

KWIC view on Constructed Action (CA) and its Collocates in German Sign Language (DGS) – Possibilities and Limitations

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Background

• **Constructed Action (CA)** = Constructions depicting the actions, behaviour, thoughts and utterances of referents (Cormier et al. 2015; Fischer & Kollien 2010)

• **Keyword in context (KWIC)** = Shows a specific keyword and its preceding and/ or following tokens
• Useful tool to analyse collocational behaviour in SpL lexicography

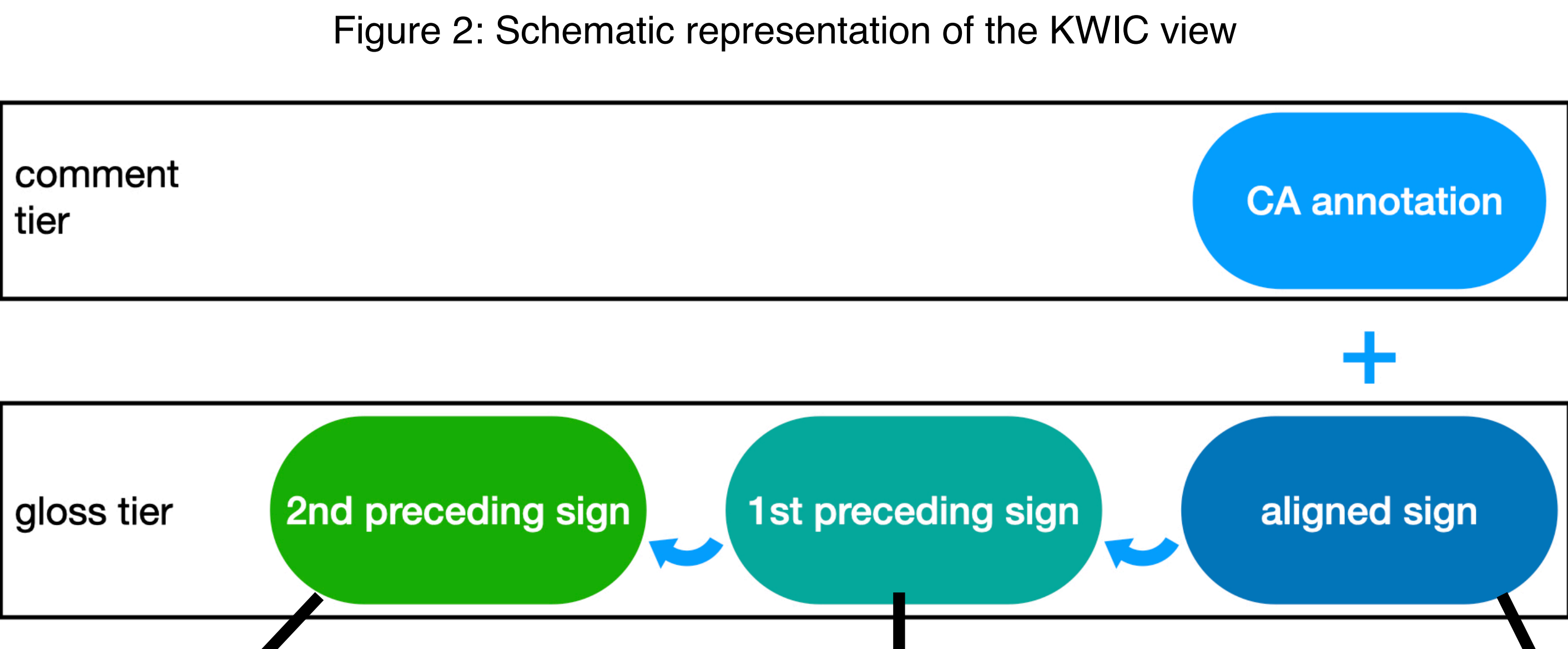
Research Questions

- What **insights** can be gained **about CA** by using a KWIC view for analysis?
- **How useful** is such a view of the data and where are its **limitations**?

Figure 1: KWIC view

ca_tc_start	value	il_3	il_2	il_1	type	mundbild	mb_string
11:47:57:23	CD	MUCH1A	TO-MAKE-UP-FOR-STH1	TO-SIGN1D	\$GEST^		
13:42:08:17	CA	TO-DRIBBLE-WITH-FOOT1^	\$GEST-TO-PONDER2^	\$PROD	\$GEST^	[MG]	[MG]
13:43:28:05	CA	\$PROD	HEARING1A	COACH1	\$GEST^	[MG]	[MG]
12:45:46:21	CD	\$INDEX1	HOW-QUESTION2	\$INDEX1	\$GEST^	[MG]	[MG],[MG],[MG]<
12:45:50:36	Kopf.	TO-SPEAK6*	\$INDEX1	TO-HEAR1	\$GEST^		>ja
12:37:27:49	CA	MEASURE-VERTICAL2A^	\$GEST^	GAP1	\$GEST^		>[MG]
13:16:26:18	√CA	YEAR2A	DEAF-INTS1	TO-LET-GO2	\$GEST^		
12:38:35:35	√CA	\$INDEX1	I1	COMMUNICATION1A	\$GEST^	[MG]	[MG]
13:08:03:46	CA	WITHOUT1B	DOG4*	\$GEST-NM-TO-SHRUG1^	\$GEST^	[MG]	[MG]
11:42:31:33	√CD.	TO-SEE-EACH-OTHER1^	\$INDEX1	I1*	\$GEST^		>deaf

Annotations: preceding signs (blue arrow), sign aligned to CA annotation (red arrow)



Data

- **Free conversations** in the **Public DGS Corpus** (Konrad et al. 2020)
- Includes annotations for glosses, mouthing, translation
- Glosses such as \$PROD, \$GEST used for CA
- Comment tier: **supplementary annotation** e.g. comment **CA** (not obligatory)

Method

SQL query showing:

- Aligned signs to CA and up to 3 preceding signs (see Figure 1)
- Columns can be sorted alphabetically → analysis of clusters
- **486 occurrences** of CA comments in Free conversations

2nd preceding sign

- Pattern for Constructed Dialogue (CD)
- 14 occurrences → further analysis for confirmation needed

[sign denoting person] →
[sign denoting communication] →
CD

Examples



1st preceding sign

Table 1: Top 5 signs immediately preceding CA annotations

Sign immediately preceding the CA comment	Number of Tokens
I1/ I2	75
\$GEST	41
\$INDEX	41
\$PROD	37
signs denoting persons	29

Examples:



- I1/ I2 and signs denoting persons are often used immediately before a CA

Aligned sign

Table 2: Top 5 signs aligning with CA annotations

Sign aligned to CA comment	Number of Tokens
\$GEST	91
\$PROD	71
I1/ I2	39
\$INDEX	39
TO-LOOK	34

Examples:



- \$PROD and \$GEST predominantly used with CA
- Signs for TO-LOOK often used aligned with CA

Frequency in the DGS corpus

Table 3: High Frequency signs in the DGS Corpus (as of 18.02.26)

Gloss	Number of Tokens
1 \$INDEX	44,304
2 I1	37,181
3 \$GEST-OFF (PUOH)	29,442
4 I2	12,788
5 \$GEST	12,027
6 \$PROD	10,467

- High frequency signs co-occur the most with CA
- Signs for TO-LOOK are less frequent in the corpus compared to the high frequency signs
- \$PROD and \$GEST predominantly used with CA
- 1st preceding signs in general: 19.75% of the 486 occurrences are used to identify the CA's referent

Discussion

Limitations

- Glosses are only an approximation to the actual meaning of the used signs → **further analysis needed** e.g. word-sense disambiguation to determine referents of I1/ I2
- Concordance lines currently **do not show boundaries of clause-like units (CLU)** → for preceding signs it is not possible to determine, whether preceding signs belong to the same CLU as the CA

Possibilities

- Can be used as a **means to explore** collocational patterns
- Can **point to patterns of interest**
- **Useful tool when combined** with other methods