# Simultaneity vs Sequentiality: Serial Verb Constructions at the intersection. The case of Agents in Motion Predicates.

Introduction. It has been long claimed that Sign Languages can simultaneously encode a good amount of morphological information that would be impossible in most (sequentially-inclined) Spoken Languages. At the same time, it has also been shown that Sign Languages use the morpho-syntactic device of Seriality (Supalla 1990, Benedicto-Cvejanov-Quer 2008, Lau 2012)), which linearizes verbal morpho-syntactic components sequentially. These two trends seem at odds with each other. Here we examine this tension within an area that seems to offer *optionality* in the realization of syntactic patterns: the transitivization of (intransitive) motion predicates. We will claim that such *optionality* is the by-product of the specific morphemes selected in the Numeration and the particular subeventive structure underlying the predicate.

Goals: (i) to characterize the syntactic strategies used by ASL to add an agent argument onto (i.e., to transitivize) an intransitive motion predicate; (ii) to provide a principle-based account of the factors that underlie the tension between simultaneity and sequentiality, observed in the range of syntactic patterns obtained in the data collected.

Data and Data Collection. Given previous structural differences observed cross-linguistically (Hale-Keyser2001), we consider two types of Agent: those in continuous contact with the Theme (*John took the child to the doctor*) and those with only initial non-continuous contact (*John kicked the ball into the goal*). Data from 3 native ASL signers were collected. Stimuli belong to a larger project on Motion Predicates containing 175 animated video-clips, with 87 related to transitivization: 50 for initial non-continuous contact (*kick*-type), 37 items for continuous contact (*take*-type) (1b/c) each with a corresponding minimally contrastive intransitive pair (1a). Telic and atelic versions of the motion event are included.

(1)   a. no-Agent (intransitive)   b. +Agent: continuous contact   c.+Agent: non-cont contact
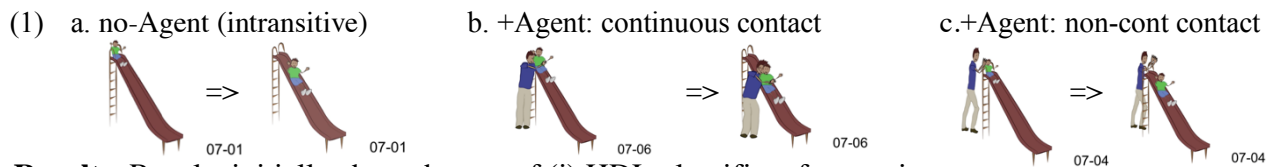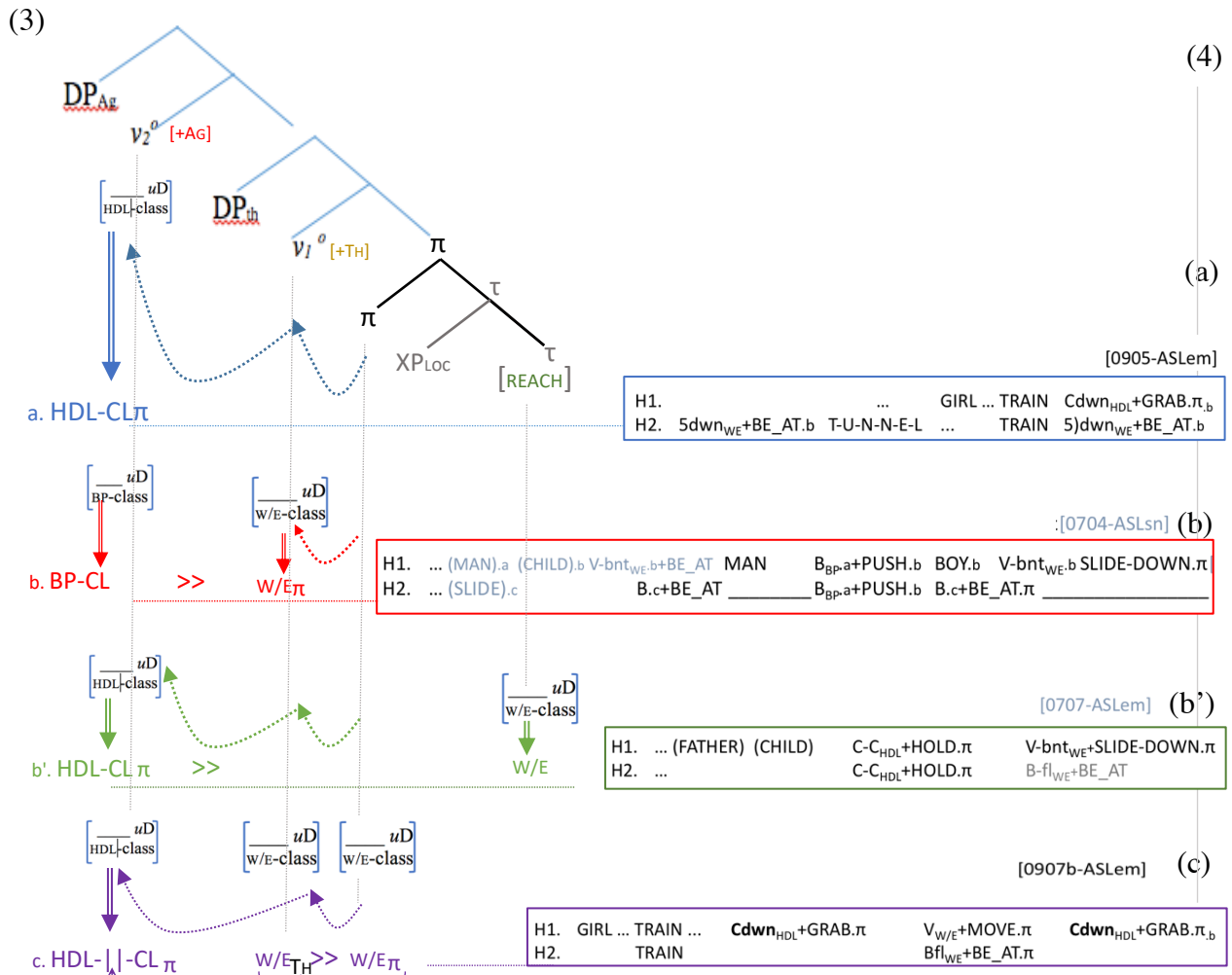

Results. Results initially show the use of (i) HDL-classifiers for continuous contact agents vs BP-classifiers for non-continuous contact agents (4a-b'-c/-4b), as well as a variety of strategies for continuous contact, including Serial Verb Constructions:

(2)   a. Mono-CL: HDL.AG+MOTION.PATH   [4a.]
      b. SVC HDL+W/E: HDL.AG >> W/E.TH+MOTION.PATH   [4b']
      c. SVC Sandwich: **HDL.AG >>** W/E.TH-W/E.π +MOTION.PATH >>
                                    >> HDL.ag-W/E.π +MOTION.PATH   [4c.]
      d. SVC Co-articulation: HDL.ag-a>> HDL.**ag-CL.**-a +MOTION.path:π

Assumptions.

We assume Agents are introduced by a dedicated functional head, *little v* (Kratzer 1996, Chomsky 1995). We further assume, based on work both on SL and in SpL (Borer1994, 2005; Benedicto-Brentari2004; Ramchand2008; Harvey2013) that there is a *v*-split, with an agentive v_2 ($v_{2[+AG]}$ in (3)], structurally separate and above a thematic v ($v_{1[TH]}$). Finally, we also assume the syntactic decomposition of subeventive structure, as outlined in Benedicto-Branchini-Mantovan2015, represented in (3), in particular, the separation of a PATH (π) substructure distinct from a telic REACH (τ) substructure in Motion Predicates; as well as the analysis of Classifiers in Benedicto 2018 that considers them as CLASS features that freely bundle up with contentful functional heads.

Hypohesis. Based on the assumptions above, the structure we claim underlies the patterns in (2) is the following, with the different patterns arising from syntactic movement and available CLASS:

(3)

(4)

(a)

[0905-ASLem]

H1.		...	GIRL ... TRAIN	Cdwn$_{HDL}$+GRAB.$\pi_{.b}$
H2.	5dwn$_{WE}$+BE_AT.b	T-U-N-N-E-L ...	TRAIN	5)dwn$_{WE}$+BE_AT.b

:[0704-ASLsn] (b)

H1.	... (MAN).a (CHILD).b V-bnt$_{WE.b}$+BE_AT MAN	B$_{BP}$.a+PUSH.b BOY.b	V-bnt$_{WE}$ SLIDE-DOWN.π
H2.	... (SLIDE).c	B.c+BE_AT _____	B$_{BP}$.a+PUSH.b B.c+BE_AT.π _____

[0707-ASLem] (b')

H1.	... (FATHER) (CHILD)	C-C$_{HDL}$+HOLD.π	V-bnt$_{WE}$+SLIDE-DOWN.π
H2.	...	C-C$_{HDL}$+HOLD.π	B-fl$_{WE}$+BE_AT

[0907b-ASLem] (c)

H1.	GIRL ... TRAIN ...	**Cdwn$_{HDL}$+GRAB.π**	V$_{W/E}$+MOVE.π **Cdwn$_{HDL}$+GRAB.$\pi_{.b}$**
H2.	TRAIN		Bfl$_{WE}$+BE_AT.π

The PATH morpheme π is a bound morpheme (the kinetic movement of the predicate) and as such, it needs to head-move and attach to another head; in case the Numeration only provides one classifer morpheme, HDL-class, to bundle with the higher v_2, and no REACH head, π successively moves to v_1 and then to v_2, yielding the (a.) case, with only one HDL-CL that is articulated on the motion's PATH (carried by π).

If, on the other hand, the Numeration provides 2 classifiers, one for v_2 and one for v_q, then a 'classical' SVC ensues, with a BP-cl followed by W/E-cl, where only W/E is articulated on the PATH, as the result of π only raising to v_1; that is the 3b-case, exemplified in (4b). Alternatively, if a head REACH is provided by the Numeration, together with a HDL-cl and a W/E-cl, then an alternative SVC arises (the 3b'-case, exemplified in (4b')), where the PATH is articulated on the HDL-cl (as the result of successive head movement of π) and W/E follows with the head τ-REACH. Finally, we will argue that the SVC-Sandwich case is the result of linearization of 3 CLASS morphemes provided by the Numeration: one HDL, one W/E$_{THEME}$ and one W/E$_{PATH}$ (in 3c.). Since there is no physical possibility of simultaneously articulating 3 CLASS morphemes (there are only two hands to support the handshapes), when the second head movement takes the complex head with the 2 W/E-cl's (THEME and PATH) to the head with the HDL-cl, the option of splitting that head (thus, yielding the sandwich effect) is the only spell-out strategy that can save the derivation.

Thus, the tension between simultaneous and sequential articulation is the result of output conditions on the complexity of the nuclear heads (and the operations that, as a result, they are involved in).