Variation in Agreement in Pseudo Noun Incorporation in Blackfoot

Michael Barrie (Sogang University) and *Kyumin Kim (Cheongju University)*

Nutshell: Pseudo noun incorporation (PNI) objects are well known to be defective syntactically as well as semantically (Massam 2001; Dayal 2011). For example, they typically do not show verbal agreement. However, in Blackfoot (Algonquian), a numeral + noun object can show agreement with older speakers, but not with younger speakers. We propose that a null indefinite D head is present in the older variety but is lost in the younger variety. We also show how this proposal can account for agreement of different sizes of nominals in both varieties.

Background: Blackfoot is a polysynthetic language with subject and object agreement. Specifically of interest here is the fact that the verb in Blackfoot agrees in animacy with the subject of intransitive verbs and with the object of transitive verbs. Blackfoot can have bare nominal objects, which Bliss (2018) argues is PNI. This construction has been known in Algonquian since at least Bloomfield (1946). Here is a near minimal pair. (Note that there is more than one lexical root for *horse*.)

(1) a. na-yiis-o-yii-wa ann-yi w-ot'as-yi *'He fed his horse.'*
EVID-feed-TA-DIR-PROX DEM-SG.OBV 3-horse-SG.OBV
b. na-yiis-aki-wa ponokáómitaa *'He fed a horse/horses.'*
EVID-feed-AI-PROX horse

Example (1)a contains a full KP object, which the verb agrees with (TA = transitive, animate object). Example (1)b contains a bare object, which fails to trigger verbal agreement. Rather, the verb inflects as though it were intransitive (AI = animate subject, intransitive). Bliss presents several diagnostics for a PNI analysis (Massam 2001; Dayal 2011), most of which also hold for the younger speakers we tested. The differences are discussed in the next section.

Number marking is also of considerable interest to this discussion. As Kim *et al.*(2017) report, number marking is obligatory in full KPs, both on demonstratives and on the nouns themselves. By contrast, in the younger generation, plural marking is obligatory only on demonstratives. The judgements for the following examples presuppose a plural interpretation. Example (2)a, adapted from Bliss (2013), represents the older generation, where agreement is obligatory on both the demonstrative and on the noun. Example (2)b represents the younger generation, where agreement is obligatory only on the demonstrative.

(2) a. wayak-ohkoono-yii-wa **om-iksi** poos*(-**iksi**)
both-find.TA-3:4-PROX DEM-PL cat-**PL** '*She found both those cats.*'
b. nit-ii-ino-a-yi om-**iksi** aakiikoan**(-iksi)**
1-PST-see.TA-DIR-PL DEM-PL girl**(-PL)** '*I saw those girls.*'

Numeral + Noun Constructions: The numeral + noun constructions provide an interesting testing ground for PNI since they are neither full KPs nor bare nouns. The following minimal pair shows that numeral + noun constructions can inflect either as a transitive verb (3)a (TI = transitive, animate object) or as an intransitive verb (3)b.

(3) a. a'pistotsi-m-yi=aawa niookska-yi itaisooyo'p-istsi
build.**TI**-DIR-PL=PRX.PL three.INAN-PL table-INAN.PL
'They built three tables.'
b. a'pistotaki-yi=aawa niookska-yi itaisooyo'p-ists
build.**AI**-PL=PRX.PL three.INAN-PL table-INAN.PL
'They built three tables.'(Matthewson and Weber 2017)

Both sentences are grammatical in the older dialect; however, only (3)(2)b, with intransitive agreement (AI – animate subject intransitive) is grammatical in the younger dialect.

Proposal: We capture the dialectal difference by the availability of a phonologically null [-def] D head. Specifically, the older dialect has this head, while the younger dialect lacks it. Blackfoot has the option of pseudo incorporating either a NumP or a *n*P (Bliss 2013). Finally, we must make one stipulation—in both dialects K has the EPP property. Following Bliss (2013) and Kim *et al.* (2017), we propose the following four possible structures for the older dialect. (4)a is a full DP object. As in Bliss's original proposal for older speakers the Numeral + Noun constructions are instantiated by (4)b, giving rise to transitive agreement, or by (4)c, giving rise to intransitive agreement. Bare PNI objects are instantiated by (4)d. We return to bare plurals shortly.

(4) a. $[_{KP}$ DEM $[_{K'}$ K $[_{DP}D_{+def}$ $[_{NumP}$ (Nml)+N]]] 'those (three) cats'
b. $[_{KP}$ $[_{NumP}$ (Nml)+N]$_i$ $[_{K'}$ K $[_{DP}$ $D_{-def}t_i$]] '(three) cats'
c. $[_{NumP}$ (Nml)+N] '(three) cats' (Nml = numeral)
d. $[_{nP}$N] 'a cat/cats'

We propose the following three possible structures for the younger dialect. We argue that since there is no [-def] D in the younger dialect, the equivalent of (4)b is not available, and the Numeral + Noun construction can be instantiated only by (5)b, giving rise to intransitive agreement. As in (5)a and (5)b respectively, full KP objects and bare PNI object are derived the same as in the older dialect.

(5) a. $[_{KP}$ DEM $[_{K'}$ K $[_{DP}D_{+def}$ $[_{NumP}$ (Nml)+N]]] 'those (three) cats'
b. $[_{nP}$ (Nml)+N] '(three) cats'
c. $[_{nP}$N] 'a cat/cats'

Turning to bare plurals, we depart from Kim *et al*. (2017) and propose that in the older dialect these arise from a NumP without a numeral. Thus, in the older dialect number projects as a head throughout the paradigm (Wiltschko 2008; 2014). A bare plural PNI object is specified for number and receives a plural interpretation. A bare singular PNI object is an *n*P and is not specified for number and receives a general number interpretation ((4)d). The difference with the younger generation, we propose is that number in the extended nominal projection merges as an adjunct and does not project (Wiltschko 2008; 2014), hence the label of *n*P for (5)b. This gives rise to the same surface patterns as the older dialect. A bare singular *n*P is number neutral, and a bare plural *n*P has a plural marker adjoined and receives a plural interpretation. This also explains the variation in agreement in (2). Plural agreement is obligatory in the older generation, (2)a, since number projects as a head. In the younger generation, (2)b, number merges as an adjunct, so is optional. We assume that the number probe inside the demonstratives merges as a head in both dialects as number marking is obligatory on DEM in both dialects. Finally, to prevent transitive agreement with bare N and bare plural N PNI objects, we assume that SpecKP must host a phonologically heavy enough phrase to satisfy EPP. As Windsor(2017) shows, DEM is a phonological phrase. We show that a bare N/plural N is not a phonological phrase (spectrogram and data not shown for lack of space) and is not heavy enough to satisfy EPP on K. No other material being available, KP cannot project with bare N/plural N objects.

Conclusions: The proposed analysis captures the differences in agreement between older and younger speakers by varying the syntax of number: as a head for old speakers, but as an adjunct for younger speakers, which supports recent views that the syntax of number is not identical (Acquaviva 2008; Wiltschko 2008, 2014; Mathieu 2012).

References:

Acquaviva, Paolo. 2008. *Lexical Plurals*. Oxford: Oxford University Press.

Bliss, Heather. 2013. *The Blackfoot Configurationality Conspiracy: Parallels and Differences in Clausal and Nominal Structures*. University of British Columbia dissertation.

Bliss, Heather. 2018. Pseudo-Incorporation in Blackfoot. *International Journal of American Linguistics* 84(4). 441–470. DOI: https://doi.org/10.1086/698853

Bloomfield, Leonard. 1946. Algonquian. In Henry Hoijer (ed.), *Linguistic Structures of Native America*,. New York, NY: Viking Fund Publications in Anthropology: 6.

Dayal, Veneeta. 2011. Hindi Pseudo-Incorporation. *Natural Language & Linguistic Theory* 29(1). 123–167.

Kim, Kyumin, Elizabeth Ritter, Martina Wiltschko & Hotze Rullman. 2017. 2 + 2 = 3: Number contrasts in Blackfoot. *Glossa: A Journal of General Linguistics* 2(1). 96.

Massam, Diane. 2001. Pseudo Noun Incorporation in Niuean. *Natural Language & Linguistic Theory* 19(1). 153–197.

Mathieu, Éric. 2012. Flavors of Division. *Linguistic Inquiry* 43(4). 650–679. DOI: https://doi.org/10.1162/ling_a_00110

Wiltschko, Martina. 2008. The syntax of non-inflectional plural marking. *Natural Language & Linguistic Theory* 26(3). 639–694.

Wiltschko, Martina. 2014. *The Universal Structure of Categories: Towards a Formal Typology*. Cambridge: Cambridge University Press.

Windsor, Joseph W. 2017. Predicting prosodic structure by morphosyntactic category: A case study of Blackfoot. *Glossa: A Journal of General Linguistics* 2(1). 1–17.