

Gendered Phonology, Morphology, and Animacy in Irish Sign Language

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Abstract: With National Science Foundation support, 12 months of research was conducted on a rare and dying form of gendered Irish Sign Language (ISL) used in Dublin, Ireland. In one segment of the Dublin deaf community, the native vocabularies for women (born before 1929) and men (born before 1944) are so different that they can impair communication on the most mundane of topics. For example, men and women have totally different signs for simple, everyday terms such as 'cat,' 'Monday', 'night', 'red', and 'carry'. These varieties emerged from sex-segregated education at two residential deaf schools in Dublin. Clearly, signers left with different vocabularies. What is not yet known, however, is whether these gendered language differences are also expressed in phonological, morphological or in any other grammatical system. This poster will report on the preliminary findings of the NSF-supported research project that show gender differences in the phonology of this sign language.

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Questions:

1. Are there any distinctively gendered handshapes, movements, or points of articulation?
2. Is grammar gendered in any way?

Background:

The gendered signs originate from school language policies in Dublin, Ireland at St. Mary's School for Deaf girls and St. Joseph's School for Deaf boys.

~~**REZ PLEASE [put in box with arrow, two photographs, one of each school, and the chart showing sign and oralism affects on gender - see other poster - just take them off of it]**~~

Figure 1. Schools for the Deaf in Ireland**Methodology:**

Coding the Data: ELAN

To convert our video data into a more easily quantifiable and analyzable format, we made use of ELAN, a program developed by the Max Planck Institute for Psycholinguistics in the Netherlands (Figure 2). ELAN permits us to create dynamic, text-based notations linked to digital video files. In this way, we can create annotations that are linked to intervals of the video that correspond to certain signs, signers, or any aspect of these that we choose. These annotations can then be searched using any parameter or combination of parameters we have chosen to assign to the data, facilitating compilation, quantification, and analysis that would otherwise be unwieldy and difficult to keep track of.

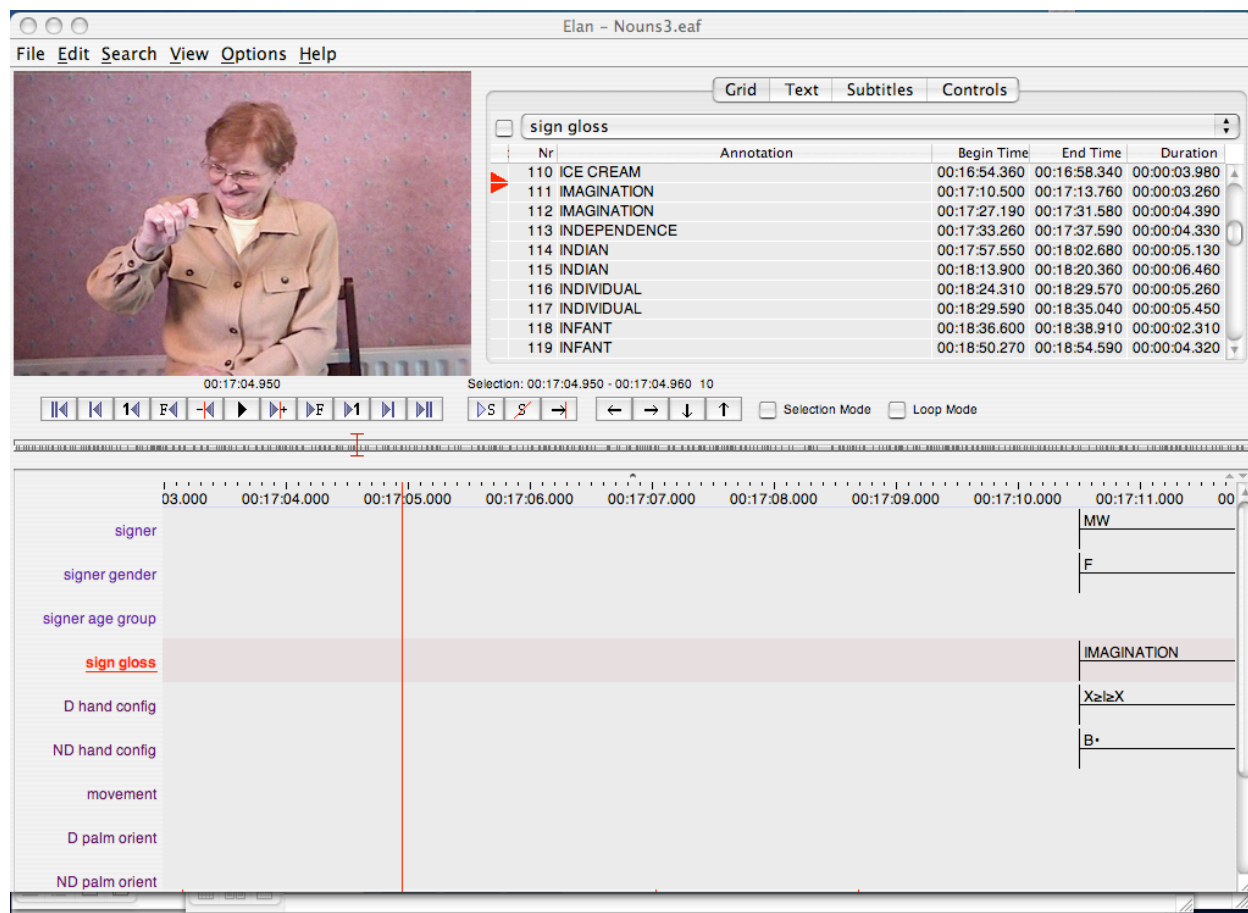


Figure 2. The ELAN Interface

Findings:

Gendered Handshapes:

Our analysis has yielded gendered distributions of the phonological variable of handshape. Specifically, differences were noted in the production of the letters B, T and E.

The general B handshape has the thumb flexed toward and aligned with the palm, as shown in this illustration:

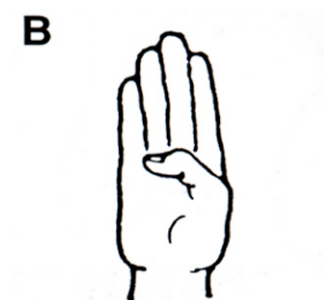


Figure 3. General B Handshape

A modified B is used in many signs. Modified B handshapes generally show variation in the placement of the thumb. The variation more closely associated with female signing has the thumb aligned with the fingers and pressed alongside the palm and forefinger, as shown here in the female sign BANDAGE:



Figure 4. BANDAGE (female sign)

The variation more closely associated with male signing has the body of the thumb aligned with the palm, as above, but with the finger joint extending the tip of the thumb away from the palm, as shown here in the male sign for HANDS:



Figure 5. HANDS (male)

The formation of the letter T also shows gendered distribution. The T more closely associated with male signing is shown below in the sign for TEAR, with the thumb placed under the curled index finger:



Figure 6. TEAR (male)

The variation more closely associated with female signing places the thumb between the index and second fingers, as is done in the American Sign Language T: (shown in female sign TAKE-TURNS:



Figure 7. TAKE-TURNS (female)

Variations of the letter E are much less frequent than the above variations, but much more gendered in distribution. The E used occasionally by females has the finger joints and thumb extended to a great degree, resulting in the fingers and thumb being further away from each other and flatter than the male, 'standard' variation (here shown in the female sign EXACT:



Figure 8. EXACT (female)

The male, 'standard' variation has the fingers and thumb touching each other and a more rounded palm shape, as in the male sign EASTER:



Figure 9. EASTER (male)

Movement:

The sex of the signer matters for some movements (MOV) and places of articulation (PA).

There appears to be a characteristically female twisting MOV, coded as 'w'. The movement can be described as moving hand(s) smoothly in a 270-degree arc. An example of MOV-w is seen in the female sign, DECLARE (figure 11). Similarly, there appears to be a characteristically male movement where two hands move back and forth (coded as 'Z') with no twisting motion as in the sign below (2h:Z) (figure 12).

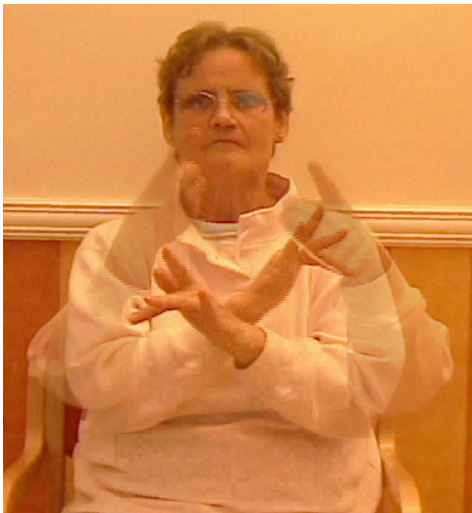


Figure 11. DECLARE (female)



Figure 12. DEFEND (male)

There is another characteristically female MOV: open/close (coded as 'D/#') with two different handshapes (Y=/Y, 5"/O"); and one for a male sign involving an interchanging (@) MOV locked at the wrist.



Figure 13. FOX (female)

The specific handshape in the category of open/close, D/# in female signs as described as Y=/Y can be found in (and may not be limited to) FOX (figure 13), LEAF/LETTUCE, and PIG. The

other signs with the same movement, but with a different handshape, 5"/O" are BRANCH/WOOD and MILK (figure 14).



Figure 14. MILK (female)

In male signs, the interchanging "@" MOV (at fingertips or locked-wrists) is found in GAME (figure 15) and GHOST.



Figure 15. GAME (male) - [Rez - can you extract this from the photo frame?]

Many American Sign Language scholars have noted that modern signing generally occurs in a space from the bridge of one's nose to the bottom of their rib cages (Baker and Cokely 1980, Frishberg 1975, Battison 1978). Frishberg showed that signs occurring outside of this "signing space," such as signs on or over the head, or at the waist or hip are more archaic signs that move into the signing space over time (Frishberg 1975). Some of the places of articulation (PA) for the female Irish signs in our data include either unlikely and highly unusual PAs for sign languages, such as a sign on the back (e.g. CAMEL, figure 16), or signs away from the core of the body which may indicate more archaic signing, such as in KING (figure 17), MERCY (figure 18), and MORNING (figure 19).



Figure 16. CAMEL (female)

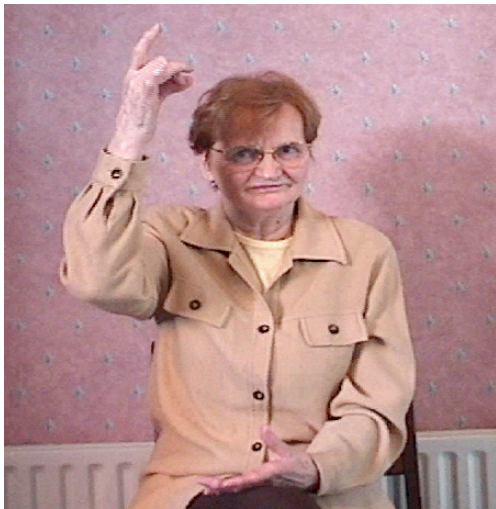


Figure 17. KING (female)



Figure 18. MERCY (female)



Figure 19. MORNING (female)

How the letter 'A' is produced in fingerspelled words also appears to have a gendered movement. In the photos below, code-switching is observed in the use of fingerspelled A by the woman. The first photo shows the man producing the A handshape facing his palm outward. The next photo shows the woman talking to the man, using the A handshape with her palm facing outward. The photo after that shows the woman using the A handshape with the palm facing toward herself. The last A handshape is a woman's version of the A when fingerspelling as a woman, while the outwardly facing position of the A handshape is a male form.

Finally, we have noticed a marker of animacy that appears to be gendered. Women have a particular head shake, side-to-side movement that indicates animacy. It is used for the signs ALIVE (figure 20), ANIMAL, LIVE, and LIFE. This marker of animacy is a strictly women's grammatical feature.

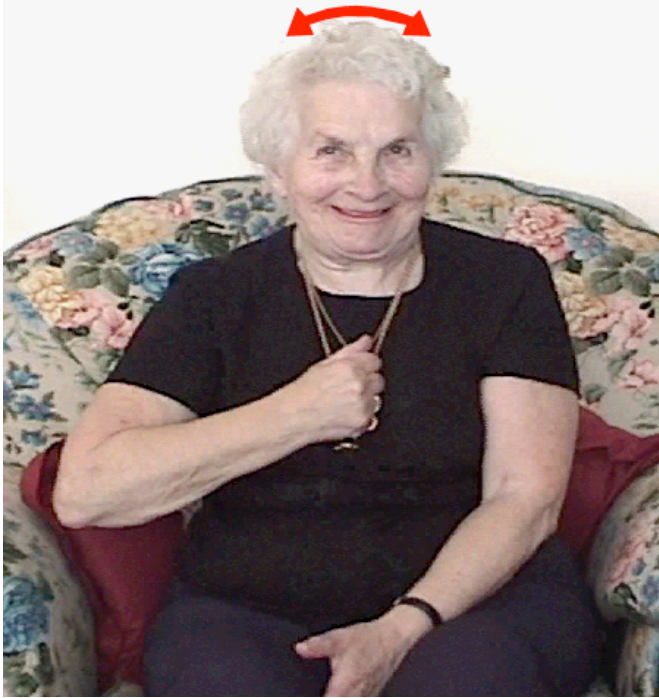


Figure 20. ALIVE (female)

For other work on gendered Irish Sign Language, please see Burns 1998; Crean 1997; Leeson and Grehan 2004; Leeson and Saeed 2004; LeMaster 1990, 1993, 2000, 2002, 2003, 2006; LeMaster and Dwyer 1991; LeMaster and Foran 1987; LeMaster and Monaghan 2004; Leonard 2004; Mathews 1996a, 1996b; McDonnell 1996a, 1996b, 1997; Ó Baoill and Matthews 2000.

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