Form and function in serial verb constructions — insights from German Sign Language

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Background. Serial verb constructions (SVCs) in sign languages are relatively understudied, and discussions of how word order and meaning are entangled therein are crucially lacking. The present study analyzes previously unexamined German Sign Language (DGS) data which suggest that serializing behaviour remains consistent along some dimensions across languages and modalities (c.f. Aikhenvald 2006), but varies along others. The DGS examples below were collected from the publicly available DGS Corpus project.

Serial verbs of motion. Motion events in DGS can be expressed by strings of verbs decomposing path and manner of motion as has been observed in other sign languages (e.g. Supalla 1990, Benedicto et al. 2008), and spoken languages. In (1), the motion event of going for a walk is decomposed into WALK and GO. Similarly, in (2), 'go swimming' is broken up into SWIM and GO.

(1) SUNDAY MUST **WALK GO**
'On Sundays we would go out for a walk'

(2) AGREED **SWIM GO** HEARING_AID TAKE_OUT ANYWAY
'Right, you have to take off your cochlear implant during a swim.'

In (3), we see the event sequence 'flee the scene' decomposed into three verbs, LEAVE, RUN_AWAY and GO.

(3) ALARM LET_KNOW IX_2 ALARM IMMEDIATELY **LEAVE RUN_AWAY GO**
'If the alarm goes off, everybody knows that they have to flee the scene.'

Serial verbs of transfer. Verbs of transfer like TAKE and GIVE can serve unique grammatical functions within SVCs. In (4), TAKE introduces an instrument. TAKE can also share an object with another verb to emphasize the causedness or intentionality of an event, as in (5).

(4) IX_1 **TAKE** IX_1 **WASH_HANDS** HAND
'You could try washing your hands with it.'

(5) IX_1 **TAKE** TIME **SACRIFICE** LIKE
'I have to sacrifice my time.'

Conversely, GIVE can introduce the benefactive in an event, as shown in (6). The benefactive reading is reinforced by the mouthing *für* 'for' over the first-person pronoun.

/für/

(6) IX_3 MOM **BUY** IX_1 CAR $_1$**GIVE**$_3$
'At some point mom bought me a toy car.'

Iconicity and conventionalization. In DGS, the use of serial verbs of transfer exhibits a typologically common asymmetry dependent upon linearity, summarized in the table below.

Verb	V_1	V_2
GIVE	*	Benefactive/recipient introduction.
TAKE	Instrument introduction, event initiation.	—

The data demonstrate the sensitivity of the verbs to iconic order within single-event predication; an outcome should not be "given" to the beneficiary before being performed, and an instrument should not be accessed only after it is used. Thus, both GIVE and TAKE are preferred in argument-introducing contexts as V_2 and V_1 respectively. GIVE is never co-eventive with the following verb due to its telic features, and TAKE only avoids triggering an event boundary as V_2 by shedding its event-initiating interpretation (see Ramchand 2008 for diagnostics). My preliminary analysis thus suggests that temporal iconicity conditions the conventionalization of some high-frequency verbs in verb series, such as verbs of transfer.

Simultaneity and word order. For serial verbs of motion, the picture is more complicated. The order V_{manner} + V_{path} seems to be allowed fairly consistently across sign languages, and is the only

observed order in DGS (note that motion SVCs are distinguished from cases in which GO embeds another verb, where the inverse order *is* attested in DGS, e.g. 'go (in order) to shop' is signed as GO SHOP). Alternative orders for verbs of manner and of path in motion SVCs across sign languages are shown below for comparison (adapted from Benedicto et al. 2008, Lau 2012, Couvee & Pfau 2018); the sampled languages are American Sign Language (ASL), Catalan Sign Language (LSC), Argentinean Sign Language (LSA), Sign Language of the Netherlands (NGT), and Hong Kong Sign Language (HKSL).

Pattern	ASL	LSC	LSA	NGT	HKSL	DGS
V_{manner} + V_{path}	✓	✓	✓	✓	✓	✓
V_{path} + V_{manner}	✓	✓	*	✓	*	*
V_{manner} + V_{path} + V_{manner}	*	✓	✓	?	?	*
V_{path} + V_{manner} + V_{path}	✓	✓	*	?	?	*

Because manner and path are simultaneous properties of a motion event, temporal iconicity has no explanatory power here. Benedicto et al. (2008) attempt to explain the results from ASL, LSC, and LSA in terms of VP-shell structures (complementation, rather than adjunction). They assume that V_{manner} merges in the c-command domain of V_{path}, and reason that while LSC and LSA are head-final and require V-movement operations to derive all the data, ASL, which is head-initial, should derive its unmarked V_{manner} + V_{path} order without head movement, and only requires further movement to derive the more sparsely attested orders.

Complementation vs. Adjunction. The data that I have collected indicate that the same degree of flexibility is not observed in DGS as is in LSC or LSA, despite all of them being broadly head-final languages. The merge of V_{path} over V_{manner} would be sufficient to derive the DGS word order, but assuming that alternative orders are derived via V-movement, syntactic islandhood would better explain why these other orders are not attested. I thus suggest that adjunction-style analyses (à la Veenstra 1996) are more consistent with the DGS data. V_{manner} can naturally be treated as an adverbial adjunct to the main verb, V_{path}. Stereotypical adjunct behaviour matches both the resistance to alternative orders via V-movement, and the idiosyncratization in the order of transfer SVCs. Single events will be correctly interpreted, provided that the necessary event semantic information is recoverable (e.g. uniqueness of thematic relations). Where crosslinguistic similarities in interpretation appear, they stem from typological consistencies in the verbs' lexical semantics and the influence of iconicity, and not from a single universal syntactic structure.

Selected references.

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