Many languages at hand – the study of sign multilingualism

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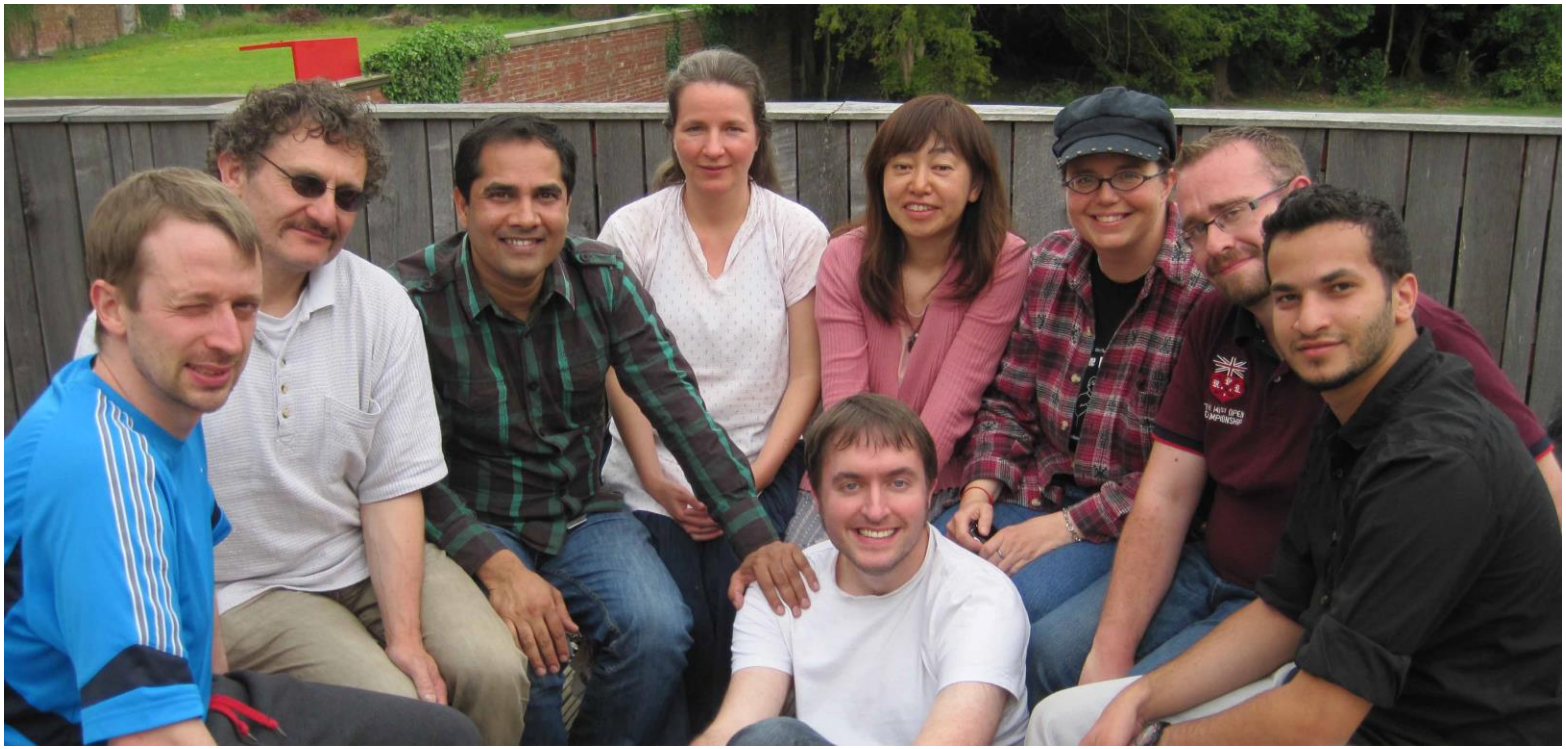

UK UK India Germany UK Japan USA UK Jordan

"Academic excellence and community empowerment"

Topics of the presentation

- “Cross-signing” – transnational sign language contact (Jordan – Japan – Indonesia – UK)
- “Sign-switching” – sign bilinguals (Burundi – India and Germany-Turkey)

“Cross-signing”: Transnational sign language contact

“Multilingual behaviours in sign language users” (ERC project)

Contact between signed and spoken language

“bimodal bi-/multilingualism”

Simultaneous Communication

interpreting

Contact between two or more signed languages

“unimodal bi-/multilingualism”

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→ “Cross-signing”

The cross-signing study

A study of language contact between pairs of signers from different linguistic backgrounds who do not have a shared language between them

Video recordings of dyadic conversations at regular intervals:

- First day
- One week
- One month

Linguistic background of participants

	Fluent	Intermediate	Minimal
CP (female)	British Sign Language, English (written), International Sign		Jordanian Sign Language
MS (male)	Jordanian Sign Language	Arabic (written)	English (written), British Sign Language
HM (male)	Japanese Sign Language, Japanese (written)		English (written)
MI (male)	Indonesian Sign Language	Bahasa Indonesia (written)	English (written)

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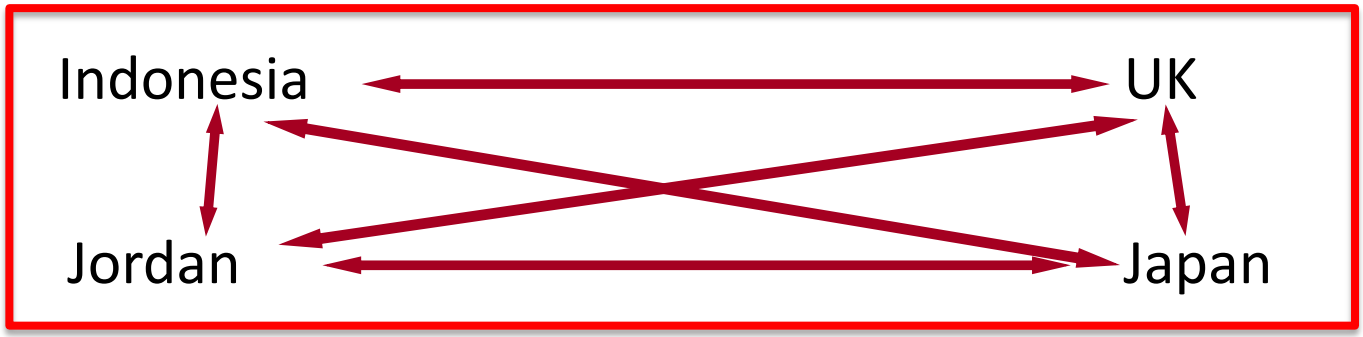
“Cross-signing” data

b) Casual conversation and experimental data from multiply matched dyads (2012):



Conversation (15 hrs of video)

- First contact
- After one week
- After one month

Experiment (2 hrs of video)

- First contact

- After one month

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Conversational data (first contact)

Participant pair	Date of recording	Length of recording (hr:min:sec)	Amount of data annotated (min:sec)
HM-CP	31 May 2012	0:38:26	20:23
HM-MI	06 June 2012	0:44:20	21:44
CP-MS	06 June 2012	0:51:14	20:49
MI-MS	07 June 2012	0:42:37	29:26
HM-MS	07 June 2012	0:56:13	28:08
MI-CP	08 June 2012	0:48:59	17:18
Total data		4:41:49	2:17:48

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	one to nine					10+					
	1h digits	2h digits	Lexical	Incorp	Trace	2h digits	1h digital	2h digital	Lexical	Incorp	Trace
CP total	**68**	**25**	**1**	**26**	**0**	**9**	**11**	**6**	**2**	**0**	**0**
CP-MH	39	12	1	13	0	1	5	2	1	0	0
CP-MS	12	5	0	6	0	2	1	3	0	0	0
CP-MI	17	8	0	7	0	6	5	1	1	0	0
MH total	**94**	**40**	**9**	**24**	**0**	**18**	**10**	**40**	**3**	**1**	**0**
MH-CP	28	11	2	9	0	0	2	10	0	1	0
MH-MS	50	25	5	7	0	14	7	20	3	0	0
MH-MI	16	4	2	8	0	4	1	10	0	0	0
MI total	**72**	**25**	**5**	**22**	**0**	**8**	**6**	**13**	**1**	**0**	**0**
MI-MS	28	12	0	1	0	3	5	1	0	0	0
MI-MH	22	3	4	10	0	0	0	11	0	0	0
MI-CP	22	10	1	11	0	5	1	1	1	0	0
MS total	**93**	**50**	**0**	**7**	**0**	**26**	**20**	**10**	**0**	**0**	**2**
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Conversational “IAP” sequences:

INTRODUCE - ACCOMMODATE - PERSIST

Video example: Jordan-UK

I-A-P sequence

Signer	Relevant part of utterance	IAP-sequence
CP	FOUR INDEX:four points	I
MS	FOUR DAY DAY-AND-NIGHT	I’
CP	FOUR+MONTH(a)	I’
CP	FOUR MONTH(b)	I’
CP	INDEX:down J-U-N-E INDEX:down	
CP	INDEX:four fingers	I’
MS	FOUR MONTH(c)	I’
CP	FOUR MONTH(c)	A
MS	NEXT NEXT FOUR MONTH(c)	P

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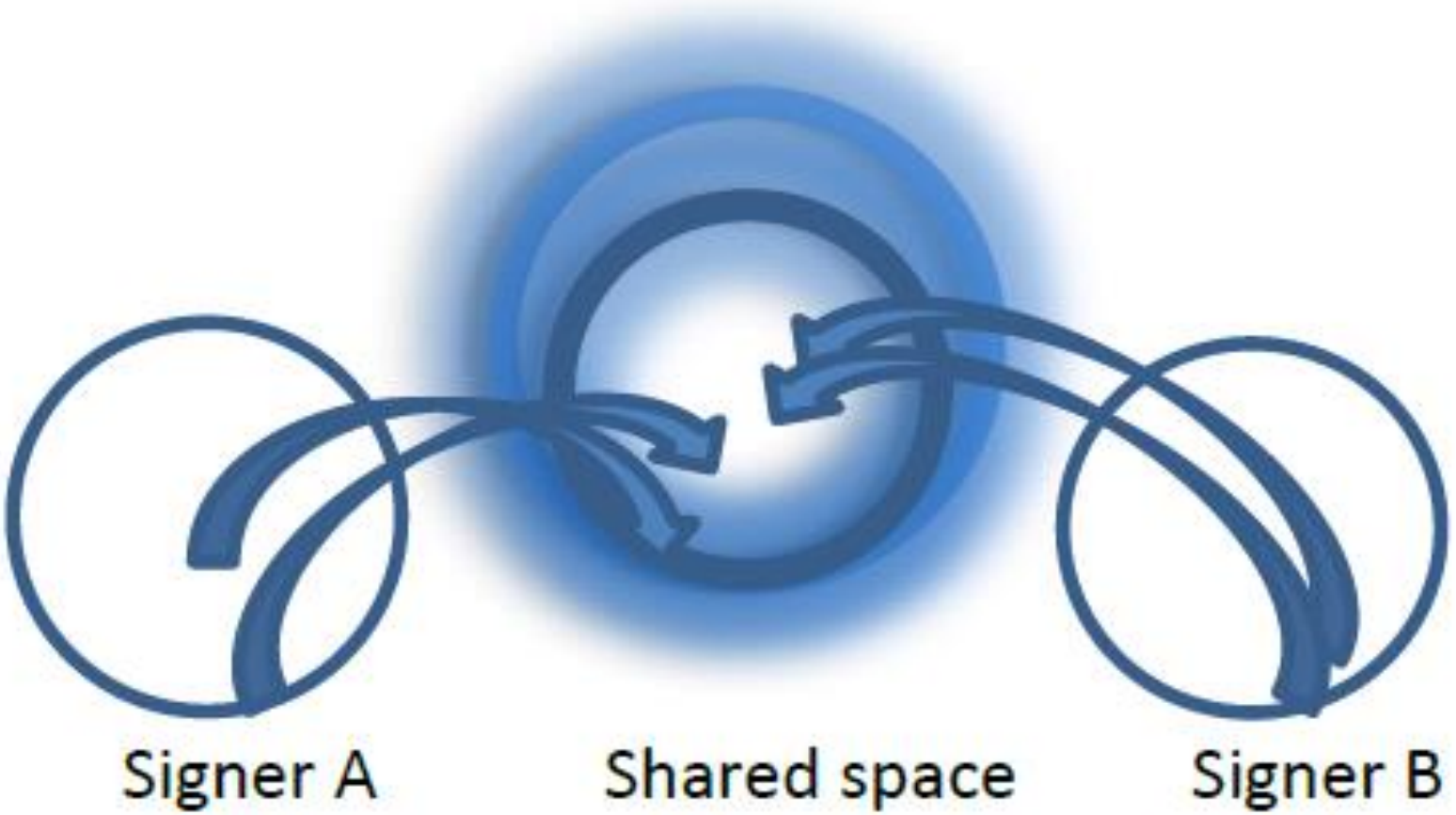
The multilingual-multimodal space



“Sign-switching” in sign bilinguals

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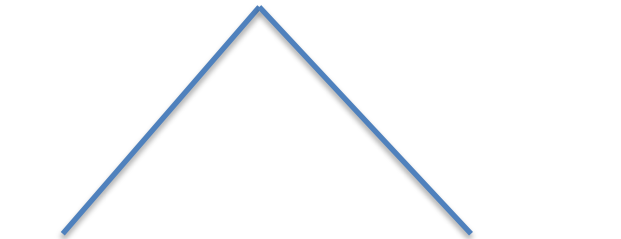

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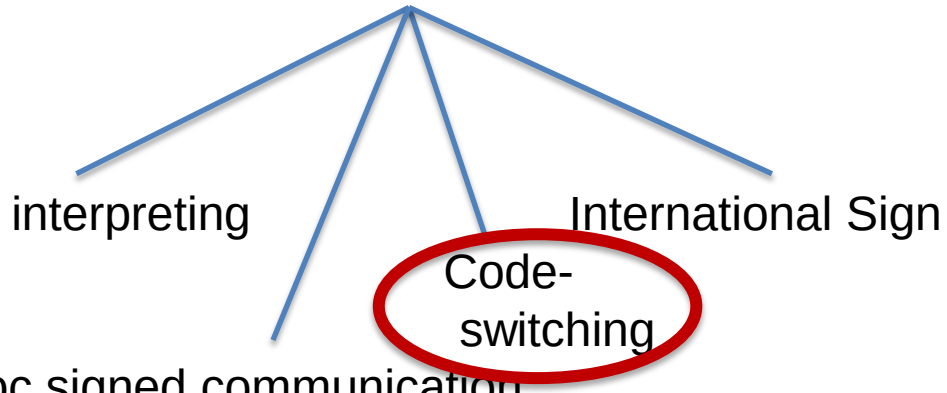

The “sign-switching” study: Burundi-India

WK
in India 1 yr

SN
in India 1yr

CN
in India 3 yrs

AB
in India 2 yrs

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Video example: Text by CN

Negation and WH-questions

- BuSL and ISL share several negative signs; negative clauses have similar structure with clause-final negators
- BuSL and ISL have very different WH-question signs: Compounds with a general WH-sign in ISL, monomorphemic WH-signs in BuSL, which are loans from ASL

Negative signs common to BuSL and ISL

S:NONE (linear outward or circular movement)

S:NO (one-handed or two-handed)

S:DON'T

S:N-O (single or repeated)

S:DON'T-KNOW

Lexical choice in sample text segments: All signs

Participant	*All tokens*	*BuSL tokens*	*ISL tokens*	*S tokens*
AB	281	61 21.7%	77 27.4%	143 50.9%
SN	235	84 35.7%	49 20.8%	102 43.4%
CN	137	50 36.5%	31 22.6%	56 40.9%
Total	653	195	157	301

Tokens, i.e. how many signs in total.

Participant	All types	BuSL types	ISL types	S types
AB	140	37 26.4%	42 30%	61 43.6%
SN	104	32 30.8%	26 25%	46 44.2%
CN	81	25 30.9%	19 23.5%	37 45.6%
Total	325	94	87	144

Types, i.e. how many different kinds of signs

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Lexical choice: Negators and WH-signs

B:NEVER	2	2.10%
B:NOT	8	8.20%
I:CANNOT	2	2.10%
I:NOT	9	9.30%
S:DON'T-KNOW	11	11.30%
S:DON'T	3	3.10%
S:NO/NOT-AT-ALL	15	15.50%
S:N-O	11	11.30%
S:NONE/NOTHING	36	37.10%
Total	97	100.00%

B:HOW	6	12.80%
B:WHAT	2	4.30%
B:WHERE	3	6.40%
B:WHY	13	27.70%
I:WH	18	38.20%
S:WHO	5	10.60%
Total	47	100.00%

Examples of reiterative code-switching

INDEX++ S:SOLVE I:DIFFICULT+ B:DIFFCULT

B:FATHER B:MONEY I:MONEY B:MONEY S:THERE I:PLUS I:ADD-UP-TOTAL S:OK S:AGREE

B:HOLIDAY I:HOLIDAY S:IX1 S:FLY S:NO

This occurs regularly with lexical signs but not with grammatical signs such as negators and WH-signs.

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Findings: Characteristics of a shared bilingual variety

- Similar proportions of BuSL, ISL and S type signs for all three signers
- Considerable use of the available pool of shared signs that exist in both sign languages
- Strong preference for shared (S) negators
- No ISL compound WH-signs
- Negator and WH-signs from BuSL and ISL follow grammatical patterns of BuSL and ISL

Further research

Cross-signing:

- Lexicon development and stabilisation over time (in the domain of persons and animals)

Sign-switching:

- Development of stable bilingual variety (“community of practice”) - Comparison between Burundi-Indian and German-Turkish sign bilinguals

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