**The semantics of object case alternations in Kwakwala and what it tells us about manner-result complementarity**

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**Summary:** What lexical semantic factors are relevant to the linking of internal arguments? Some well-known answers to this question include incremental themehood and scalarity (e.g. Dowty 1991, Krifka 1992, Tenny 1994, Ramchand 1997), causality and affectedness (e.g. Croft 1991, Dowty ibid.), definiteness and referentiality (e.g. de Hoop 1992), and saliency (Fillmore 1977). In this talk I show that linking to internal object position in Kwakwala is sensitive to whether an argument expresses some aspect of the manner versus the result of an event, a pattern which is revealed through overt case alternations. A theoretical consequence of this finding is that manner/result complementarity cannot be a constraint specifically on verb meaning, contra Levin & Rappaport-Hovav (2010) – although interestingly, it does serve as a constraint on the syntax of internal arguments in this language.

**Background:** Kwakwala is unique among Wakashan languages in possessing two case enclitics, =χ (‘accusative’) and =s (‘oblique’), which obligatorily mark all non-subject nominals not otherwise introduced by a preposition. Transitive verbs realize an internal argument immediately after the subject, which may be as promoted to subject with passive morphology that mirrors case: –suʔ if the unpromoted argument is =χ marked, –ayu if it is =s marked.

**Pattern:** Some verbs consistently realize a =χ-marked internal argument (1), while others consistently realize their internal argument with =s (2). A previously undocumented fact about Kwakwala is that many verbs may realize the ‘same’ event participant with either =χ or =s (3).

1. **Strict =χ:** E.g. change of state verbs, agent transitives, verbs of perception
   
   | hitʔidux | Saraχʷa kiləm. |
   | fix-BEC | =3MED Sara | =ACC=DET net |
   | ‘Sara fixed the net.’ |

2. **Strict =s:** E.g. internally-caused verbs of emission, verbs of emotion and intension
   
   | ؟ółkʷox alienəsa łaχʷstu ؟ółkʷa. |
   | ؟ółkʷ=0χ alien =s=a łaχʷstu | ؟ółkʷa |
   | blood =3MED alien =OBL=DET red.colour blood |
   | ‘The alien bleeds red blood.’ |

3. **Alternating =χ/=s:** E.g. verbs of putting, transfer, thinking, (some) bodily processes
   
   | nəpiːda bəgʷənəm sa siwayu / χə siwayu. |
   | nəp-χʔid | =i=da bəgʷənəm | =s=a/=χ=a | siwayu |
   | throw.BEC | =3DIST=OST man | =OBL=DET/=ACC=DET paddle |
   | ‘The man threw a paddle.’ |

An investigation of the thematic properties of =χ and =s marked arguments with strict verbs reveals that arguments introduced by =χ are high in PROTO-PATIENT entailments (Dowty 1991),...
undergoing scalar changes which can be mapped homomorphically on to the time structure of an event (Ramchand 1997) and/or undergoing some externally caused process: namely, \(\equiv \chi\) arguments express something about the result of an event. Arguments introduced by \(=s\), on the other hand, name a participant which plays a role in how the event is initiated or unfolds: in short, some aspect of its manner. This result-manner generalization shows up in consultants’ judgments in case substitution tests: with strict verbs \(\equiv \chi\) coheres result-like readings, while \(=s\) coheres manner-like readings. With alternating verbs however, consultants judge \(\equiv \chi\) versus \(=s\) marking to be synonymous. Though consultants sometimes report preferring one case to the other with particular verbs and in particular contexts, they are generally unable to explain why.

**Analysis:** Assuming two event roles, PATIENT and MANNER, which relate nominal arguments to events, my task will be to account for linking alternations like in (4c).

(4) **Lexical semantic representations/linking**

a. hit- x fixes y  
   b. ?olk\(\equiv \chi\) x bleeds (with) y  
   c. n\(\equiv \chi\)p- x throws y

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<thead>
<tr>
<th>LCS</th>
<th>(\theta_{INT})</th>
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<tbody>
<tr>
<td>EVENT ROLE</td>
<td>PATIENT</td>
<td>MANNER</td>
<td>{PATIENT, MANNER}</td>
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I’ll begin by discussing how alternations in linking arise in two cases: (a) when a single participant can be conceptualized as bearing either a patient or a manner relation to a given event due to its possessing both result and manner entailments, as with verbs like n\(\equiv \chi\)p- ‘throw’, shown in (5); or (b) when a verb root has few or no entailments related to manner or result, so that the nominal inherits its interpretation from the event role alone (Ritter & Rosen 1996). This latter situation arises with certain light verbs such as ?\(\equiv \chi\)- ‘to do’, exemplified in (6).

(5) **Semantics of the VP in (3)**

a. \([n\equiv \chi p siwayu] = \lambda e.\text{throwing}(e) \& \text{PATIENT}(e, \text{paddle})\)  
   ‘throw paddle’

b. \([n\equiv s p siwayu] = \lambda e.\text{throwing}(e) \& \text{MANNER}(e, \text{paddle})\)  
   ‘throw with paddle’

(6) **Semantics of a VP with ?\(\equiv \chi\)- ‘do’**

a. \([?\equiv \chi p siwayu] = \lambda e.\text{DO}(e) \& \text{PATIENT}(e, \text{paddle})\)  
   ‘do (s.t.) to paddle’

b. \([?\equiv s p siwayu] = \lambda e.\text{DO}(e) \& \text{MANNER}(e, \text{paddle})\)  
   ‘do (s.t.) with paddle’

I’ll then compare two approaches to modeling how manner and result entailments influence linking: (i) an extension of Dowty’s (1991) system to include PROTO-MANNER entailments; and (ii) an event decompositional analysis where \(=s\) marked arguments are participants in an initial subevent, and \(\equiv \chi\) marked arguments are participants in a non-initial subevent.

**Conclusion:** Levin and Rappaport-Hovav (2010) hypothesize that roots cannot lexicalize both result and manner, a constraint which they suggest could be rooted in complexity. The ability for many verbs in Kwak\(\̓\)wala to encode what is in a sense the ‘same’ argument as either a result (\(\equiv \chi\)) or a manner (\(=s\)) shows that contra this hypothesis, verb roots in at least this language can, and often do, have semantic entailments about both manner and result. That manner/result complementarity nevertheless manifests in Kwak\(\̓\)wala on a syntactic level suggests that it is this level of the grammar which may be subject to constraints on complexity.
References