Lexical variation and change in British Sign Language

Adam Schembri

Rose Stamp, Jordan Fenlon, Ramas Rentelis, Kearsy Cormier, Bronwen Evans & Bencie Woll



LA TROBE UNIVERSITY

E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL

Overview of presentation

- Background to British Sign Language Corpus Project
- Study 1: Lexical variation and change in BSL
- Study 2: Accommodation and dialect contact
- Implications
- Conclusion

Corpus linguistics

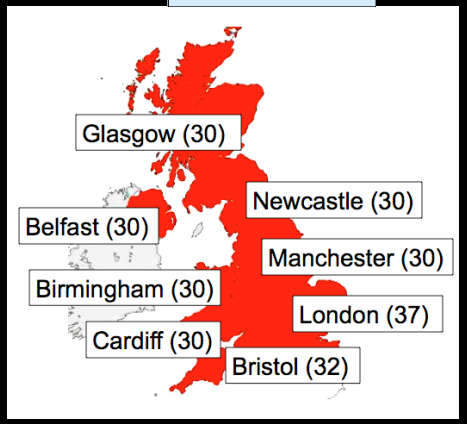
- A corpus is a representative sample of a community's language that is transcribed and coded and available to be shared among different users and that can be searched using a computer
- Corpus projects for sign languages are new, and an area in which Australian research is leading the world
- These will create an 'evidence base' for sign language research that previously did not exist

BANZSL corpus/sociolinguistic variation projects

- Sociolinguistic variation in Auslan project: 2003-2005
  (researcher with Trevor Johnston & Della Goswell)
- Auslan Corpus project: 2004-present
  (researcher with Trevor Johnston)
- Sociolinguistic variation in NZSL project
  (consultant for David & Rachel McKee)
- BSL Corpus Project
  (project director, working with Jordan Fenlon, Ramas Rentelis, Rose Stamp, Kearsy Cormier & Bencie Woll)

Background to the projects

- Auslan: 2 projects filmed 255 deaf participants in 5 cities across Australia
- NZSL: 138 deaf participants from 5 cities and towns across New Zealand
- BSL: 249 Deaf participants in 8 cities in the UK
- Projects used elicited narratives, spontaneous narratives, free conversation, interviews, lexical elicitation, responses to video stimuli, barrier games



Why?

- To create digital collections of Auslan, NZSL & BSL data to document the languages of each Deaf community
- To provide an evidence-base for a linguistics of BANZSL varieties, as well as for sign language teaching and interpreter training
- To investigate the factors influencing sociolinguistic variation and change in BANZSL varieties

Studies to date

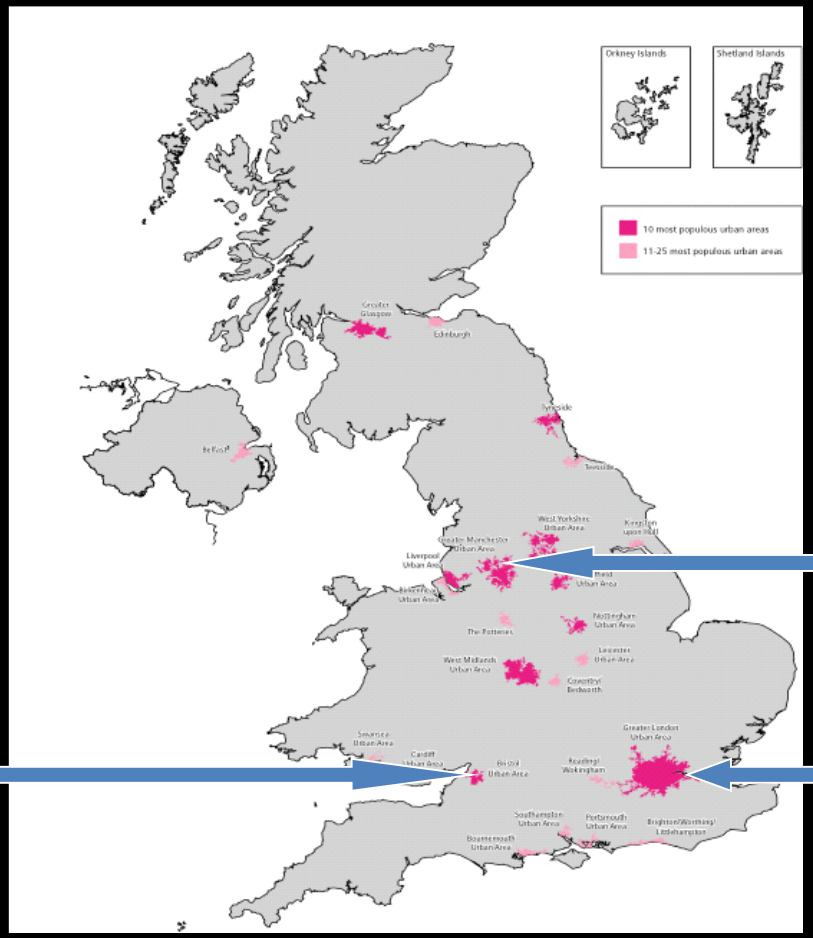
- Phonological variation and change
  - Location variation in Auslan & NZSL (Schembri et al., 2009)
  - Handshape and orientation variation in BSL (Fenlon et al., 2010)
- Lexical variation and change
  - Number signs in NZSL (McKee et al., 2010)
  - Number, colour and country signs in BSL (Stamp et al., 2010)
  - Fingerspelling in Auslan (Schembri & Johnston, 2007)
- Grammatical variation and change
  - Directional (‘indicating’) verbs in Auslan (de Beuzeville et al., 2009) & BSL (Fenlon et al., 2014)
  - Variable subject expression in Auslan & NZSL (McKee et al., in press)

Lexicon

- Lexical variation and change in BSL & Auslan: Number, colour, placename signs & fingerspelling

Regional variation in BSL

e.g. SIX



Manchester

London

Bristol

Research questions for BSL

- Is there any correlation between the sign variants used and social factors?
- Is there any evidence of dialect leveling taking place in BSL?
  - *"…a process whereby differences between regional varieties are reduced, features which make varieties distinctive disappear, and new features emerge and are adopted by speakers over a wide geographical area."*

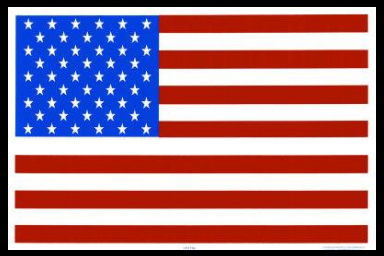
    Williams & Kerswill (1999)

Lexical elicitation task

e.g. Numbers 1-20

5, 19, 15, 2, 14,1,
7, 16, 11,
4, 18, 6,13, 17, 10, 3,
9, 20, 12, 8

e.g. countries (8)



AMERICA

e.g. colours (5)

GREEN

Variables under investigation

- Number signs 1-20

Signs for countries:

- AMERICA
- BRITAIN
- CHINA
- FRANCE
- GERMANY
- *INDIA
- IRELAND
- ITALY

Signs for colours:

- BROWN
- GREEN
- GREY
- PURPLE
- YELLOW

Coding of sign variants

All signs were coded as: Traditional or non-traditional sign variants

Data was coded for the following factors:

1. Age (16-39, 40-59, 60+)
2. Gender (male vs. female)
3. Language background (parents Deaf or hearing)
4. School locality (local or non-local school)
5. Social class (working or middle)
6. Semantic category (number, country or colour)

For number sign data only:

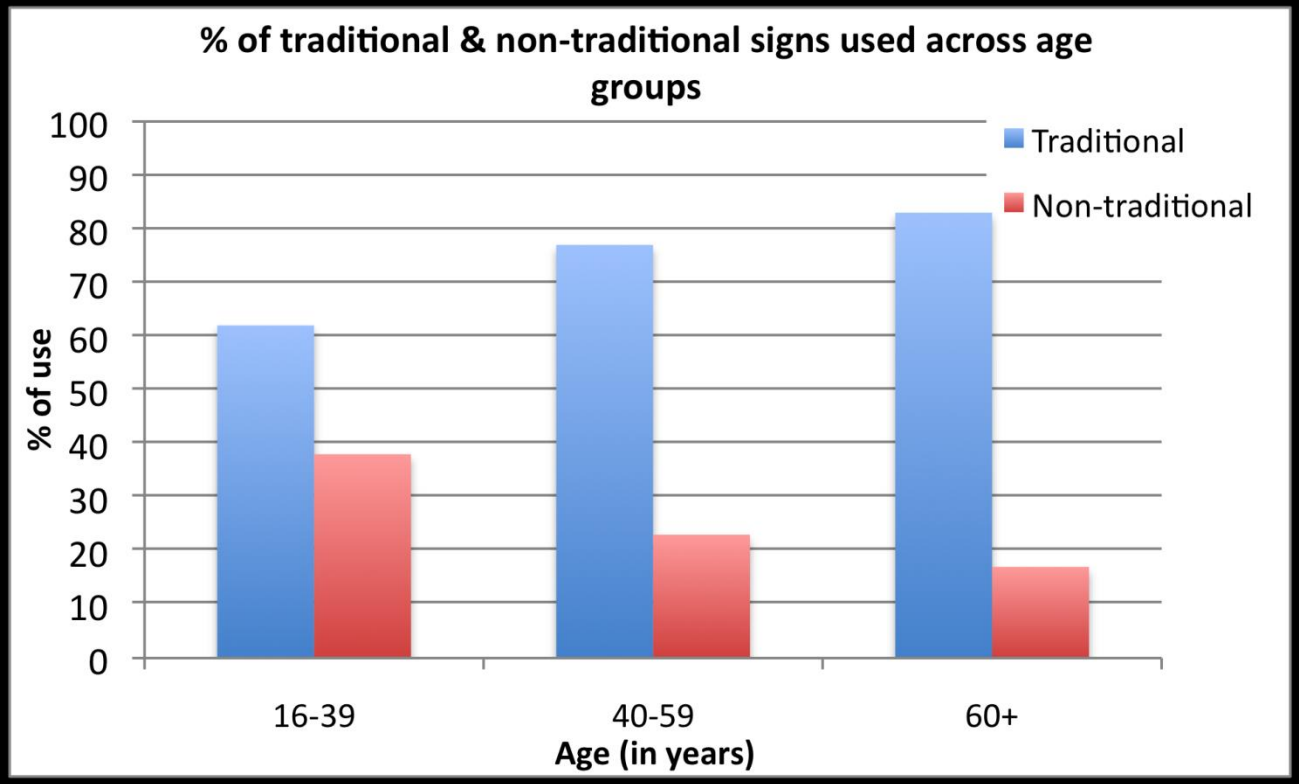
1. Ethnicity (White, Asian, Afro-Caribbean, etc.)
2. Teacher of BSL

Results

- Results from 7332 examples
- Four significant factors predict the use of non-traditional signs:
  - Age
  - School locality
  - Language background
  - Semantic category of the sign
- Gender & social class were not significant factors in the full analysis
- For number sign data: teaching experience & ethnicity were not significant factors

Age: language change?

- Apparent time hypothesis (Bailey, 2002)



UK place names: In-group/out-group effect

In-group/out-group effect for the following UK place names:

- Belfast
- Glasgow
- Manchester
- Newcastle
- Cardiff
- Bristol
- Birmingham

e.g. Birmingham

Bristol

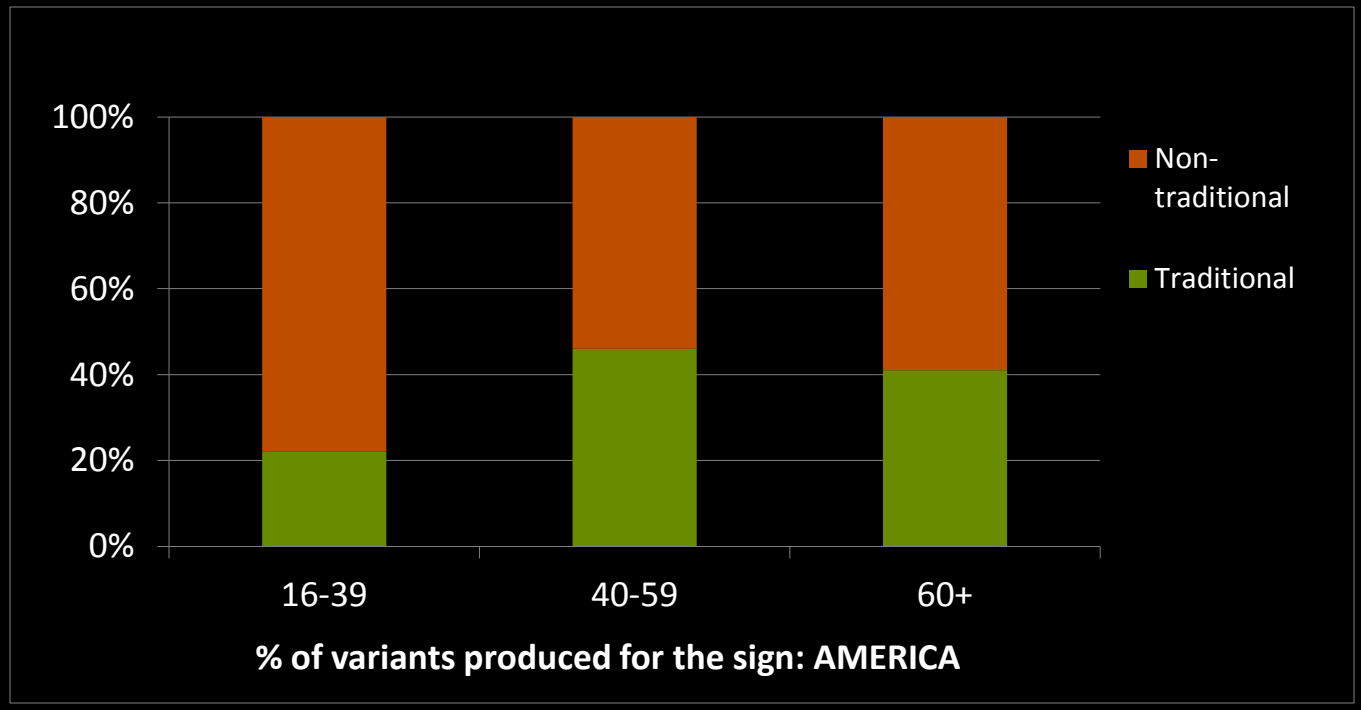
Cardiff

LET vs. Conversational data

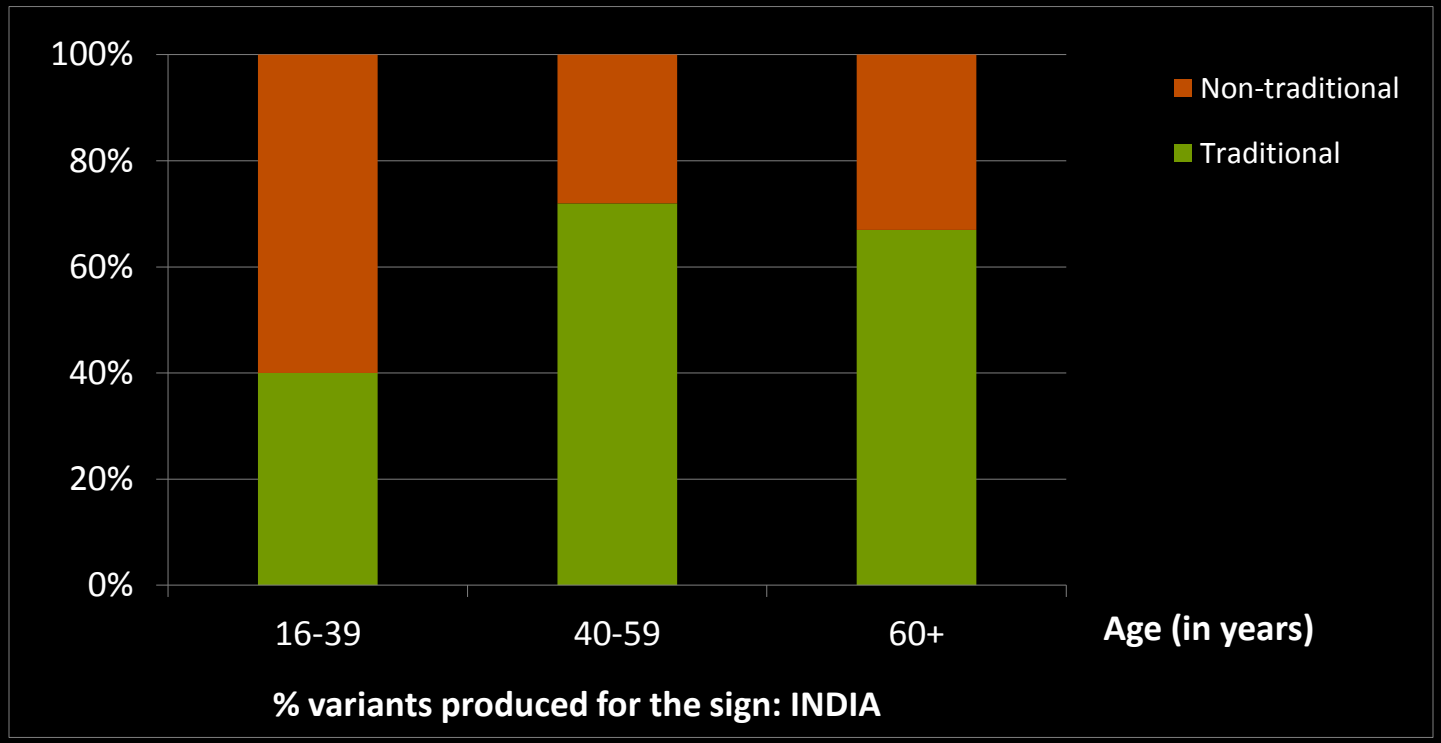
- 371 tokens from the conversational data were analysed
- 78 tokens (21%) were not the same sign variant as in the lexical elicitation task
- 61 tokens (of 78) were non-traditional sign variants

e.g. GREEN

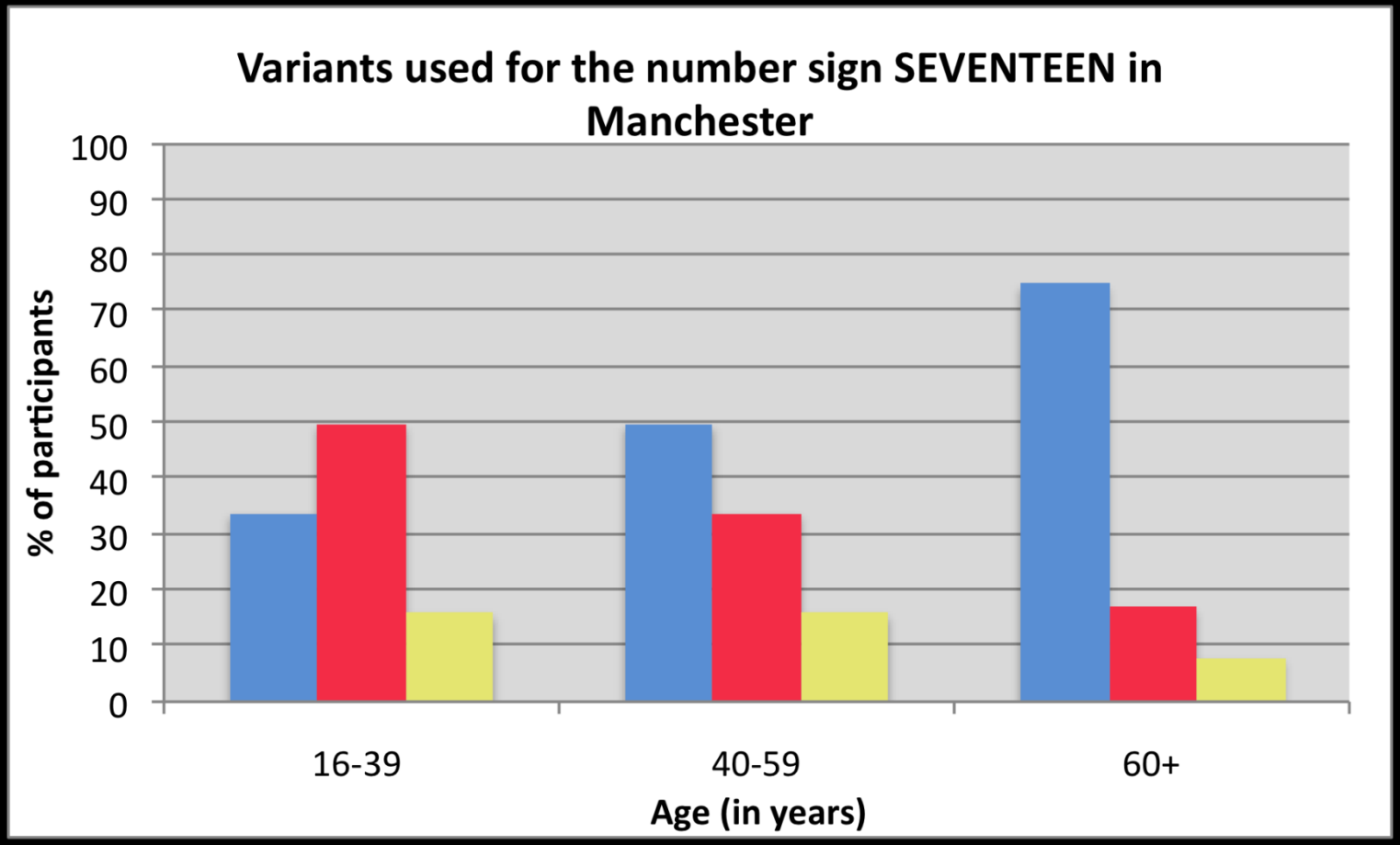
Country example 1: AMERICA



Country example 2: INDIA



Number sign SEVENTEEN in Manchester

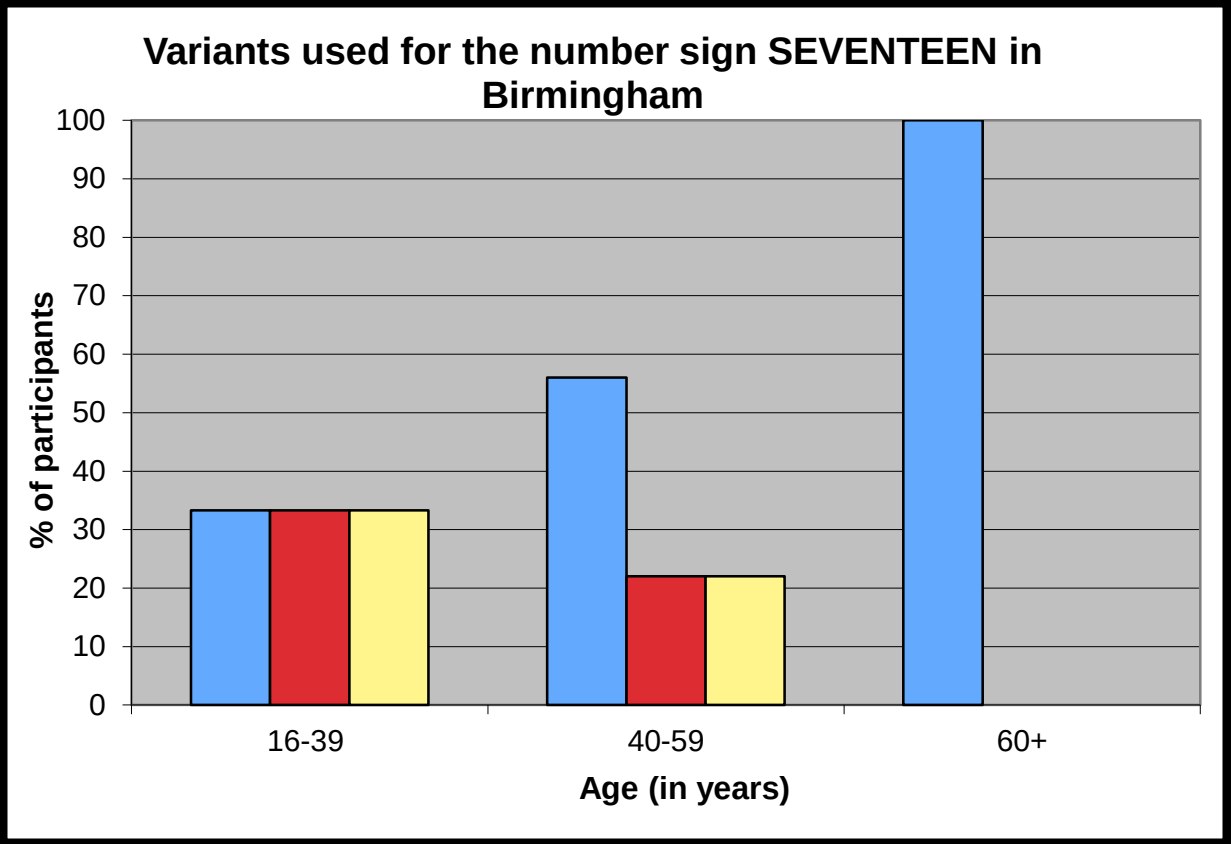


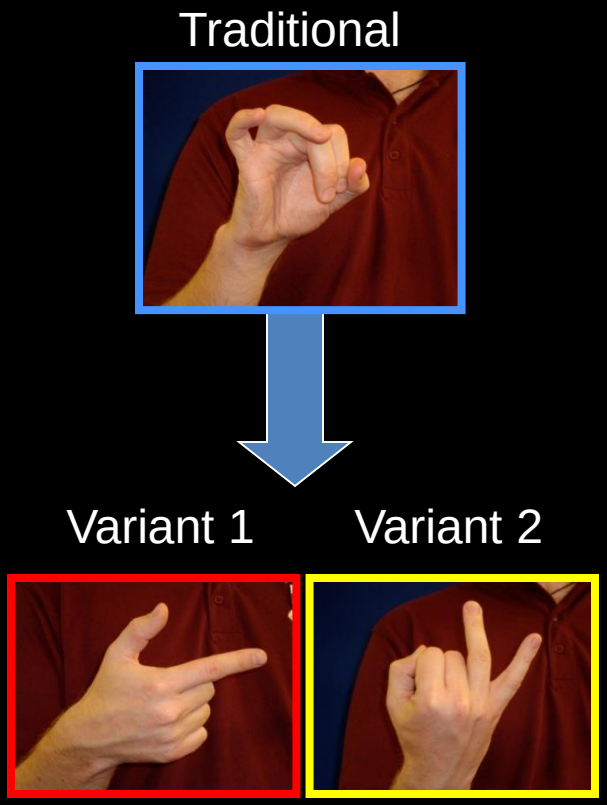
Traditional

Variant 1

Other

Number sign SEVENTEEN in Birmingham





Research questions

To explore whether dialect contact has influenced lexical change in BSL:

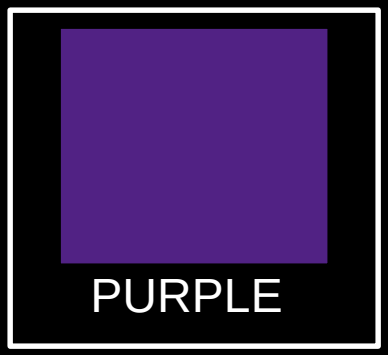
(1) Is there evidence the signer's accommodate to the dialect of other signers over the course of a single conversational interaction?
(2) To what extent do signers understand other BSL regional varieties?

- Compare to findings in Woll, 1991
  - Difficulty understanding Northern Irish (44%) & Scottish (12%) signers

Background: BSL dialects & change

- BSL exhibits considerable regional variation
- Variation is mostly at lexical level
- BSL dialects developed differently to spoken language dialects, e.g. school-lects
- Recent studies have shown that there is evidence of dialect levelling in BSL
- So….

For example,



Schembri et al. (2011)

Methodology: Data collection

AIM: To engage two people from **different** regions in spontaneous conversation whilst controlling for the terms they use

- At least 6 participants recruited in each region
- Each paired with the same confederate
- Confederate is a deaf native BSL signer from Bristol
- 25 pairs altogether

DiapixUK task

(Baker & Hazan, 2011; Van Engen et al., 2010)

Dialect contact experiment

- Pre-task eliciting 40 lexical items
  (including target signs from Diapix task)

- DiapixUK task
  - Beach scene
  - Farm scene
  - Street scene

- Dialect comprehension task
- Post-task interview

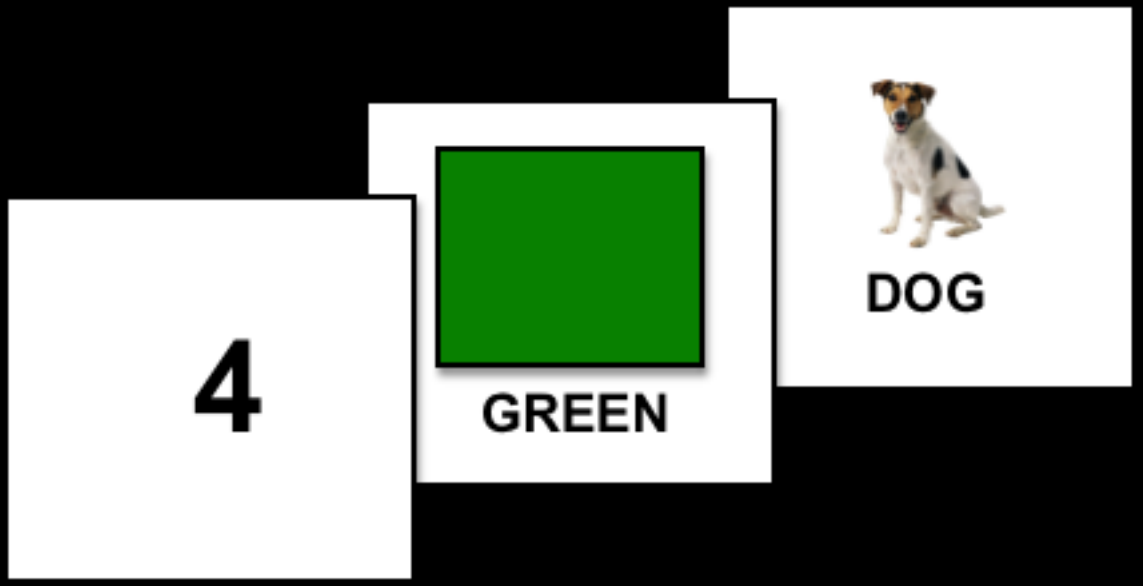
Lexical elicitation task

- 40 items
- 12 target concepts (same as Diapix)
- (+ 6 additional concepts for dialect comp)
- 22 distracters

- Target signs:

<u>Numbers</u>
- FOUR
- NINE
- SIX
- TEN
- TWELVE
- SEVENTEEN
- EIGHTEEN

<u>Colours</u>
- BROWN
- GREEN
- GREY
- PURPLE
- YELLOW



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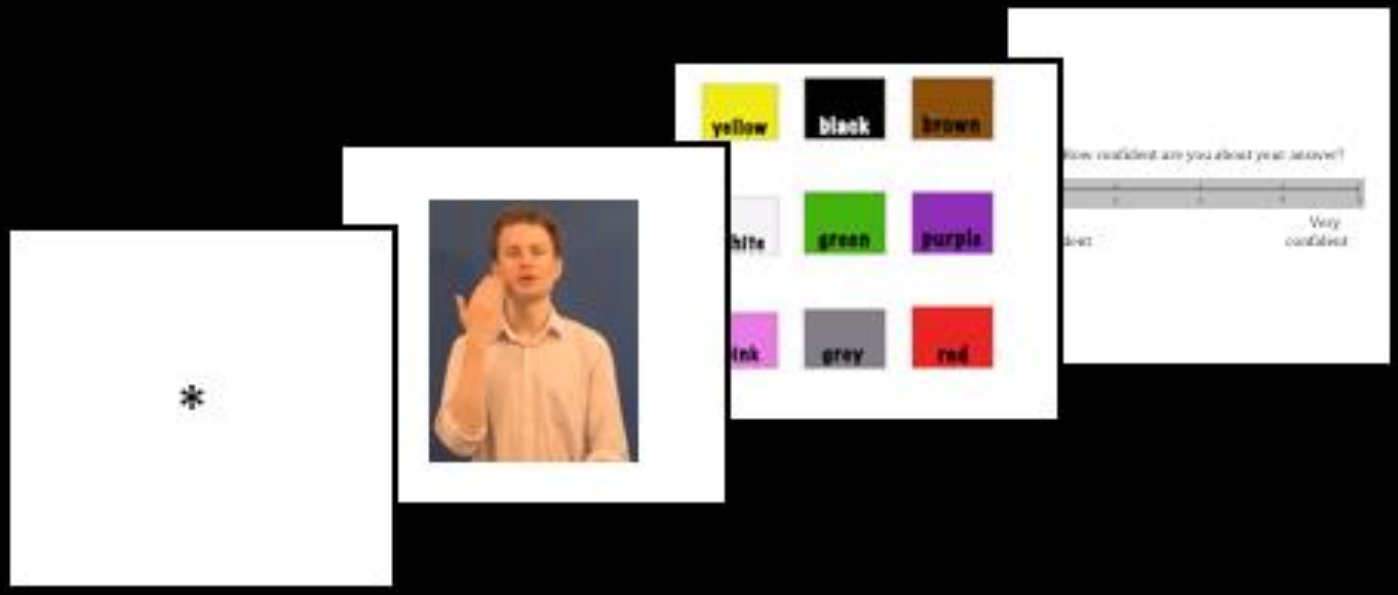
Example of the Diapix task

- Brown (beehive)
- Green (shorts)
- Grey (towel)
- Purple (towel)
- Yellow (jumper)

- 4/9 (pears)
- 6 (birds)
- 10 (pins)
- 12 (points)
- 17 (points)

Dialect comprehension task



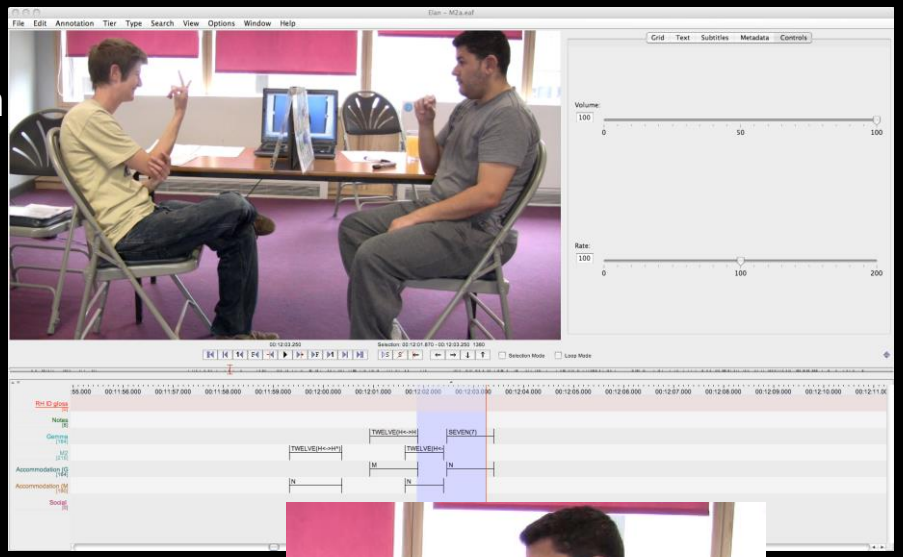
Accommodation study: Coding

All **regionally-variable** signs were coded with following information:

Dependent Variable:

- Accommodation or not

1. Region (BF, GW, MC, NC)
2. Age (cont.)
3. Gender (male or female)
4. Social class (working or middle)
5. Language background (parents Deaf or hearing)
6. School location (local or non-local school)
7. Semantic category (number or colour)
8. Mobility (high or low)
9. Familiarity rating (0, 1, 2, 3)
10. Engagement rating (1-10)



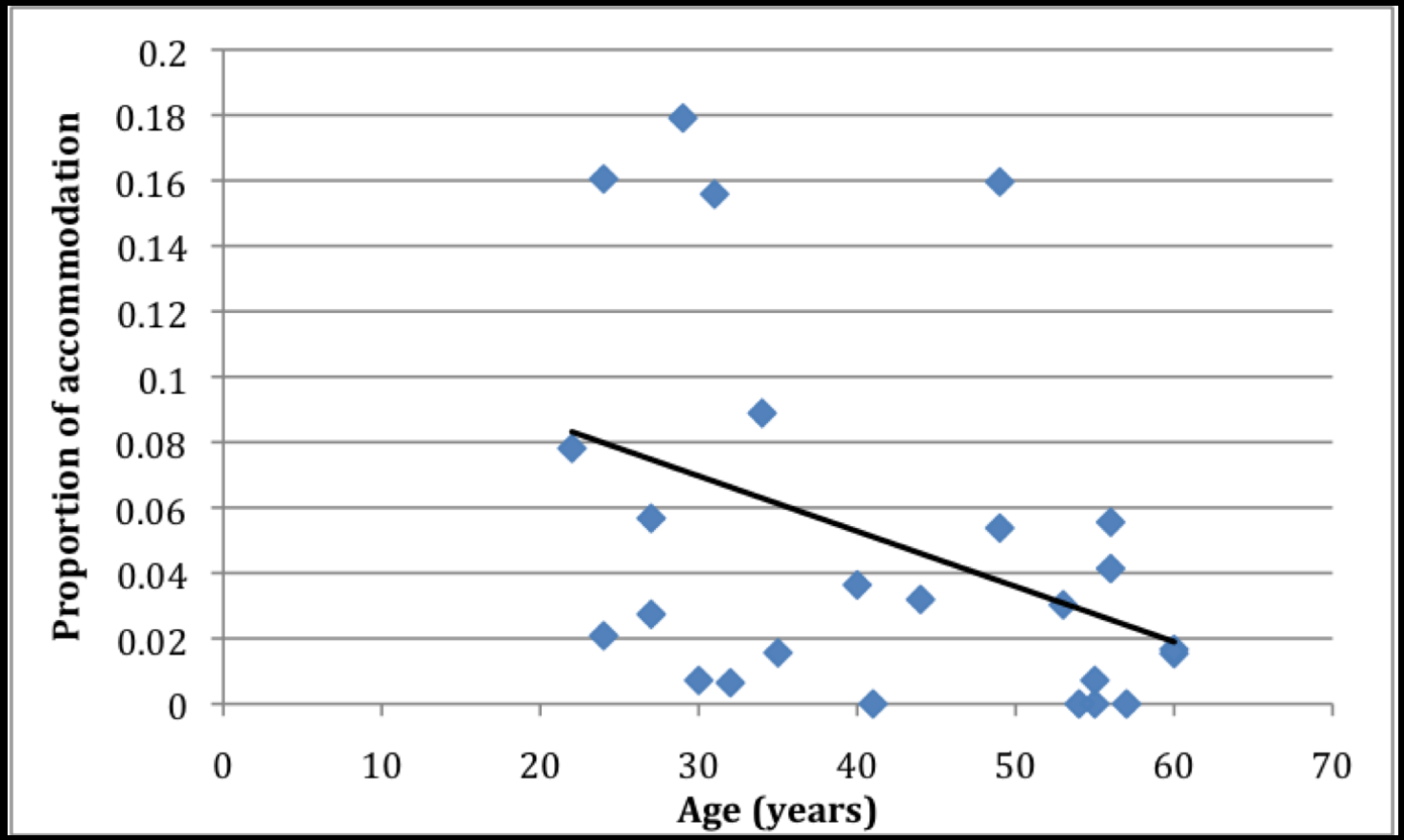
Diapix task: Summary

- No problems with communication
- Instances of misunderstandings resolved by mouthing & other communication strategies

Participants

- 0.049 (119 tokens), 5% convergent
- 10% divergent
- Range 0-18%

Age & accommodation proportion



Possible interpretations

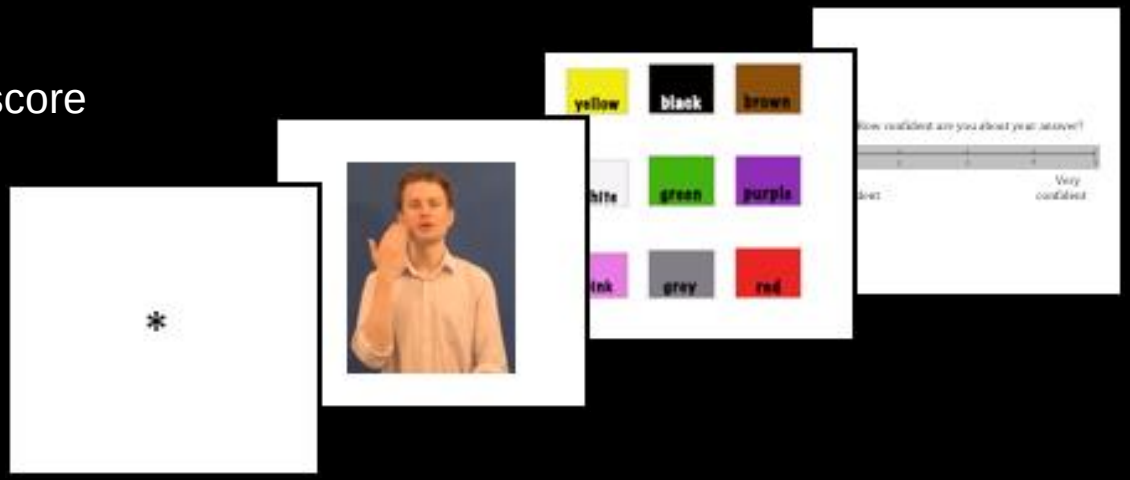
- Sign language perception & production systems not linked in the same way as spoken languages
- Identity-marker:
  - Dialects viewed as ‘school-lects’
  - Lack of hierarchical community
  - No prestige across regions
- Communicational efficiency not an issue
- Methodological issue?

Dialect comprehension: Coding

48 trials x 3 blocks = accuracy score

<u>Dependent Variable:</u>

- Accurate or not

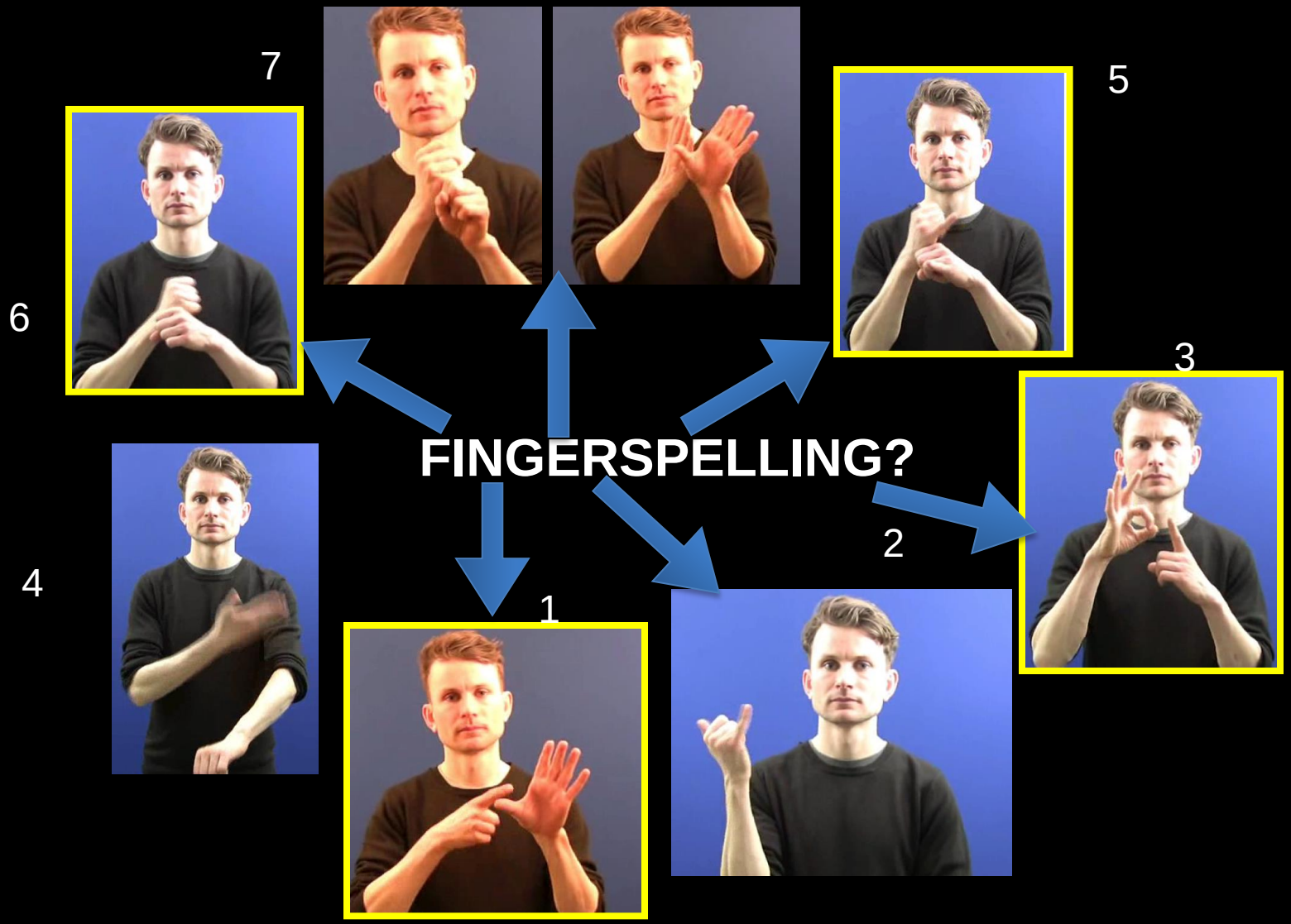


1. Region (BF, GW, MC, NC)
2. Age (cont.)
3. Gender (male or female)
4. Social class (working or middle)
5. Language background (parents Deaf or hearing)
6. School location (local or non-local school)
7. Mobility (high or low)
8. Regional origin of sign (BF, BL, BM, CF, GW, L, M, N)
9. Block (1, 2, 3)

Dialect comprehension differences

- 21-50% correct, 35% average
- Significant sign region & signer’s region interaction

Easily understood sign variants?



Conclusions

- Lexical accommodation is minimal
- Accommodative behaviour is socially conditioned
- Signers from Glasgow and Manchester, younger signers accommodate more
- Comprehension is high within conversation
- Comprehension is low without context or mouthing
- Regional variants appear to be disambiguated with mouthing
- Signers with deaf parents perform more accurately
- Birmingham and London varieties are most easily understood

Future areas of research

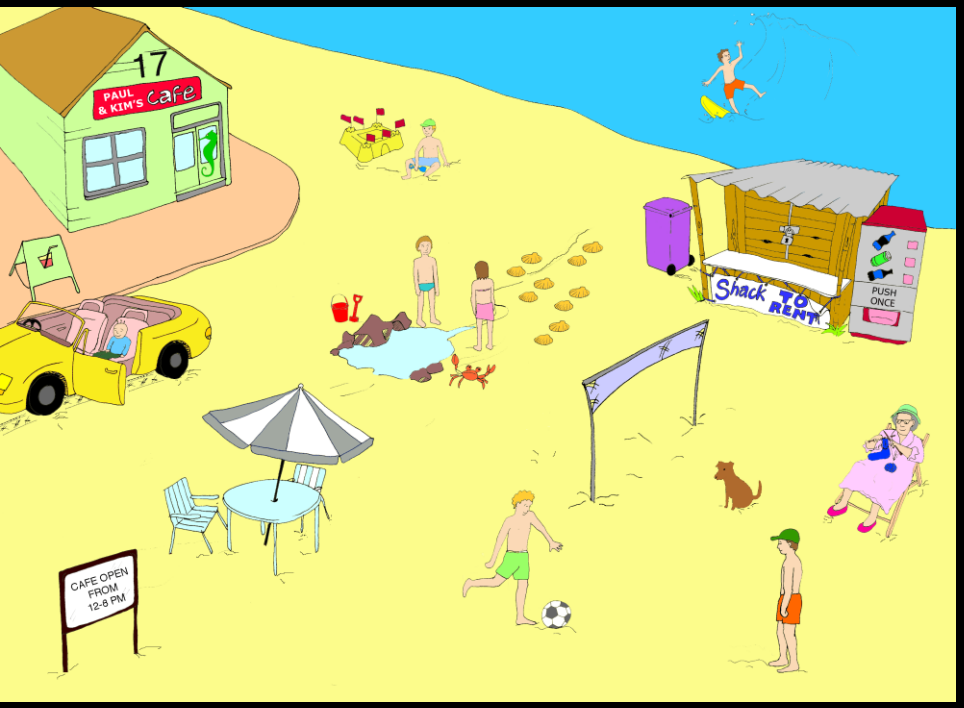
- Are BSL regional varieties viewed as dialects or school-lects?
- Do modality differences influence whether accommodation is exhibited in signed languages?
- Do regional varieties in BSL hold any prestige or status?

Contacts & websites

- Rose Stamp r.stamp@ucl.ac.uk
- Kearsy Cormier k.cormier@ucl.ac.uk
- Adam Schembri a.schembri@ucl.ac.uk

- Project website
  - www.bslcorpusproject.org

Diapix task: 1

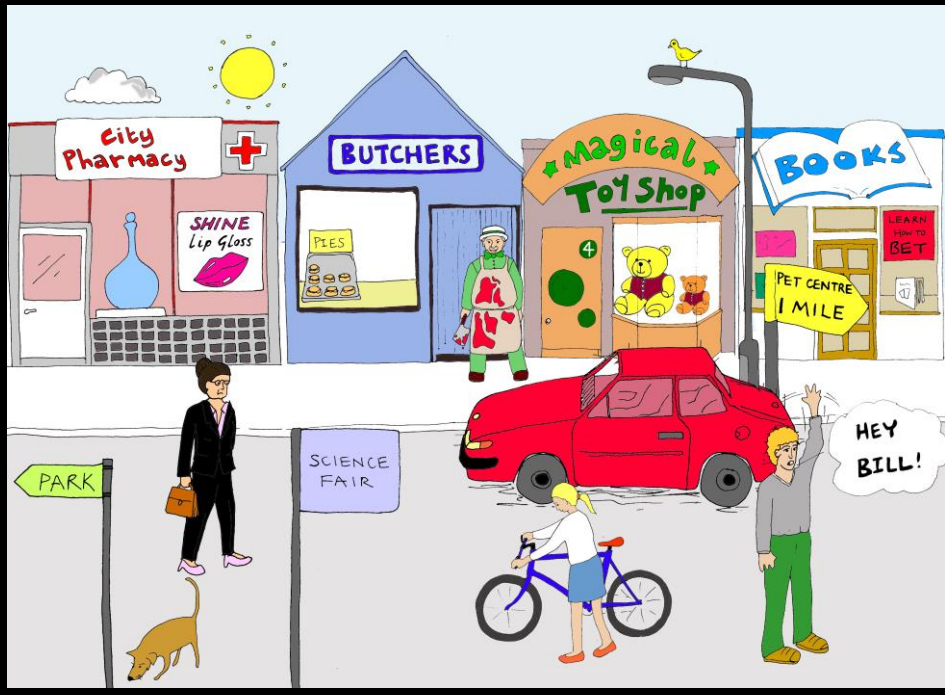


- Brown dog
- Green seahorse
- Grey umbrella
- Purple bin
- Yellow car

- 4/9 windows
- 6 flags
- 10 shells
- 12-8pm
- 17 Cafe

Diapix task: 3

- Brown trousers
- Green bike
- Grey Butcher's shop
- Purple car
- Yellow vase



- 4/9 toy shop
- 6 birds
- 10 bookshop
- 12 pies
- 17 miles

Contact

Adam Schembri

National Institute for Deaf Studies and Sign Language, La Trobe University, Melbourne, VIC, 3086, Australia

a.schembri@latrobe.edu.au