Three ways of explaining the participle-nominalizer polysemy

Éva Dékány – Ekaterina Georgieva (MTA Research Institute for Linguistics) dekanyeva@nytud.hu, ekaterina.georgieva@nytud.hu

Aims & Claims: Cross-linguistically, it is widespread that the same suffix appears in participial relative clauses (pRCs) and argument structure preserving nominalizations. This is observed in Uralic, Altaic and Quechua languages (Koptjevskaya-Tamm 1993; Serdobolskaya & Paperno 2006; Shagal 2018). We investigate this phenomenon in Udmurt and Khanty (Uralic) as well as Kazakh, Modern Standard Turkish, Uyghur and Korean (Altaic). We claim that there is syntactic variation in how the so-called participle–nominalizer polysemy arises: languages fall into 3 types, parametrically differing in the structure of pRCs and nominalizations. Thus we claim that the participle–nominalizer polysemy might arise from different underlying structures. We also predict that a 4th logically possible type would not be attested cross-linguistically.

Analysis: We argue that the shared suffix of pRCs and nominalizations expones an aspectual head (Ptcp) in the extended VP (Collins 2005; Baker 2011; *pace* Doron & Reintges 2005).

Type 0: pRCs have the structure in (1). Nominalizations with the shared suffix are mixed extended projections (Borer 1997; Borsley & Kornfilt 2000; Alexiadou 2001): here PtcpP is topped off by a (zero) nominalizer n (2) or a nominal functional head, e.g. D (3).



pRCs with no nominal properties, as in (1), are attested in Udmurt and Kazakh. The subject of an object pRC can be overt (Nom marked in Kazak and Instr marked in Udmurt) or covert (4). It has also been claimed that the subject can be Gen, with non-local agreement on the head noun (Kornfilt 2005, 2015; Aygen 2011 on Turkic, Ackerman & Nikolaeva 2013 on Uralic). We show that the Gen NP is a possessor in spec,DP, (thus it's outside of pRC), and agreement is local (5). This is supported by novel evidence: i) the position of the Gen NP wrt demonstratives, ii) inanimate NPs (see Ótott-Kovács 2019 on Kazakh).

(4) [PRO/Ivan-en	lįddź-įl-em]	kńiga ((5) Ivan-len	[PRO mertt-em]	pispu-ez
Ivan-INS	read-FREQ-PTCP	book	Ivan-GEN	plant-PTCP	tree-POSS:3SG
'the book read	by someone/Ivan'		'the tree p	lanted by Ivan'	[Udmurt]

Kazakh and Udmurt PtcpPs can also occur in argument position. These do have nominal properties: the non-finite verb bears possessive marking and case (or is embedded under a P), and its subject is Genitive (6). We argue that these are mixed projections, as in (3).

(6) [Maša-len ta śariś jua-l'l'a-śk-em-ez-li] Kol'a šumpot-i-z.
Masha-GEN this about ask-FREQ-INTR-PTCP-POSS:3SG-DAT Kolya be.glad-PST-3SG
'Kolya was glad that Masha keeps/kept asking about this.' [Udmurt]

The subject of nominalizations moves to spec,DP, becoming a derived possessor (*pace* earlier proposals for Turkic languages according to which the subject receives genitive case in the non-finite clause, without movement to spec,DP, cf. Kornfilt 2015; Asarina & Hartman 2011). In Udmurt, the possessor of an object NP is Ablative marked (Assmann et al. 2014). The subject of nominalizations in object position must also be Ablative, showing strong evidence that i) PtcpP is nominalized, ii) the subject moves to spec,DP. Subject idioms retain their idiomatic meaning when nominalized, which also supports the derived-possessor analysis.

Type @: pRCs are as in (1); there are no mixed projections. What has been called a nominalization involves an ordinary PtcpP modifying a zero noun with the meaning of 'event' or 'fact', either as a relative clause (7) or as a complement (8).

(7) 'nominalization' (=underlying pRC) (8) 'nominalization' (=PtcpP complement) FP PtcpP F' VP Ptcp F verb NP VP Ptcp F NOUN/covert light noun VP Ptcp Ptcp VP Ptcp NOUN/covert light noun<math>VP Ptcp VP Ptcp NOUN/covert light noun

Asarina & Hartman (2011) independently argue that both (7) and (8) are attested in Uyghur; Kim (2004, 2009) has shown that (8) is employed in Korean. Crucially, the zero noun freely alternates with an overt lexical noun in both languages (9). With a zero N, the obligatory nominal suffixes (Poss, Case) attach to the linearly adjacent non-finite verb for phonological support at PF (this is common for stranded nominal suffixes in agglutinative languages: Saab & Lipták 2016). This yields the same linear string as (2) or (3) (cf. (6)), but without involving actual nominalization.

Ötkür [Tursun-nɨŋ tamaq yi-gen] (heqiqet)-i-ni bil-i-du.
Ötkür Tursun-GEN food eat-PTCP fact-POSS:3SG-ACC know-IMPF-3
'Ötkür knows the fact that Tursun ate food.' (Asarina & Hartman 2011)

Zero Ns are a property of the lexicon and are thus not expected to occur in every language. PtcpPs in Kazym Khanty are used as pRCs and 'nominalizations' like (9) but in the latter case in contrast to Korean and Uyghur, an overt, semantically light and morphologically defective N (*wer* 'deed', cf. Starchenko 2019) is used.

Type O: Both pRCs and nominalizations contain a nominalized PtcpP, that is, pRCs are also mixed projections (10). We argue that this is attested in Modern Standard Turkish (MST) object

pRCs formed with the suffix -DIK (Göksel & (10) nominalized pRC

Kerslake 2005). These pRCs have obligatory Poss morphology on the non-finite verb, crossreferencing the ϕ -features of the subject (11). Arbitrary subjects are ruled out (13), in contrast to Udmurt (4).



(11) bu sene dik-tiğ-i ağaç this year plant-OBJ.PTCP-POSS:3SG tree 'the tree that s/he planted this year'

ağaç (12) *bu sene dik-tiğ ağaç tree this year plant-OBJ.PTCP tree 'the tree planted this year (by sb)' [MST]

[Uyghur]

The obligatoriness of the subject and the possessive agreement as well as the genitive case on overt subjects is reminiscent of the nominalized Udmurt pattern in (7). These facts suggest that pRCs in MST are analysable as nominalized (11).

Discussion: The properties of the three attested types are summarized in the table below.

	Type ①	Type 2	Type ③	*Type ④
Nominalized pRCs	X	X	1	1
Mixed projections in argument position	1	X	1	X

We predict that if a language employs nominalized pRCs, then these would also be used as arguments: nominalized pRCs are, in effect, mixed projections, which are expected to occur in argument positions and as complements of P. Thus Type ④ is not expected to be attested. Our analysis not only straightforwardly captures the cross-linguistic variation (which we argue to be related to two independent factors: the availability of zero nouns and the nominalized/non-nominalized nature of PtcpP), but also provides a natural explanation for the widespread polysemy between pRCs and nominalizations, as the polysemy might arise from three different structures.