M-merger and copy spell-out in Inuktitut noun incorporation

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A longstanding issue in the analysis of noun incorporation concerns whether the noun-verb complex involves syntactic movement of the object (e.g. Baker 1988, Barrie & Mathieu 2016) or postsyntactic m-merger of the verb and an in situ object (e.g. Levin 2016). The same question pervades the literature on word formation and affixation more generally (Matushansky 2006, Harley 2013, Gribanova & Harizanov 2016, a.o.). This paper argues that Inuit noun incorporation is a strictly postsyntactic phenomenon and extends this view to polysynthetic word-building more generally. Novel fieldwork from Inuktitut (Nunavut dialects) reveals that incorporated objects are syntactically active—i.e. remain accessible for case, agreement, and A-/A'-movement operations—despite being overtly realized within the verb complex. The full range of facts is unexpected under a movement analysis, but follows straightforwardly if incorporation is m-merger, applying after operations in the syntax. A further argument for the m-merger analysis comes from interactions between m-merger and copy spell-out, as an extension of Landau (2006). More broadly, this paper proposes that successive m-merger under adjacency is sufficient to derive polysynthetic word formation, against recent characterizations of polysynthesis as a purely phonological phenomenon (Compton & Pittman 2010, Barrie & Mathieu 2016).

Inuit noun incorporation: Unlike ‘canonical’ noun incorporation (Baker 1988), Inuit noun incorporation is obligatory with a small set of light verbs (underlined) and is otherwise impossible with all lexical verbs (Sadock 1980, Johns 2007), (1). Johns (2007) attributes Inuit NI to a morphological requirement that every word contain a root; light verbs are v0s that trigger movement of a nominal root. This paper instead proposes that noun incorporation—and Inuit word formation more generally—is derived postsyntactically via m-merger between a head and the element it immediately c-commands (analogous to Lowering; Embick & Noyer 2001). Light verbs directly select for and undergo m-merger with a nominal complement rather than a verbal root, yielding the appearance of incorporation, (2).

(1) a. **pitsi-tu-vunga**
   dried.fish-consume-INTR.1S
   ‘I am eating dried fish.’

b. **pitsi-mik nigis-vunga**
   dried.fish-MOD eat-INTR.1S
   ‘I am eating dried fish.’ (Johns 2007)

In situ objects: Evidence that v0 directly takes the object as its complement, feeding m-merger, comes from idiosyncratic selectional restrictions between the two; I assume these are built into the denotations of the light verbs. For instance, certain light verbs like -siuq ‘seek’ only take nominal objects of type <e,t>, (3a); type e objects such as pronouns are impossible, (3b). In contrast, -uquuji ‘resemble’ only selects for type e objects, yielding the opposite pattern, (4). Moreover, evidence that the object truly stays in situ (i.e. that incorporation does not even involve short movement) comes from the ability to incorporate island-internal nominals, e.g. in coordinate structures, (5).

(3) a. **savi-siuq-tunga**
   knife-look.for-INTR.1S
   ‘I am looking for a knife.’

b. **igvi-siuq-tunga**
   2s-look.for-INTR.1S
   Intended: ‘I am looking for you.’

(4) a. **angaju-uquuji-juq**
   elder.rel.-resemble-INTR.3S
   Int.: ‘She resembles an elder relative.’

b. **igvi-uquuji-juq**
   2s-resemble-INTR.3S
   ‘She resembles you.’

(5) **uviniru-taa-ruma-junga amma=lu qaalli-nit**
   shirt-get-want-INTR.1S and=ADD pants-MOD
   ‘I want to get a shirt and pants.’

Syntactic activity: The central argument for postsyntactic m-merger, however, comes from the observation that incorporated objects in Inuktitut are not syntactically inert, contrary to previous literature (Sadock 1980, van Geenhoven 1998). Rather, they are visible for (i) case assignment and φ-agreement and (ii) movement. These facts are problematic for an incorporation-via-movement analysis, and necessitate an order of operations in which incorporation takes place after the syntactic derivation.
(1) Case/agreement: As first noted by Johns (2009), NI in Inuktitut optionally allows object φ-agreement. While this is in principle compatible with a movement analysis of NI (see Baker et al. 2005), novel data from Inuktitut reveal a fuller picture that argues for postsyntactic m-merger. Crucially, incorporation constructions may be antipassive (ABS-MOD; 6a) or transitive (ERG-ABS; 6b), just like their non-incorporating counterparts. That Inuktitut incorporated objects may participate in clause-level case alternations is particularly unexpected under a movement analysis, as incorporation-via-movement is known to disrupt case patternings in other languages (e.g. Alutor; Podobryaev 2013). Thus, Inuktitut case/agreement relations must be calculated in the course of the syntactic derivation prior to incorporation.

The sole difference between incorporating and non-incorporating constructions in Inuktitut is the fact that the former involves an additional step of m-merger between the verb and its object.

(6) a. Jaani marruu-ni nunasiuti-taa-ru-ma-juq
   J.ABS two-MOD car-get-want-INTR.3S
   ‘Jaani wants to get two cars.’ (ABS-MOD; want > 2 cars)

   b. Jaani-up marruu nunasiuti-taa-ri-juma-jangit
   J.-ERG two.ABS car-get-TR-want-TR.3S/3P
   ‘Jaani wants to get (these specific) two cars.’ (ERG-ABS; 2 cars > want)

(II) Movement: The data in (6) also illustrate a well-known scope contrast between antipassive and ABS objects; a standard account is that ABS objects move to a structurally higher position (e.g. Bittner & Hale 1996). However, this movement step raises a derivational puzzle for movement-based approaches to NI: How can the object both incorporate into the verb and undergo further movement to a vP-external position? Compounding this problem, Inuktitut also allows incorporated objects to be passivized and relativized (cf. Johns 2009). Passivized incorporated nominals control subject φ-agreement and may bind a lower anaphor, (7a), suggesting that they have undergone A-movement. Similarly, the relative clause in (7b) may be analyzed as involving Å-movement of the object ujuq ‘stew.’

(7) a. aasiva-juq-ta-u-juq  nulia-mi-nut
    spider-eat-PASS-be-INTR.3S mate-POSS.REFL-OBL
    ‘The spider, is being eaten by self,’s mate.’

   b. kina nungu-si-vaa [rel uvanga uju-liu-qqau-janga]-ni
    who.ABS finish-AP-INTR.INTERR.3S 1S stew-make-REC.PST-TR.3S/3S-MOD
    ‘Who ate the stew that I made earlier?’

M-merger and higher copy deletion: Postsyntactic m-merger provides a solution to this paradox. I argue that movement has indeed taken place in the syntax in the above examples; however, this is obscured by a later interaction between m-merger and copy deletion. I assume Landau’s (2006) theory of copy spell-out (see also van Urk 2017): an economy condition forces deletion of all but one copy in a chain, and the choice of which copy to pronounce is regulated by well-formedness conditions on wordhood (e.g. the Stray Affix Filter). In Inuit NI, m-merger feeds affixation. Thus, m-merger with the object in its base position forces that copy to be pronounced; the economy condition then forces deletion of all higher copies of the object. Support for this approach comes from the limited possibility of object doubling. Possessed DPs generally may not be incorporated (Johns 2007); in these cases only, a doubled object or an expletive pronoun may surface in the verb complex instead, (8). In the full paper, I analyze this as a Last Resort process which takes place to satisfy the same well-formedness condition.

(8) [ Carol-m nunasiuti-nga-ni ] pi-lii-junga / nunasiuti-lii-junga
    Carol-GEN car-POSS.3S/3S-MOD EXPL-do-INTR.1S car-do-INTR.1S
    ‘I am working on Carol’s car.’

Implications for polyphony: Inuit NI is treated here as a subtype of complex word formation. This is prima facie similar to Compton & Pittman (2010), who propose an Inuit-specific requirement that all CP/DP syntactic phases get realized as single phonological words (see also Barrie & Mathieu 2016). Under such an approach, polyphony is a phonological phenomenon, not morphosyntactic. Against this, however, I contend that there is nothing special about complex words in Inuit or other polysynthetic languages; m-merger under adjacency is a universally-available mechanism. The polyphonic nature of Inuit comes from the requirement all heads undergo m-merger with an immediately adjacent X0/XP.