Non-standard Complementation: the case of Serial Verb Constructions in Motion Predicates. A crosslinguistic, crossmodality study.

Elena Benedicto, Pin-Hsi Chen, Kwaku Osei-Tutu and Neda Taherkhani – Purdue University

1. Introduction. In this paper we analyze SVCs in Motion Predicates (MP) as an instance of a *complementation structure* used to syntactically represent the sub-eventive components of (mono-eventive) predicates, including the *process, telicity* and *result(ing) state* substructures, as in (11). Using a video-animated app designed for this purpose, we can meaningfully compare the structures thus elicited across spoken and sign languages, from different linguistic families and different geographic locations (thus ruling out genetic and linguistic contact as sources of similarities). The similarities thus found can, therefore, be traced back to properties of the Faculty of Language. We use data from Taiwan Mandarin (Sinitic), Ghanaian Student Pidgin-GSP (English-based Creole), Mayangna (Misumalpan) and LIS (Italian Sign Language) to illustrate our theoretical points; additional data from Tati (Indo-iranian) and ASL are available.

2. Goal. We show that subeventive predicate structure related to telicity and resultativity is encoded via a V-complementation structure resulting in a SVC (§3. below and ex's (1)-(2)); this piece of the puzzle contributes to show that inner aspect is not encoded in the lexical entry of individual verbs but is rather built up in the syntax, as proposals like, e.g., Borer's (2005) have argued for. The same SVC strategy can be used to add an Agent to the (otherwise) intransitive Motion Predicate (10-12). Finally, a complementation SVC can also be used to represent the vectorization of Path (corresponding to the *process* of the complex event, π in (11)) into a 3D spatial Cartesian Coordinate System (see (3) with specification for Vertical, Horizontal and Deictic planes).

(1) The   bird   fly   go   <u>catch</u>   the tree top   [GSP]
     'the bird flew (all the way) to the tree top'

(2) Xiao   niao   fei   qu   <u>dao</u>   shu   shang   [Tw-Mandarin]
     Small   bird   fly   go   arrive   tree   top   'the birdie flew (all the way) to the tree top'

(3) kâma   tât   munah   <u>kil</u>   <u>yaklâ</u>   <u>kiu</u>na   [Mayangna]
     iguana plank   via.P   go_up.ø   cross.ø   go.PST3S ' 'the iguana went up (a tree) by the plank'

We first show that the structures in (1)-(3) are indeed complementation structures, then we address two issues related to the nature of complementation: one is the lack of an argumental relation and of selectional restrictions between the head and the complement, and another is the lack of functional application as a semantic operation to yield the meaning/denotation out of the syntactic Merge operation that results into Complementation. We will propose that these three properties are in fact related and can be derived from the same points.

3. Structural Complementation. That SVC are in a V-Complementation structure was first proposed in Larson (1991) as an extension of his work on ditransitives and resultatives. Evidence for this complementation relation between the verbal units of a SVC can be obtained through a variety of tests: Bound Variable readings (where an operator in the 'object' position c-commands a variable in the Locative constituent—see (4)), Negative Polarity items (where a NPI in the last structural units is licensed by a c-commanding NEG in (5)), and by wh- extraction from the lower structural units (6). All these tests yield ungrammaticality (under the intended reading) on a juxtaposition (a subtype of coordination) analysis of SVCs, as the b-cases in (4-6) show.

(4) a. the   boy   release **every** bird   go   catch   **in** nest   inside   [GSP]
        'The boy released every bird (all the way) into its own nest'
    b. #The boy   release **every**   bird <u>wey</u> **e** go catch **in** nest inside

(5) a. xiao   niao   **měi**   qu   dao   **renhe**   shu shang.   [Tw-Mandarin]
        small   bird   NEG   go   arrive   any   tree   top   'The birdie did not fly over to any tree.'
    b. #xiao   niao   **měi**   qu   <u>bingqie</u>   dao **renhe** shu shang.

(6) a.   **where** the boy release the bird <u>go</u> <u>catch</u> ~~[where]~~?   [GSP]
   b. # **where** the boy release the bird **wey** e go catch ~~[where]~~?
            'where did the boy release the bird into?'

4. Non-standard properties of Complementation in SVCs. Unlike standard complementation between, say, a verb and its clausal complement, verbal sub-units in SVCs do not stand in a head-argument relation. We can see that because (i) the 'complement' V is not obligatory (7); and (ii) because there is no theta (argument) relation between the first V and the 'complement' V. There is also no selectional requirements in the traditional sense; there is, however, a series of restrictions on the types of V that can appear as complement: a *telic* REACH-V can only be merged with a *process* PATH-V; a RESULT-V can only be merged with a *telic* REACH-V, subject to language-specific constraints (and showing that telic/result are not mutually exclusive): see the contrast between the examples in (8) from GSP and LIS, with both a REACH-V and a RESULT-V, and (9) in Taiwanese Mandarin where only one is possible.

(7) xiao   niao qu   (shu shang)   [Tw-Mandarin]
      small bird go   tree top   'The birdie went away (towards the tree.)'
(8) a. The boy release the bird go **catch** the tree **tap** im branch   [GSP]
      'the boy released the bird (all the way) into the tree sit(ting) on its branch'
   b. BIRDx TREEy   CLSFx+GO   CLSFx+REACHy   CLSFx+BE_ATy   [LIS]
      'the bird went (all the way to stand in) to the tree'
(9) xiao niao fei qu **dao**   shu shang ***zai**   shu-zhi shang   [Tw-Mandarin]
    small bird fly go arrive tree top   be_at tree-branch top

In these cases, the SVC-Complementation structure is possible only if a well-formed sub-eventive struture is formed, that is, if a *process-telic(-result)* sub-eventive structure is formed. That interaction between sub-eventive structures takes us into the issue of the nature of the relation between substructures and how it is accomplished. There are two issues to take into account here: one is that the full structure is mono-eventive, the second (interrelated) one is that functional application cannot calculate the meaning of the Merge between, say, a path deictic V and its telic 'complement' substructure τ (☛in the tree in (11)). If we take the general assumption that every V comes in with an event(uality) argument, then the presence of multiple V units predicts that we will have multiple events, contrary to fact. In order to address this issue, we propose a three-pronged analysis: (i) that every V unit does carry an event argument, (ii) that an Event Identification operation (expanding on ideas like Kratzer 1996) concomitant with Merge identifies the event argument of each V as one and the same, and (iii) that all the V-subunits are structurally below one single v^o-head which licenses them categorially and introduces the (internal) argument they all share (the *Figure* of the motion). In that way, we capture the single event reading, the sharing of the internal argument (and the the type of 3D-single vector that (3) produces).

Additionally, we will show that this system can be extended to cases of transitivization of MP, using a split-*v* system where a V encoding *v** (kick in (10)) introduces an Agent.

(10)   the boy **kick** the ball go enter the pole   [GSP]
(11)

(12)