

# Correlation between word order and information structure in Hong Kong Sign Language (HKSL)



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## INTRODUCTION

**Research Question:** Do the word order patterns change in HKSL when the arguments are New versus Old?

- Like many sign languages, HKSL allows **word order alternation** (Sze, 2000; 2021; Gan 2022).
  - LISA BUY CAR (SVO, default)
  - LISA CAR BUY (SOV)
  - CAR LISA BUY (OSV)
- Cross-linguistically, correlation between **information structure and word order alternation** has been attested (Krifka 2008; Kiss 1995; Neeleman and Vermeulen 2012b; Borise 2023, Bobaljik 2022, 2023, a.o.).

## DATA CODING PROCEDURE

- Data:** A collection of naturalistic monologue clips by 2 Deaf L1 signers; 30 minutes in total.

Topic (199)	THAT TIME	DC-1
Topic type (199)	topic (scene-setting)	topic
Syntactic Unit (199)	THAT TIME, SIGN-LANGUAGE TRANSLATE IK-1 CONSIDER NOT-HAVE	
Free Translation, SU (1)	'At that time, I didn't think about sign language interpretation	
Word order, SU (199)	THAT TIME, SL TRANSLATE IK-1 THINK NOT-HAVE	
Argument level	SL INTERPRETATION	DC-1
Argument type (199)	N	IX
WO_arg(general) (199)	OSV	OSV
Oldnew_arg (199)	O-new	S-old
CI final Constituent POS		
CI final word (199)		
CI final information type		
	Aux	
	NOT-HAVE	
	negation	

### STEP 1. Identify relevant Syntactic Unit (SU)

- Adopt the *ASL MLU coding guide (20190201 version)* to use evidence from syntax, semantics and prosody of the sentences.
  - Exclude:** Interrogatives; Question-Answer Pairs
  - Count as one SU:** Embedded sentence; indirect report with role shift (except if action role shift is used for a separate sentence)
  - Count as separate SUs:** Clauses in coordination
  - Double checked by a Deaf L1 RA.

### STEP 2. Identify arguments in each SU

- Include:** Nominal arguments and IX pronouns
- Exclude:** Covert arguments; arguments incorporated in classifiers (Sze 2000); double object constructions
- Predicates:** transitive verbs; intransitive verbs (include adjective predicates and nominal predicates)

### STEP 3. Annotate the word order of each argument

### STEP 4. Annotate information structure status of the arguments

- Adopt the criteria in Bobaljik (2022, 2023)
  - New:** Referent not previously introduced in discourse.
  - Old:** Referent previously mentioned in discourse; 1st and 2nd person pronouns (when not explicitly contrastive); Quoted clauses are treated as distinct discourse from the main narrative.
  - Contrastive:** An explicit contrast is observed between referents relative to some action.

### REFINEMENT 1: Mark sentence topics

- Step 1. Exclude topic-less sentences
  - identificational; predication; event-reporting (Lambrecht 1994)
- Step 2. Identify *Scene-setting topic* & *Aboutness topic* (adapt the combination of Sze 2008: 63; Kimmelman 2014: 46; and Calderone 2020: 221)

### REFINEMENT 2: Annotate information structure type of clause-final constituents

- new; old; emphatic; negation; functional

## RESULTS

### SUMMARY

- The clause-final position is associated with new information.
- Subjects are prevalently pre-verbal;
- Both new and old objects can be preverbal or postverbal;
- Properties of verbs and information structure status of the arguments (new/old, topic) affect the word order alternations;

The clause-final constituents prevalently convey new information, suggesting that the clause-final position in HKSL is somehow associated with new information.

Various of factors affect the word order together (New/old argument, Topic-hood, verb types)

Subjects are prevalently pre-verbal (SV) regardless of the topic-hood & being New/Old.

### Objects

- Topic objects: most are OV
- Non-topic objects:
  - O<sub>new</sub> prefers OV;
  - O<sub>old</sub> prefer VO;
- With non-final verbs that do not enforce OV order, both O<sub>new</sub> and O<sub>old</sub> prefer VO, suggesting that HKSL may prefer to utilize the default SVO order when possible.

	new	old	emphatic	negation	functional	Total
Adjective	46	5	2	1		54
Adverb	11	1	1	8		21
Aspect					3	3
Auxiliary	1			5	2	8
Gesture			1			10
IX		45	10			55
Modal			3	2	15	20
Noun	10	1				11
Numeral	5					5
Particle					9	9
Verb (CL)	17	2				19
Verb (lexical)	65	3	5	13		86
Wh-element					2	2
Total	155	57	22	29	40	303

Table 1: Part of Speech and information structure status of clause-final constituents

Pattern	Non-topic		Topic		Total
	New	Old	New	Old	
SV	79	41	3	100	223
VS	0	0	0	5	5
S doubling	1	7	1	10	19
Total	80	48	4	115	247

Table 2: Word order patterns of subjects with new/old information

Pattern	Non-topic		Topic		Total
	New	Old	New	Old	
OV	38	23	3	13	77
VO	23	34	1	2	60
V doubling	2	4	0	0	6
Total	63	61	4	15	143

Table 3: Word order patterns of objects with new/old information

Pattern	Non-final Verbs		Final Verbs		Total
	New	Old	New	Old	
OV	18	14	20	9	61
VO	21	31	2	3	57
V doubling	2	1	0	3	6
Total	41	46	22	15	124

Table 4: Word order patterns of non-objects with different types of verbs

## DISCUSSIONS

- Considering more controlled *elicitation data* and *judgment data*, HKSL displays a preference to **locate focus in the clause-final position**.

Word order	baseline	IO-focus "Who did Gladys give the book to?"	DO-focus What did Gladys give Brenda?
S-DO-V-IO (a) GLADYS BOOK GIVE BRENDA	Good 4	Good 4	Good 3.5
S-V-IO-DO (b) GLADYS GAVE BRENDA BOOK	? 3	* 1.25	Good 3.75

- Further, **locating focus in the clause-final position is related to the prosodic saliency of the sentence** (Gan, in prep; Wilbur 1996, 1997, 2012).

## REFERENCES

- Scan the QR code for full list of bibliography.



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