ON THE PERFECT TENSE-ASPECT IN K'ICHEE'AN MAYAN AN LFG APPROACH

Lachlan Duncan

The perfect tense-aspect of the K'ichee'an Mayan languages has attracted only the most cursory attention in the descriptivist Mayan literature and none analytically (Dayley 1985, Larsen 1988, Mondloch 1978). The situation is marginally better, at least with regards to Classic Mayan, Tzeltal, or Tzotzil Mayan, in historical linguistics and epigraphy (MacLeod 2004, Wald 2007). This paper reports on the perfect of K'ichee' Mayan using primarily a syntactic approach and the formal apparatus of LFG. The perfect is referred to here as a 'tense-aspect' because of the difficulty in determining its formal status: tense, aspect, or hybrid (Comrie 1976, Hornstein 1990, Kibort 2009, Klein 1994, Ritz 2012)? A further complication is that the Mayan languages are widely acknowledged to be grammatically tenseless (Bohnemeyer 2009).

The general consensus in the literature is that the perfect tense-aspect is a verb or, less often, a participle. I reject these proposals and suggest alternate accounts. I contend that K'ichee'an perfects are not verbs because of the absence of prefixed aspect markers, which, I suggest, represents the crucial diagnostic of the verb category. Furthermore because K'ichee'an perfects are non-periphrastic, they cannot be verbs due to the absence of auxiliaries. That is, one LFG analysis of auxiliary verbs assume that they are PRED-less: as a result, the analytic construction's participle is understood as the 'finite' PRED-containing verb (Bresnan 2001:78, King 1995:225–8). Moreover, if we accept that verb-derived deverbal participles are either themselves verbs V_{Part} (Bresnan 1982:23), or alternatively, are category-neutral for attributive/predicate adjectives and verbs $[V_{Part}]_{A/V}$ (Kibort 2005), then the K'ichee'an perfect cannot be a participle.

I propose that the K'ichee' and Tz'utujiil perfects are only used in stative non-verbal predicate constructions. This is not surprising because, for example, PIE (Clarkson 2007) and English perfects (Katz 2003) are considered stative not eventive predicates. I argue that the K'ichee' an perfect is a resultative, assuming the 'broad' interpretation of resultatives that includes (derived) statives (Nedjalkov & Jaxontov 1988:7). I believe that K'ichee' and Tz'utujiil perfects are always expressed using two distinct parts-of-speech: a participle-like deverbal adjective and a deverbal possessed nominal. The adjective functions as a prenominal attributive while both categories function as predicates. I suggest that the perfect in its uninflected derived form remains underspecified as an adjective or nominal—similar to Kibort's (2005) participle proposal. The particular category is realized according to whether the derived form is possessed or unpossessed. The perfect's passive form, the output of which represents the morphosyntactic remapping of arg-structure, is simply an incidental by-product of the detransitivization of the patient-oriented resultative.

The analysis presented here resolves multiple inconsistencies that exist with previous approaches and predicts several outcomes. For one, the perfect is obligatorily a grammatical intransitive, irrespective of the transitivity of the root or stem. Notwithstanding this, it is unproblematic for the roles of agent and patient to be expressed in the perfect: the optional agent remaps to the possessive pronoun prefixed to the predicate nominal, or alternatively, to the governed object in a 'by-phrase.'

Data

Composed of a single agglutinating constituent (excluding continuous), verbs inflect with obligatory prefixed aspect markers, person/number marking absolutive (ABS) and ergative (ERG) AMs, etc. (1), (2):

(1) x-ee-w-il-o Transitive verb (2) k-ix-biin-ik Intransitive verb COM-3PLABS-1SERG-see-TPF INC-2PLABS-walk-IPF 'You all walk.'

Tz'utujiil Dayley (1985:74–79, 343–4): The finite verb paradigm falls into two mutually exclusive divisions: the nonperfect/perfect. The nonperfect verb (1)–(2) must begin with a tense, aspect, and/or mode prefix, and may also require a suffix that is dependent on verb class. The perfect verb never uses

TAM prefixes, but requires a suffix that changes according to verb class: -naq for intransitive verbs (3), and -(o)on/-(u)un for transitives (4), etc. Some perfect intransitive verbs may also function as adjectives, with a meaning of having acquired the state indicated by the intransitive. Thus (3) would be 'they are asleep':

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(3) ee war-naq (4) in ki-kuuna-an 3PLABS sleep:IV-PERF 1SABS 3PLERG-cure:DTV-PERF 'They have slept (Dayley 1985:77).' 'They have cured me (Dayley 1985:76).'
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The perfect stems of transitives may also be considered as past passive participial adjectives ("adjectival passives"). These have passive meanings and inflect only for patients, referencing the absolutive AM (5). Compare the adjectival passive (ADJ) in (5) to the verb (DT') in (6):

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(5) ix ajo'-oon (6) ix q-ajo'-oon 2PLABS love:ADJ-PERF 2PLABS 1PLERG-love:DT'-PERF 'You are all loved (Dayley 1985:79).' 'We have loved you all (Dayley 1985:78).'
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K'ichee' Larsen (1988:185–8, 207–8 fn. 15, 230, 234–8, 281 fn. 7): From intransitive verbs, the intransitive suffix -inaq derives perfect participles ("deverbal adjectives") that can function as 'special' NVPs. As predicates, they can be translated as verbs in the perfect aspect. The transitive perfect suffixes -oom \sim -uum, -m derive perfect passive participles from transitive verb roots, and are used as noun modifiers and adjectival predicates (5). Perfect passive participles, which indicate the perfect in a transitive clause, represent objects with non-bound absolutive AMs and subjects with prefixed ergative AMs (7a). However Larsen also conjectures that the perfect's prefixed AMs might instead represent possessive pronouns, because the first person singular AM -nu is identical to the possessive AM, not the ergative AM -in (7b). In the end, Larsen remains undecided, and seems to settle for the transitive participle approach (7a):

- (7) at nu-ch'ay-oom
 2sAbs 1sErg/1sPoss-hit-perf
 - (a) 'I have hit you (Larsen 1988:236).'

nu- is 1sErg

(b) 'You are my one-who-has-been-hit (Larsen 1988:238).' nu- is 1sPoss

Perfect participles can also be used attributively, intransitive (8)/transitive (9), and nominally (10):

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(8) jun kam-inaq tz'i' (9) tzak-om saqmo'l (10) nu-mok-oom one die-PERF dog cook-PERF egg 1sPoss-ask.services.of-PERF 'a dead dog (Larsen 1988:187)' 'boiled water' (L 1988:235) 'my servant (Larsen 1988:236)'
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K'ichee' Mondloch (1978:127, 130): The data in (11) demonstrate Mondloch's treatment of K'ichee's perfect as a verb. Mondloch's perfect interpretation is based on the word order of SVO: *lee nujii'* as the subject, *r-uk'a'm* as the ergative-marked perfect verb, and *lee chiim* as the object:

```
(11) lee nu-jii'<sub>subj</sub> r-uk'a'-m<sub>verb</sub> lee chiim<sub>obj</sub>

DET my-son.in.law 3sErG-carry-PERF DET bag

areetaq x-oopan chuwa w-o'ch

when COM-arrive at my-house

'My son-in-law was carrying the bag when he arrived at my house (Mondloch 1978:127).'
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In addition to the 'present,' perfects also occur in the 'past' and 'future.' Also noteworthy is that the perfect occurs in mediopassive (-tai), antipassive (-n), and so-called focus antipassive (-w/-n) forms.

Classic Mayan Wald (2007:315): In his analysis of historic Mayan epigraphy, Wald discusses the perfect for Classic Mayan, and for contemporary Tzeltal and Tzotzil Mayan. Wald re-analizes their perfects as statal perfects / resultatives, and as verbs. I agree in general with the former interpretation but not the latter.

Contesting previous proposals

Listed here are reasons why the approach advocated in this paper is preferred. Dayley (1985) makes claims about the perfect (see (5) & (6)), many of which I contest: non-verbal predicates host subjects marked with absolutive AMs, except for the 'transitive' perfect – this, I argue, is incorrect; the transitive perfect suffix –oon is used on both an intransitive non-verbal adjectival predicate and a transitive verb – this claim is highly unlikely in K'ichee' an where differentiating transitivity grammatically is paramount; the meaning of (5) & (6) is informally identical because the predicate in (5) optionally licenses a 'by-phrase' to include the underlying agent: (Tz'u) ix ajo'on qmal ojoj 'you all are loved by us.'

Although the descriptivists interpret perfects like (12) as binary GF transitives (cf. Mondloch's (11)), I contend they instead represent a one-place intransitive NVP with two argument roles. The matrix clause's subject, lee chiim, in (12) is referenced by the 3^{rd} per. absolutive AM, \emptyset_j . The clause-initial DP, lee nu-jii', is a possessor that agrees with the 3^{rd} person sg. possessive pronoun r-, prefixed to the perfect-marked nominal -uk'a'-m. It is assumed that the default use of the perfect is to insert a 'state'—here, one of carrying-a-bag—into the narrative discourse (see Nishiyama & Koenig 2004, Parsons 1990):

```
(12) lee nu_k-jii'<sub>i</sub> \emptyset_j r_i-uk'a'-m lee chiim_j
DET 1SPOSS-son.in.law 3SABS 3SPOSS-carry-PERF DET bag

areetaq x-oopan chuwa w_k-o'ch
when COM-arrive PREP:at 1SPOSS-house

'As for my son-in-law<sub>i</sub>, the bag<sub>i</sub> is his<sub>i</sub> thing-that-has-been-carried when he<sub>i</sub> arrived at my house.'
```

Analysis

The c-structure in (15a) and the f-structure in (15b) represent the perfect fragment of the bi-clausal sentence in (12). They represent a DF analysis of DF TOPIC mapped to the lexical possessor *lee nujii*' (cf. Charters 2014). The lexical entry of the root + suffix combination –*uk*'*a*'-*m* is shown in (13):

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(13) -uk'a'-m, (\uparrow PRED) = 'carry-x \langle SUBJ \rangle'

(\uparrow T/A) = Perfect

(\uparrow SUBJ CASE) =_c ABS
```

An alternative approach is the complex predicate analysis of the possessive (Chisarik & Payne 2001) shown in (16). The lexical entries of the perfect suffix *-oom* and root are shown in (14). Here XCOMP and functional control is encoded by the perfect's nominalizer suffix *-oom*. Underspecification of GF on the possessive prefix in (14) means that completeness, coherence, and unification will sort out which GF this PRED gets assigned to. The suffix *-oom* selects root as XCOMP:

```
(14) -oom Suff, (\uparrow PRED) = `-- \langle SUBJ, XCOMP \rangle POSS'

(\uparrow T/A) = Perfect

(\uparrow POSS) = \langle XCOMP, SUBJ \rangle

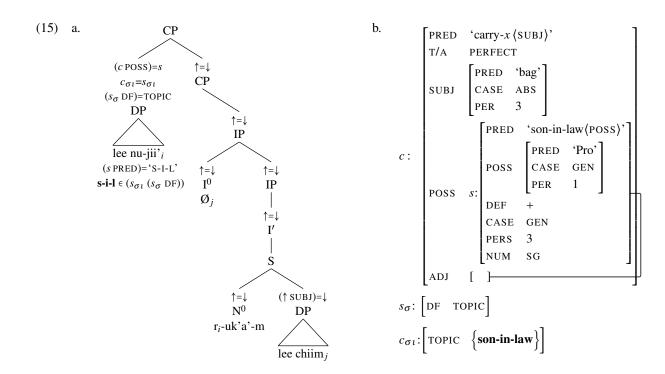
(\uparrow SUBJ) = \langle XCOMP, OBJ \rangle

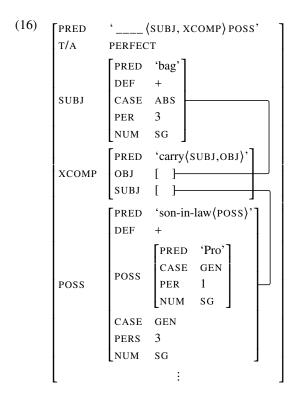
(\uparrow SUBJ CASE) = ABS

(\uparrow POSS CASE) = GEN

Root, (\uparrow PRED) = `carry \langle SUBJ, OBJ \rangle

(\uparrow SUBJ CASE) = POSS
```





Gloss

Orthographic x = [-voi] alveopalatal fricative, j = [-voi] velar fricative, ['] = [-voi] glottalized occlusive/glottal stop; (*x)/*(x)/[x] = x is ungrammatical/obligatory/reconstructed; -/<space> = morpheme/word boundary;

Interlinear gloss: first/second/third person = 1/2/3, absolutive/ergative = ABS/ERG, adjective = ADJ, actor focus = AF, adverb = ADV, agreement marker = AM, antipassive = AP, attributive = ATT, causative = CAUS, clefting particle = CLEFT, contrastive = CONTR, completive/incompletive aspect = COM/INC, complementizer = COMP, demonstrative = DEM, derived = DER, determiner = DET/D, discourse function = DF, derived transitive verb ending in -j/' = DTJ/DT', directional = DIR, emphatic = EMPH, enclitic = ENC, exclamation = EXCL, focus = FOC/FOCUS, fronting = FRT, gerund = GER, grammatical function = GF, imperative = IMP, inchoative = INCH, interrogative = INT, intensive = INTS, irrealis = IRR, intransitive verb = IV, movement = MOV, noun = N, negative = NEG, nominalizer = NOML, numeral = NUM, participle = PART, passive/completive passive/stative passive = PASS/COM.PASS/STAT.PASS, perfect = PERF, plural = PL, genitive possessor = POSS, positional = POSL, possession = Poss, preposition = PREP/P, independent pronoun = PRO, progressive = PROG, relativizer = REL, resultative = RES, root transitive verb = RTV, sentence = S, stem-forming vowel = SFV, singular = SG/S, Spanish = Sp., status suffix = SS, stative = STAT, thematic = THEM, transitive/intransitive/dependent phrase final marker = TPF/IPF/DPF, verb = V, vowel = V.

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Author:

Lachlan Duncan New York lachduncan at verizon dot net