of the language and that it is used for a variety of specific purposes.

Though the letters of the ASL alphabet are "a direct, letter-by-letter representation of English" they are unique signs (Cartwright and Bahleda, 2002, p. 2). Each letter is really a sign, or a morpheme with its own handshape, location, and palm orientation, like any other sign. While some are iconic (they look like the printed English letter), many morphemes in the ASL alphabet are arbitrary, as are many signs (Valli, Lucas, \& Mulrooney, 2005). When fingerspelling occurs in ASL discourse more attention is given to the flow or movement of the letters in relation to each other, and the signs that precede and follow than the individual letters themselves. This is much like the way hearing English speakers listen for meaning in full sentences and do not concentrate on decoding individual phonemes or even words without more context.

In order to discuss how fingerspelling is used in discourse in ASL, a visual-gestural language that has no written form, some English printed conventions will be utilized. Signs will be transcribed in gloss, or the common English word associated, with a sign notated in small capital letters (ex. SIGN). Fingerspelling will be notated by printing a word in small capital letters separated by hyphens (ex. N-O-V-E-L-T-Y). With these conventions in place, the
production norms and purposes of fingerspelling in ASL discourse can be examined and discussed.

To the casual observer, fingerspelling, when used in ASL discourse, clearly varies in how it is produced in terms of speed and clarity. Ross (2004) distinguishes three main categories of norms of production to classify how fingerspelling is produced before examining its purposes in discourse. In general, most fingerspelling occurs in what she calls the "fingerspelling space," or the area the dominant hand occupies in front of the dominant shoulder. The palm is usually oriented to face the audience or conversation partner, though not uncomfortably hyper-extended in its turnout. The citational or non-citational nature of production (whether or not the execution of fingerspelling adheres to these generalized characteristics of location, palm orientation, as well as speed and movement) correlates with assimilation that occurs naturally. The movement, orientation, location, and handshape of signs that directly precede and follow a fingerspelling may cause deviation from these standards of production.

Fingerspelling may morph slightly to allow ease of flow into and out of surrounding signs, but tends to appear in one of three fashions: "careful," "rapid," or "lexicalized" (Ross, 2004). Sometimes a fingerspelled word that is initially produced carefully may subsequently be produced more rapidly during the course of a conversational event. The style of individual signers may vary, but it is important to note that the difference between careful and rapid fingerspelling is not a distinction between articulate and sloppy production.

Fingerspelling that is careful can be easily recognized because every letter of the word is articulated with attention to clarity. The production of each letter matches the standard, or citational dictionary form and no letters are omitted or assimilated into one another. This type of fingerspelling tends to be located in the "fingerspelling space" and is produced slowly, but not
uncomfortably so. This type of fingerspelling looks like what most ASL students and interpreters learn in class drills and practice sessions. It most commonly occurs in discourse when names, abbreviations, acronyms, or lexical specifications are being introduced. This will be discussed in more detail later. Once a careful fingerspelling has been produced in discourse, it may be spelled more rapidly for the remainder of the event (Ross, 2004).

When fingerspelling is rapid, individual letters are not crisply articulated usually because of increased speed. Letters may not become fully formed and may assimilate into one another or into the handshape of a surrounding sign. Rapid fingerspelling usually occurs if a fingerspelled word is repeated in a communication event. The first time it is produced carefully, but once the audience recognizes it, it may be produced rapidly. The shape and movement will be maintained so the word is still recognizable even if letters are assimilated and produced hastily (Ross, 2004). Rapid fingerspelling may be difficult for students of ASL and interpreters to perceive without practice. If attention is paid to catch the shape and movement of the initial careful fingerspelling, provided this is intentionally articulated, reception and comprehension will be easier.

Some fingerspellings in ASL are articulated more like a sign and appear to be the most dramatically different from careful and rapid fingerspellings. A lexicalized fingerspelling uses the handshapes of the ASL manual alphabet with adjustments in standard parameters. Letters are omitted, movement is added, and palm orientation may be altered. ASL lexicalized fingerspellings are usually adapted from English words with short spellings. For instance, the word "job," which could be produced with the three free morphemes J, O, and B is produced as \#JOB. This lexicalized fingerspelling combines the letters and acts like a single morpheme, or one sign. The J remains visible, the O is omitted, and the sign ends with the B handshape in an
untraditional orientation after a sweeping, twisting movement. The "\#" symbol is used to represent a lexicalized fingerspelling (Valli, Lucas, \& Mulrooney, 2005).

When a fingerspelling evolves in this way to fit the grammatical rules of ASL and is widely accepted by the Deaf community it becomes added to the catalog of lexicalized fingerspellings. The evolution of movement and handshape allow the lexicalized fingerspelling to fit the rules of ASL structure, which state that a sign may not contain more than two handshapes produced by the dominant hand (Mulrooney, 2002). Clearly these are different from rapid fingerspellings because they now become unique signs and are recognized by all ASL users, not simply communication partners in an isolated discourse event. They do not require full careful fingerspellings before they can be introduced because they are actual signs. Some other common examples include: \#CAR, \#DOG, \#wHEN, and \#BACK.

These three categories are the most common norms of production of fingerspelling in ASL discourse. It is worth mentioning that, in his research on language contact between ASL and English, Davis (1989) observes and classifies another norm that occurs in isolated communication events. He identifies a category of "nonced" fingerspellings, which behave like lexicalized fingerspellings in that they are produced at rapid speed with omissions of letters and assimilations of handshapes and movement. Unlike lexicalized fingerspellings, a carefully produced fingerspelling must be introduced first to establish the sign. These nonced fingerspellings are not recognized by the greater community and apply only to a single communication event. Usually they are introduced when a word or lexical specification is repeated so frequently in discourse that it can be condensed for ease to lessen reliance on careful or even rapid fingerspelling, which take more time and effort to produce.

There has been no research to study how many times a careful fingerspelling is produced before it becomes acceptable to shift to a more rapid production. It may depend on the signer's personal preference or feedback from his or her audience. It may also depend on the context of the situation. For example, in a classroom, a careful fingerspelling may be used to introduce a new term, then rapid fingerspelling may be used for repeated mention during the course of a lesson. The careful fingerspelling may be rearticulated at the end, or at other points during the lesson to reinforce an important English spelling the students should know. In another situation, the casual nature or low stakes of an informal conversation may influence a signer to resort to rapid fingerspelling sooner and possibly never revisit its careful form unless clarification is requested or perceived as necessary. It would be interesting to see a study of whether there is a standard practice, or a range of practices, among Deaf native ASL users in natural discourse.

These basic norms occur in discourse and are used differently depending on the purpose behind the fingerspelling. The most common reason for fingerspelling in ASL discourse is the labeling of nouns. It is also used for abbreviations and acronyms. Fingerspelling for lexical specification can be broken down into three main practices (semantic specification, flagging, and introduction of new terminology) with various norms of production. Finally, fingerspelling is often used in discourse for emphasis (Ross, 2004).

Fingerspelling is most frequently used in ASL discourse to label nouns. Proper nouns, such as names of people, titles, stores, and places, are commonly fingerspelled and may occasionally be replaced by a sign name or something like a home sign that members of a small community recognize (Ross, 2004). Because these words are not necessarily commonly known they are likely to be spelled carefully at least once when they are introduced. Once the conversation partner understands and recognizes what or who is being referenced, a signer may
switch to a rapid norm of fingerspelling or introduce a mutually agreed upon sign for the duration of the event. One half of all fingerspelled words in the videotext analyzed in Appendix A were noun labels. The one word that was repeated, "Ebay," was fingerspelled carefully the first time and rapidly subsequently (Appendix A).

Abbreviations and acronyms make up another large percentage of fingerspelling used in ASL discourse. Some may be unique to the community of ASL users and others may be influenced by language contact with English. For example, the English words "apartment" and "company," which are commonly abbreviated in writing as "apt" and "co," have become lexicalized fingerspellings in ASL (\#APT and \#CO). These lexicalized fingerspellings are accepted into the language as the standard sign. There are some fingerspellings for abbreviations that relate specifically to members of the Deaf and signing communities that are not lexicalized. Abbreviations for organizations and institutions like RID, NAD, and NTID as well as programs like SSI and SSD are produced by fingerspelling the initials. These sometimes appear to be produced rapidly without a careful introduction, because most members of the community are familiar with these abbreviations and what they stand for based on shared knowledge (Ross 2004). If suitable framing or context is provided in the introduction to a text, words that are related to the subject may be fingerspelled rapidly initially because the audience is prepared to see them in the following discourse. In the videotext analyzed in Appendix B, the title indicates that the Deaf man will be discussing his new PC and monitor. Abbreviations like \#PC, W-I-F-I, and D-S-L are fingerspelled rapidly, not at the expense of clarity (Appendix B).

In ASL discourse, fingerspelling is used for different purposes that are all considered types of lexical specification. These categories are: semantic specification, flagging, and introduction of new terminology. The norms and methods of production differ slightly for each.

Semantic specification allows signers to choose an exact English word to associate with a sign that could have multiple meanings or be interpreted in various ways. For instance, the sign commonly glossed as APPOINTMENT may correlate to different English words depending on the circumstance. The meaning always refers to a scheduled or agreed upon time to do something. If the meeting is with a doctor, then "appointment" is the appropriate English word. If the meeting is with a friend for dinner at a restaurant, then "reservation" would be a more appropriate choice. Consequently, some signers will sign APPOINTMENT and then fingerspell R-E-S-E-R-V-A-T-I-O-N to make a semantic specification. Individuals may execute this in different ways. "Sandwiching" or producing a sign, followed by the fingerspelled word, then repeating the sign (or fingerspelling, sign, fingerspelling) is the most common structure used to incorporate semantic specification into ASL discourse (Ross, 2004). In the video text analyzed in Appendix A, the Deaf signer uses the sandwiching technique to specify the word "collect" when he signs COLLECT C-O-L-L-E-C-T COLLECT in the beginning of his vlog that deals with magazine collections. It is understood that when he uses that sign subsequently to this instance of semantic specification that it will be understood to mean "collect" (Appendix A).

Flagging is another method of lexical specification that enables a signer to associate an English word to a sign with multiple meanings or a classifier that doesn't have one specific meaning. This is specific based upon the situation. Flagging allows a signer to specify that for the remainder of this discourse event this sign should be understood to mean this English word. For example, the sign usually glossed as ReLAX may be flagged with the fingerspelling P-A-S-S-I-V-E and will be understood to mean "passive" for the duration of the communication event (Ross, 2004). It can also be used by a signer to indicate that by signing MEAT they actually mean B-E-E-F or S-T-E-A-K or H-A-M. A signer who uses the sign traditionally glossed as

COMPETE may use flagging to specify S-P-O-R-T-S or R-U-N (as in "run for office") depending on the context if he would like to be more specific. Examples of classifiers accompanied by flagging occur in natural discourse, and they may occur even more frequently in interpreted discourse especially in educational settings where students are expected to learn English vocabulary. An interpreter might use flagging after using the two handed C-handshaped classifier (CL: CC) with wiggling fingers that is often associated with a mass of animals moving in a group. He or she might fingerspell F-L-O-C-K, G-A-G-G-L-E, or P-A-C-K after using the more general classifier to introduce vocabulary and use another classifier and fingerspelling combination to further detail lumbering, prancing, or other specific way of moving. This expansion is similar to the lexical specification method for introduction of new terminology used regularly in natural ASL discourse.

When new terminology is introduced into any language it takes time for the community of users to associate a term with its new meaning. In the American Deaf community, which exists in close proximity to mainstream hearing American culture, new terms are brought into ASL due to this close contact. Most frequently in this technological age, fingerspelled forms of the English words for new inventions will pervade ASL discourse as the new terms become more well known. Sometimes "linking" (fingerspelling a word then providing a signed expansion of its meaning) will be used initially (Ross, 2004). The community may ultimately decide on a sign (or variations of signs) or a lexicalized fingerspelling for the new terms when conventional fingerspelling (careful and rapid) becomes tedious. This can be seen in the community's current trend of either fingerspelling I-P-H-O-N-E or using a sign that looks like scrolling on a touch screen or the initialized letter "I" placed on the side of the face where one would hold a
telephone. Sometimes a sign is borrowed from another signed language if it makes sense culturally to the American Deaf community.

In the video "I Got a Brand New PC and Monitor," the signer uses fingerspelling for lexical specification purposes to discuss the new technology he has purchased. He signs W-I-F-I (an abbreviation in ASL borrowed from English), then carefully fingerspells W-I-R-E-L-E-S-S for clarification. He also uses sandwiching to flag his sign WIRE, adding E-T-H-E-R-N-E-T, and then signing WIRE again (Appendix B). Wireless Internet and Ethernet cables are not incredibly recent developments, but they are still relatively new pieces of technology. Perhaps as more Deaf people use them and discuss them (possibly on an academic/collegiate level) signs will emerge or even lexicalized fingerspellings.

Another example of new terminology being introduced into ASL as a result of close contact with English is a new trend of half-signed, half-fingerspelled compound words. These "signed-fingerspelled compounds" have been pointed out in some preliminary research published by Gallaudet University's Visual Language \& Visual Learning organization (Baker, 2010). Usually the first portion of an English compound word adapted into ASL is signed and the second half is fingerspelled. Padden (2009) mentioned this emerging subject in her presentation to the ASLTA and gave the example of "hardware," which it is now commonly acceptable to sign as HARD + W-A-R-E. This change in how ASL uses signs and fingerspelling in conjunction in discourse requires further research.

Finally, sometimes fingerspelling is used in discourse instead of an existing sign as a way of placing emphasis on a word (Ross, 2004). One study shows that this frequently occurs with nouns, occasionally verbs, and rarely adjectives and adverbs (Mulrooney, 2002). Padden (2009) supported this finding in her presentation to ASLTA. When fingerspelling is used instead of an
established sign it is clear that the signer is going out of his way to make a point. This may appear to mirror the purposes of semantic specification, but it does not require the coupling with a sign; therefore, it may be assumed that the signer wishes to select a precise English word, but this connotes some other purpose. Perhaps the fact that fingerspelling a word that could simply be signed takes more time and effort indicates that this word is being stressed or carefully, intentionally selected. "Focusing," or making reference to a fingerspelled word with one's eyegaze or the non-dominant hand can add further emphasis to important fingerspellings (Ross, 2004). This strategy may be used in more formal discourse to pinpoint key terms in discussion that are specific to a topic. In one of their informational videos, Deaf Video TV, introduces their staff. Jared, the Deaf signer in this video, emphasizes the word "try" by fingerspelling it instead of using the sign TRY. In this particular phrase-which could be translated as "give it a try once"-he is using the word as a noun (Appendix C). Nouns are commonly emphasized and in this particular situation the amount of emphasis makes sense because he is trying to compel the audience to do something.

Fingerspelling for emphasis can also be used in casual conversation for dramatic effect. Some degree of creativity and flexibility with language is associated with this type of fingerspelling. A signer may toy with the movement or location of a fingerspelled word to add further emphasis. For example, fingerspelling F-O-O-D across the forehead to mean "food on the brain" is slightly humorous and more effectively achieves emphasis than signing a statement equivalent to "I can't stop thinking about food" or "I'm very hungry." It is more visually dynamic and could be a device to add stylistic variety within the constructs of ASL discourse.

In addition to labeling nouns, utilizing acronyms or abbreviations, lexical specification, and emphasis, fingerspelling is also occasionally used in discourse for spelling. Unlike all other
instances of fingerspelling in which the signer and viewer's focus is intently on the shape and movement of the fingerspelling as a full word, this type concentrates on individual letters. This is common when someone is teaching or learning the English spelling of a word. Fingerspelling for this purpose is the least commonly occurring in natural discourse.

While English speakers rarely use spelling in discourse, fingerspelling is an essential component of ASL. Its implementation in discourse does not draw special attention to the act the way someone might react if an English speaker suddenly stopped using words to pause and spell out a word (Mulrooney, 2002). American Sign Language users depend on fingerspelling and treat it as they would any other sign in its execution and reception.

More research is required on how fingerspelling is performed in relation to prosody and discourse. Observations can be made about the pausing, head tilts, eye gaze, and mouth shapes used in conjunction with fingerspelling when used for different purposes, but more analysis is required to draw conclusions. A study that takes into account the register and rhetorical genre in which fingerspelling occurs and its purpose is needed to better understand the discourse markers that help to make fingerspelling a natural part of ASL discourse.

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## Appendix A

Video Analysis for Fingerspelling as Part of ASL Discourse: Text 1

| "Deaf Player on Sports Illustrated Magazine" by Keysports68 <br> $0: 00-3: 25$ (http://www.deafvideo.tv/153903) |  |  |
| :--- | :--- | :--- |
| Fingerspelled Word | Discourse Norm Used <br> (careful, rapid, <br> lexical, nonced) | Purpose/Discourse Structure Used/ <br> Other Notes |
| Ebay | Careful | Noun Labeling (eye gaze focus) |
| if | Lexical | Conditional |
| collect | Careful | Semantic Specification (sandwiching- <br> sign, FS, sign) |
| Ebay | Rapid | Noun Labeling |
| bid | Careful | Flagging (for clarification <br> accompanied by slight squint; FS, the <br> sign) |
| Winnipeg Jets | Careful | Noun Labeling |
| Jim Ryte | Careful | Noun Labeling |
| GA (Georgia) | Lexical | Noun Labeling |
| Willie Brown | Careful | Noun Labeling |
| Sports Illustrated | Rapid | Noun Labeling (it had not been <br> spelled slowly before, but the title is <br> in the title of the video and on the <br> cover he held up to the camera) |
| or |  | Caused by English contact? <br> Emphasis? |
| Inbox | Lexical | New term? |

## Appendix B

Video Analysis for Fingerspelling as Part of ASL Discourse: Text 2

| I got a brand new PC and Monitor" by Kraut1944 <br> $0: 35-2: 30$ (http://www.deafvideo.tv/153743) |  |  |
| :--- | :--- | :--- |
| Fingerspelled Word | Discourse Norm Used <br> (careful, rapid, <br> lexical, nonced) | Purpose/Discourse Structure Used/ <br> Other Notes |
| DVTV | Rapid | Abbreviation (commonly known on <br> source site) |
| YouTube | Rapid | Noun Labeling (commonly known) |
| back | Lexicalized | Directional Verb |
| PC | Lexicalized | Noun Labeling |
| monitor | Careful | Noun Labeling |
| monitor | Rapid | Noun Labeling |
| LCD | Rapid | Abbreviation (commonly known) |
| PC | Lexicalized | Noun Labeling |
| WiFi | Careful | Abbreviation/New Terminology |
| Wireless | Careful | Flagging- clarification |
| Ethernet | Careful | Semantic specification (signed <br> WIRE, FS, WIRE) |
| DSL modem | Careful | Noun Labeling |
| HOT + W-I-R-E | Compound | New Terminology/Noun Labeling |
| USB | Careful | New Terminology/Noun Labeling |

## Appendix C

Video Analysis for Fingerspelling as Part of ASL Discourse: Text 3

| Meet Jared" by deafvideotv <br> 1:53-3:19 (http://www.deafvideo.tv/154030) |  |  |
| :--- | :--- | :--- |
| Fingerspelled Word | Discourse Norm Used <br> (careful, rapid, <br> lexical, nonced) | Purpose/Discourse Structure Used/ <br> Other Notes |
| Jared Evans | Careful | Noun Labeling |
| DVTV | Rapid | Abbreviation |
| Taylor | Rapid | Noun Labeling (previous mentioned) |
| Web | Lexicalized? Nonced? | New Terminology? |
| DVTV | Rapid | Abbreviation |
| Web | Lexicalized? Nonced? | New Terminology? |
| or | Lexicalized | Emphasis |
| Web | Lexicalized? Nonced? | New Terminology? |
| DVTV | Rapid | Abbreviation |
| DVTV | Rapid | Abbreviation |
| DVTV | Rapid | Abbreviation |
| try | Rapid | Emphasis ("give it one try") |

