

ESRC Deafness Cognition and Language Research Centre

The role of animacy in the acquisition of entity constructions in British Sign Language

Kearsy Cormier
Deafness Cognition and Language Research Centre,
University College London, k.cormier@ucl.ac.uk

Sandra Smith
Centre for Deaf Studies, University of Bristol, Sandra.D.Smith@bristol.ac.uk

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Introduction

- ◆ Different ways of expressing action in sign languages, e.g. British Sign Language (BSL)
 - ◆ Entity "classifier" constructions (CL)
 - ◆ Constructed action (CA)
 - ◆ Other (lexical verb signs: e.g. WALK, GO, DRIVE, etc)

Entity constructions: Hand as referent

- Whole entity (classifier) constructions: the hand represents an entire referent
- Signer uses his/her hands to represent the location and/or motion of the person/character(s)
- "Out" of the story space, in signing space in front of signer, small-scale
- Uses observer perspective: Events are told from perspective of narrator observing scene from outside
- Cf. observer viewpoint (O-VPT) gestures in non-signers (McNeill 1992)

Whole entity construction showing person location

Constructed action: Body as referent

- Constructed action (aka role shift)
 - Signer uses his/her head, face and body to describe what a person/character does, thinks or feels
- "In" the story space, large-scale, real-world space
- Uses character perspective: Events are told from perspective of person/character in the story
- Cf. character viewpoint (C-VPT) gestures in non-signers (McNeill 1992)

Constructed action depicting a) a bear which is about to attack a person, and b) the person who is about to be attacked pretending to be dead

Use of hand as referent and body as referent

- Both types of constructions can be used separately or together (Dudis 2004)
- Signed narratives typically include these different constructions/perspectives
- Fluent adult signers are able to switch fluidly and clearly between the different perspectives

Entity classifier depicting approach of a bear, with constructed action as person being attacked

Acquisition of entity constructions and constructed action in sign languages

- ◆ Begins at about 2-3 years of age with protracted course of development (Schick 1987, Supalla 1982, Loew 1984, Newport & Meier 1985, Reilly 2000, Lindert 2001, Morgan 2002, 2006, Slobin et al. 2003)
- ◆ Previous research
 - ◆ Whole entity classifier handshapes depicting people and vehicles may be amongst the earliest acquired (Kantor 1980, Supalla 1986, de Beuzeville 2006)
 - ◆ Focus mostly on deaf native signing children
 - ◆ Very few look at age of acquisition effects or effects due to language experience (one example - Galvan 1989 for classifier constructions)
 - ◆ Majority of deaf children (≥95%) as non-native signers (Mitchell & Karchmer 2004)

Acquisition of C-VPT & O-VPT gestures

- Character viewpoint (C-VPT) and observer viewpoint (O-VPT) gestures
 - Occur early in childhood (e.g. 2.5 years in hearing children)
 - Character perspective far more frequent than observer perspective (McNeill 1992)

Research questions

- How do deaf children with different degrees of experience with BSL depict location/motion of animate vs. inanimate referents?
 - Hand as referent? (expected)
 - Body as referent? (possible?)
- How do such productions compare with adult Deaf native BSL signers?
- How similar are productions across groups?

Participants

	N	Age	Family background	BSL experience (school)	BSL experience (overall)
Adults-BSL	5	>18	Deaf family	Various	Native signers
DD-BSL	5	6	Deaf family	Bilingual school using BSL	Native signers
DH-BSL	5	6	Hearing family	Bilingual school using BSL	Early learners
DH-oral	5	6	Hearing family	School using Total communication or oral method	Minimal BSL

Video stimulus materials

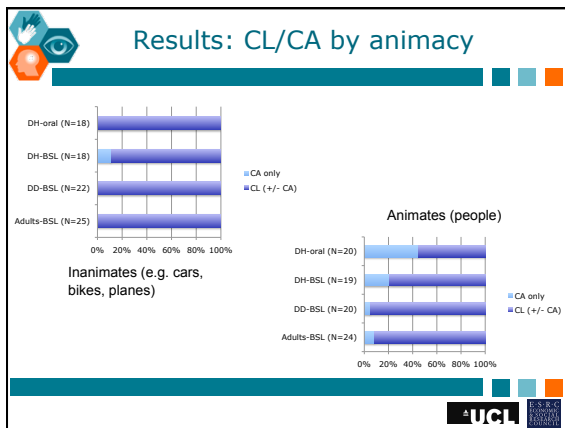
Inanimate entities moving (car, bike, tree, plane)

Animate entities moving (people)

Coding

- CL: Hand as referent (+/- body)**
 - Hand(s) represent the location/motion of a whole entity within observer perspective
 - Essential properties of whole entity classifier constructions in signed languages, also O-VPT gestures in non-signers
 - May occur with or without 'body as referent' (constructed action) simultaneously/sequentially
- CA: Body as referent**
 - Use of one or more manual/non-manual articulators to enact the actual (or perceived) actions, utterances, thoughts or feelings of a referent within character perspective
 - Essential properties of constructed action in signed languages, also C-VPT gestures in non-signers

Coding in ELAN

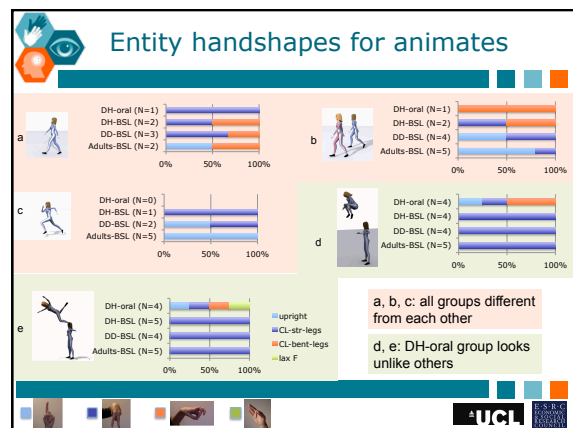
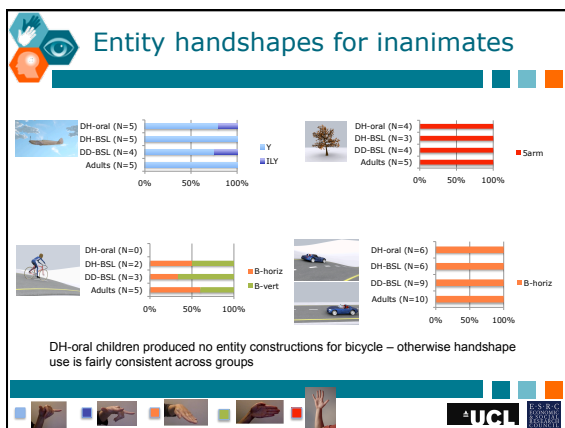
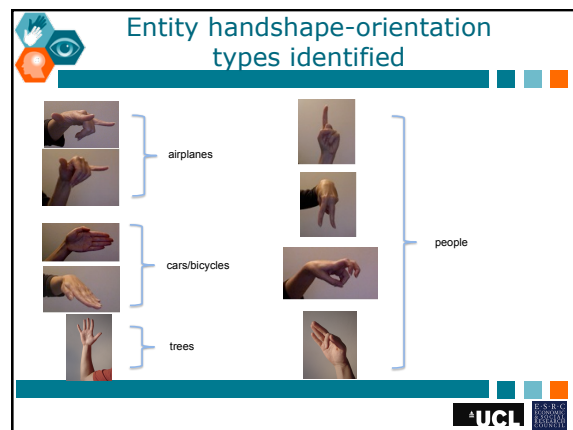


Discussion: CL/CA by animacy

- ◆ BSL adults & children
 - ◆ Majority usage of "hand as referent" constructions for motion and location of vehicles and people
 - ◆ Cf. Entity handshapes acquired earliest in deaf native signing children may be vehicles and people (Kantor 1980, Supalla 1986, de Beuzeville 2006)
- ◆ Oral children
 - ◆ Only ~50% use of "hand as referent" constructions for depicting people could be due to competing option of using constructed action ("body as referent") instead
 - ◆ Cf. Character viewpoint & observer viewpoint gestures reported as early as age 2.5 in hearing non-signing children, though character viewpoint much more frequent (McNeill 1992)


Coding for entity handshapes

- ◆ Where CLs were used, how similar were productions across groups?
 - ◆ Use of handshape coding system from Eccarius & Brentari (2008)
 - ◆ Grouped handshapes into categories based on selected fingers, joint usage (and in some cases, orientation)
 - ◆ If more than one CL was produced, the one of longest duration was chosen for analysis



Example

- Some participants (including native signers) struggled with handshapes for animates



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Discussion & conclusion

- Less variation in handshape across groups for inanimate entities
 - Oral children using BSL?
 - Handshapes depicting non-animate entities as non-linguistic?
 - More likely: Similarity across groups reflects common gestural origins of entity constructions and observer viewpoint gestures (both types: "hand as referent")
- More variation in handshape across groups for people
 - Where all groups differ: could be differences in choice of salient features of referent/event expressed (legs vs uprightness)
 - Where DH-oral differ from others: this may reflect conventionalised entity handshape system of BSL
- Analysis of more data is needed

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<http://www.dcal.ucl.ac.uk/Research/assoc1.html>
- Thank you!!

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Next steps

- In progress
 - More comparison of form and meaning of entity constructions and constructed action across groups
 - Elicited typical vs. atypical entity constructions (e.g. running cars, walking trees)
 - Elicited narrative data
 - Reference tracking in the narratives with entity constructions and constructed action and discourse cohesion overall
 - Comparison with children when they are older
 - Longitudinal data: from same children at ages 8-9 and again at 10-11
- For future
 - Entity constructions and constructed action and reference tracking in:
 - non-signers (adults and children)
 - L2 learners of sign language

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