Black and White Signing Space: A Case of Convergence?

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Black ASL study

The objectives of the first large-scale study are:

1. To create a filmed corpus of conversational Black ASL as it is used in the South. The focus is on the structure and history of Southern Black ASL because that region is where the most radical segregation occurred in the education of Black and White deaf children, creating the conditions for the development of a separate language variety.

2. To provide a description of the linguistic features that make Black ASL recognizable as a distinct variety of ASL and of the history of the education of Black Deaf children.

3. To disseminate the project findings in the form of teaching materials and instructional resources.
Black ASL as a variety

- Extensive research on African American English (AAE), with unique features identified at all levels of the language – phonology, morphology, syntax, lexicon – showing that AAE is a distinct variety of English (see Mufwene et al. 1998 and Green 2004 for reviews).

- Question of the unique features that have been identified for AAE could be identified for Black ASL as a distinct variety of ASL
  - Anecdotal reports about the existence of Black ASL, e.g. Hairston and Smith (1983) on “a Black way of signing”
  - Some confirmed differences in linguistic features in Black ASL in our study

<table>
<thead>
<tr>
<th>LANGUAGE CONTACT FEATURE</th>
<th>SYNTACTICAL FEATURE</th>
<th>DISCOURSE FEATURE</th>
<th>PHONOLOGICAL FEATURE</th>
<th>PHONOLOGICAL FEATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorporation of AAE into signing</td>
<td>Use of repetition</td>
<td>Use of role shifting</td>
<td>2-handed vs. 1 handed signs</td>
<td>Forehead location vs lowered</td>
</tr>
</tbody>
</table>

Black ASL Mosaic
Previous studies and observations on signing space

- **Frishberg (1975)**
  - Diachronic research has shown that there is an historical tendency for signs to "move down" from the periphery to the central signing space.

- **Lewis et al. (1995: 24)**
  - Mention the use of space in description of a person's answer to a question as to why he is wearing African American clothing

- **Aramburo (1989: 115)**
  - Reports that when Black Deaf Signers converse with Black Deaf Signers, they use larger signing space than they do with Black hearing, White Deaf, and White hearing signers

- **Tabak (2006)**
  - Discusses black children's signing at the BDO (Blind, Deaf, Orphan) school in Austin, TX
  - Reports that the signs produced by BDO students were larger than those of their white peers
  - Describes no data as the basis for this observation

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**Research Question**

- **Do Black signers use larger signing space than White signers?**
  - Test the claims made by Aramburo (1989) and Lewis et al. (1995)
    - Black Deaf signers use a bigger signing space
    - Black signers incorporate more body movement into their signing
Data

- Narrative genres
  - Structured narrative with cartoon stories
    - The re-telling of wordless cartoons with a lot of action
  - Free narrative in a group conversation
- Number of narratives
  - 24 structured narrative video samples
  - 21 free narrative video samples
- Video samples were randomly selected with one target signer in each sample
- 50 signs/sample were extracted and analyzed
- All signs in the narratives were glossed in ELAN (EUDICO Linguistic Annotator)
  - ELAN is developed at Max Planck Institute (MPI)

Data

- All plain and morphologically motivated signs were included in the analysis
  - Examples of morphologically motivated signs
    - Intensification in signs
    - Indicating verbs
      - directional agreement between location points in space that represent referents
    - Depicting verbs (aka classifier predicates)
  - Imposed a transparent grid on each video-clip to mark the signing space.
    - V: extends above the top of the head
    - L: extends below the waist
    - h: extends beyond the shoulders
    - H: extends beyond the raised elbows
    - U: within the boundary of the central signing space
Location Code

Signing space: elicited narrative example
Factors

Linguistic

- Grammatical category of signs were coded
  - Noun, adjective/adverb, plain verb, depiction/locative verb, indicating verb, function signs

- Intensity of signs
  - Tensions in the arms, torso movement, eye gaze at the co-interlocutor

- Genre
  - Structured narrative
  - Free narrative

- Areas of signing space

Social

- Age
  - Young (35 and younger)
  - Old (55 and older)

- Gender
  - Male
  - Female

- Race
  - Black
  - White

Distribution of variants

<table>
<thead>
<tr>
<th></th>
<th>Unmarked</th>
<th>Beyond shoulders (h)</th>
<th>Beyond raised elbows (H)</th>
<th>Above head (V)</th>
<th>Below waist (L)</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>N 671</td>
<td>322</td>
<td>87</td>
<td>43</td>
<td>24</td>
<td>1147</td>
</tr>
<tr>
<td>%</td>
<td>58.5</td>
<td>28.1</td>
<td>7.6</td>
<td>3.7</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>N 724</td>
<td>268</td>
<td>49</td>
<td>36</td>
<td>23</td>
<td>1100</td>
</tr>
<tr>
<td>%</td>
<td>65.8</td>
<td>24.4</td>
<td>4.5</td>
<td>3.3</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>N 1395</td>
<td>590</td>
<td>136</td>
<td>79</td>
<td>47</td>
<td>2247</td>
</tr>
<tr>
<td>%</td>
<td>62.1</td>
<td>26.3</td>
<td>6.1</td>
<td>3.5</td>
<td>2.1</td>
<td></td>
</tr>
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</table>

The great majority of signs that extended beyond the usual signing space extended to the right or the left. Few extended above the head and below the waist.

The variants that extended beyond the usual signing space were combined into a single variant.
Results of multivariate analysis

- Linguistic factors
  - Grammatical category is significant for both Black and White signers
    - Depicting and locative verbs and indicating verbs were most likely to extend beyond the unmarked space.
    - Adjectives and adverbs slightly favored the use of a marked variant by Black signers but slightly disfavored by White signers.
    - Plain verbs, nouns, pronouns, and function signs were most likely stayed within the boundary of the unmarked space.
  - Little difference in the results of intensity of signs between Black and White signers
    - Black signers use more space in the structured narratives while White signers use more space in the free narratives

<table>
<thead>
<tr>
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<th>Weight</th>
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</thead>
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<td>41.5</td>
<td>.539</td>
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<tr>
<td></td>
<td>White</td>
<td>1100</td>
<td>33.5</td>
<td>.460</td>
</tr>
<tr>
<td>Age</td>
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<td>1202</td>
<td>40.3</td>
<td>.539</td>
</tr>
<tr>
<td></td>
<td>Old (55+)</td>
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<td>35.2</td>
<td>.455</td>
</tr>
<tr>
<td>Gender</td>
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<td>1147</td>
<td>35.9</td>
<td>.468</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>1100</td>
<td>39.8</td>
<td>.531</td>
</tr>
<tr>
<td>Total</td>
<td>Input</td>
<td>2247</td>
<td>37.9</td>
<td>.368</td>
</tr>
</tbody>
</table>

Notes: application value = “marked” (extends beyond usual signing space); log likelihood = –1337.517, chi-square/cell = 1.2578.
Conclusion

- The grammatical category constraint ranking is identical for both Black and White signers.
- The intensity factor shows similar results for both Black and White signers.
- The favorability of the marked variant in the structured and free narratives is unclear. Further work is suggested to see if this is an epiphenomenon.
- Results for elicited narratives show that Black signers and young signers are more likely to exceed the boundary of the signing space than are White signers and older signers.
Black ASL Project Website

- [http://blackaslproject.gallaudet.edu/](http://blackaslproject.gallaudet.edu/)

The History and Structure of Black ASL: Research Team

- **Project Co-Directors**
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- **Technical Consultant**
  - Randall Hogue, Gallaudet University

- **Community Representative and Archivist**
  - Pam Baldwin, Washington, DC
Acknowledgments

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References