Deconstructing Clausal Noun Modifying Constructions *

ANNA BUGAEVA
NINJAL

JOHN WHITMAN
NINJAL/Cornell University

1 Introduction

Comrie (1996, 1998, 2010) and Matsumoto (1997) argue for the existence of a class of languages where relative clauses (RCs) and clausal noun complements (NCs) have the same structure. The hallmarks of these "general noun-modifying clause constructions" (GNMCCs) are claimed to be surface similarity in the formal exponence of NCs and RCs, lack of evidence for extraction (relativization) in RCs, and the use of the GNMCC pattern in complex NPs with a very wide range of relations between the clausal constituent and the head noun. We show that these properties do not hold together. In the main subset of languages claimed to have GNMCCs in Matsumoto (forthcoming), including Japanese Korean, and Ainu, NCs and RCs are clearly distinguished

by phenomena such agreement and N' pronominalization. To the extent that these have been carefully investigated, the alleged GNMCC languages also exhibit island violations. We conclude that GNMCCs do not form a coherent typology. Our particular focus in this paper is to show that NCs and RCs are structurally distinct, even in languages that have been claimed to exhibit GNMCCs.

2   Noun complements trigger agreement; relative clauses do not

Comrie (1998) situates Ainu within the class of GNMCC languages. However Bugaeva (to appear) shows that Ainu marks the distinction between RCs and NCs by displaying possessive marking on NC head nouns, but not RCs. (1) is an example of possessive marking in a simple possessive NP, while (2) is an example of juxtaposition in a simple attributive NP.

In simple NP possessive constructions (1), the possessee takes the so-called possessive form marked by the possessive suffixes *-hV* or *-V(hV)* which indicate the bound status of the form. The possessee is also marked with one of the A prefixes for the person and number of the possessor (3-rd person is zero).

(1)   a. ku=sapa-ha
          1SG.A=head-POSS
          'my head'

      b. kamuy rus-ihi
          bear   fur-POSS
          'the bear skin'

In simple NP attributive construction (2), the attributive and modified nouns are simply juxtaposed.

(2)   a. sísam   uwepeker
          Japanese old.tale
          'an old Japanese folk story'

      b. kamuy rus
          bear   fur
          'a bear skin' (T 187)

Example (3) shows the same possessive marking as (1) in an NC, and (4) in a perception noun complement (PNC). We see that this marking does not occur in a RC (5). This shows that RCs patterns with a simple attributive NPs (2), while NC/PC complex NPs pattern like possessive NPs.

(3)   [sísam   mosir ta   po   poro-n-no
       Japanese land LOC even.more be.many-EP-ADV

DECONSTRUCTING CLAUSAL NOUN MODIFYING CONSTRUCTIONS / 3

a=e-toy-ta   p   usa   aep-i,   ne   wa
IND.A=with.APPL-land-dig thing various food-POSS COP and

an   kor ene,   wakka mes-pa] asur-**u**
exist.SG and like.this water smash-PL rumor-POSS

'A **rumor** (that) the water has smashed it like this, (those) crops that were even more abundantly grown in the land of the Japanese and various foods.' (Ainu; TS1: 48)

(4) [an=kamuy-hoku   ek]   hum-**ihi**   an=eraman
IND.A=god/spirit-husband come.SG sound-POSS IND.A=understand

'I recognized the sound of my (Thunder)-god husband coming.' (Ainu; K: 408)

(5) [ku=roski   a]   inaw   opitta hácir   wa
1SG.A=stand.PL PERF inaw.prayer.sticks all   fall.down and

okay
exist.PL

All the inaw-willow prayer sticks which I had erected fell down.' (Ainu; AB: 187-8)

The appearance of 3rd person singular marking on the head of NCs but not RCs is exactly the same as the pattern in Turkish cited by Comrie (1998) for Turkish from Kornfilt (1997). Turkish data below are cited from Kornfilt and Vinokurova (to appear):

(6) ev   kapı -**sı**
house door -CMPD.MRKR

'house door' (Turkish, Kornfilt and Vinokurova (to appear))

The form of the compound marker is identical to the 3rd person singular possessive agreement marker. As in Ainu, the same marker appears on the head noun in NCs, but not in RCs:

(7) [hırsız -ın   kaç   -tığ   -ı]   haber -i
thief   -GEN escape -IND.N -3.SG news -CMPD.MRKR

'The news that the thief escaped' (Turkish, Kornfilt and Vinokurova (to appear))

(8) [hırsız -ın $\mathbf{e}_i$ çal -dığ   -ı]   vazo$_i$ (***-su**)
thief   -GEN   steal -IND.N -3.SG vase (-CMPD.MRKR)

'The vase which the thief stole' (Turkish, Kornfilt and Vinokurova (to appear))

On the basis of this clear distinction between NCs and RCs, Comrie (1998) concludes that Turkish is not a GNMCC language. By the same logic, based

4 / ANNA BUGAEVA AND JOHN WHITMAN

on the data in (3)-(5), the same conclusion should hold for Ainu. And indeed, the Turkish and Ainu pattern is not isolated. Nikolaeva (to appear) shows that a similar pattern holds in Tundra Nenets (SAMOYEDIC). Nikolaeva argues that participial RCs in Tundra Nenets behave like regular adjectives while NCs have the properties of a possessive construction. The dependent subject of the RC is cross-referenced on the head noun by the possessive suffix, as in a number of Eastern Turkic, Tungusic and Mongolic languages (9a). However, in the case of NCs, where the predicate takes the genitive form of an action nominal, the optional third person possessive agreement on the head is not with the dependent subject but with the dependent clause as a whole, as we see in (9b). Possessive agreement in NCs is thus fixed as 3rd person singular, as in Ainu (3), (4)[1].

(9) a. [(**mən'ᵒ**) t'en'ana ŋəwᵒla-wᵒdaweyᵒ] wen'ako-**m'i**
I yesterday feed-NEG.PART dog-1SG

'the dog which I didn't feed yesterday'

b. [s'enc'eləwa-xəna yil'e-wa-ntᵒ m'ir / m'ir-ta
hotel-LOC live-IMPF.AN-GEN.2SG price / price-3SG

'the price of your stay in a hotel' (Tundra Nenets, Nikolaeva (to appear))

The crux of Comrie's (Comrie 1998) argument that Turkish is not a GN-MCC language was that in addition to distinguishing RCs and NCs by marking on the head, Turkish lacks the characteristic Japanese and Korean GN-MCC pattern in (10), where gapless clausal dependents distinguished from RCs in languages such as English are morphologically identical to RCs:

(10) a. *et piş-en koku
meat cook-REL.P smell
Intended reading: 'the smell of meat cooking' (Turkish, Kornfilt and Vinokurova (to appear))

b. *[et-in piş-tiğ-i] koku
meat-GEN cook-REL.P-3.SG smell
Intended reading: 'the smell of meat cooking' (Turkish, Kornfilt and Vinokurova (to appear))

As is well known, Korean and Japanese allow perception noun complements (PNCs) such as (10); thus Comrie classifies these languages as GNMCC languages:

---

[1] The Tundra Nenets distinction between RCs and NCs is not universal among languages which mark possessive agreement with the dependent subject on the head of RCs. In Sakha, for example, possessive agreement is with the dependent subject in NCs as well, the same pattern as in RCs (Kornfilt and Vinokurova (to appear))

(11) a. [kyaku=ga niku=o   yaku] nioi   (Japanese)
    guest=NOM meat=ACC grill   smell

    'the smell of the guest cooking meat'

  b. [sonnim =i kok =lul   kwup-nun] naymsay (Korean)
    guest NOM meat ACC grill-ADN   smell

    'the smell of the guest cooking meat'

Since Ainu and Tundra Nenets both distinguish RCs and NCs the same way Turkish does, if there were a unified GNMCC language type, we would expect these languages, like Turkish, to disallow PNCs like Korean and Japanese in (11). But in fact both languages do allow Japanese/Korean type PNCs. In Ainu, PNCs pattern with NCs: they employ the possessive construction, glossed as POSS.

(12) a. [e=munin] hura-**ha**   (Ainu)
    2SG.S=rot smell-POSS

    'your rotten smell'; lit. 'the **smell** of you rotting' (OI)

  b. [Wera-h   xal'a-m   tal^{o}tamp^o-wa-**h**]   ŋəpt^o (Tundra Nenets)
    Wera-GEN fish-ACC fry-IMPF.AN-GEN smell

    'the **smell** of Wera frying the fish.'

This shows that RCs and NCs are structurally distinct in these languages, and that PNCs pattern with NCs. But the more important general point is that the supposed GNMCC properties do not cohere: the existence of NC-like PNCs does not correlate with presence (as in Ainu or Nenets) or absence (as in Japanese/Korean or Sakha) of a formal distinction between RCs and NCs.

3   The RC : NC distinction in N' pronominalization

Our argument in the previous section was based on the existence of possessor agreement in Ainu, Turkish, and Nenets. The possibility of possessor agreement showed that NCs and RCs are distinct, and further that PNCs pattern with NCs. Japanese and Korean lack possessor agreement. Can another syntactic phenomenon be found that distinguishes NCs and RCs in these languages?

The answer is yes. NCs and RCs are distinguished in Japanese and Korean by phenomena that substitute a pronoun for the head in a complex NP. Let us consider Japanese first[2].

---

[2] Sito (1900) argue that some cases of apparent N pronominalization in Japanese are NP ellipsis, leaving no '*'s, one*' behind in the DP projection on a par with the English pattern analyzed by Jackendoff (1971) as N' Ellipsis and by Abney (1986) as NP Ellipsis. For our purposes here, the difference between pronominalization and pronominalization is not crucial; we are applying the phenomenon simply as a diagnostic in NC and RC environments.

6 / Anna Bugaeva and John Whitman

As is well known, Japanese can substitute for a subpart of a nominal projection with the pronoun no 'one, thing'. No pronominalization (McGloin 1985) is freely possible in RCs.

(13) [[Ryoosi ga   yaita] sakana] wa   nakunatta ga, [[kimi ga
fisherman NOM grilled fish   TOP is.gone   but you   NOM
yaita] **no**] wa   nokotte iru.
grilled NO TOP left   is
'The fish that the fisherman grilled is gone, but the one/those you grilled remains.'

In contrast, speakers reject no pronominalization in NCs:

(14) *[[pro sanma o   yaita] syooko] wa   kieta   ga, [[pro iwasi
          saury ACC grilled evidence TOP is.gone but   sardine
o   yaita] **no**] wa   nokotte iru.
ACC grilled NO TOP left   is
The evidence for grilling saury has disappeared, but that for grilling sardines remains.'

Just as PNCs pattern with NCs, not RCs, with respect to possessor agreement marking in Ainu, PNCs pattern with NCs with respect to no pronominalization:

(15) *[[pro sanma o   yaita] nioi] wa   kieta   ga, [[pro iwasi   o
          saury ACC grilled smell TOP is.gone but   sardine ACC
yaita] **no**] wa   nokotte iru.
grilled NO TOP left   is
'The smell of grilling saury has gone, but that of grilling sardines remains.'

This contrast is independent of the semantics of the head noun. Thus the noun syooko disallows no pronominalization as the head of the NC in (14), but no pronominalization is perfectly acceptable when this noun heads a gapped RC, as in (16):

(16) [[Hanako ga   mituketa] syooko] wa   kieta   ga, [[Taroo ga
Hanako NOM found   evidence TOP is.gone but Taroo   NOM
mituketa] **no**] wa   nokotte iru.
found   NO TOP left   is
'The evidence that Hanako found has gone, but that that Taroo found remains.'

The same is true of the perception noun *nioi* 'smell'. This noun also disallows no pronominalization when it heads a PNC, but it is perfectly acceptable when it heads an RC:

DECONSTRUCTING CLAUSAL NOUN MODIFYING CONSTRUCTIONS / 7

(17) [[kinoo   kaida] nioi] wa kyooretu datta ga, [[kyoo kaida] **no**]
yesterday smelled smell TOP strong   was but today   smelled one
wa   motto kyooretu da.
TOP more strong   is

'The smell that (I) smelled yesterday was strong, but the one I smelled
today is stronger'

A similar contrast is shown by pronominalization using *kes* 'thing, one' in
Korean:

(18) [[Epu   ka   kwuwun] sayngsen] un   epseci-ess-ciman, [[ney
fisherman NOM grilled   fish   TOP disappear-PST-but you
ka   kwuwun] **kes**] un   nama   issta.
NOM grilled   KES TOP remaining is

'The fish that the fisherman grilled is gone, but the one/those you
grilled remains.'

(19) ?[[Kkongchi lul kwuwun] cunke] nun epseci-ess-ciman, saury ACC
grilled evidence TOP disappear-PST-but [[cengoli lul kwuwun] kes]
un nama issta. sardine ACC grilled KES TOP remaining is The evi-
dence of grilling saury has gone, but that of grilling sardines remains.'

(20) ?[[Kkongchi lul   kwuwun] naymsay] nun epseci-ess-ciman,
fisherman NOM grilled   smell   TOP disappear-PST-but
[[cengoli lul kwuwun] **kes**] un   nama   issta.
sardine ACC grilled   KES TOP remaining is

'The smell of grilling saury has gone, but that of grilling sardines
remains.'

Kes pronominalization with NCs (19) and PNCs (20) appears to be slightly
more acceptable than the corresponding Japanese no pronominalization ex-
amples, but when the head element is replaced by the clearly pronominal ***ku***
kes 'that (thing)' the NC and PNC examples become completely unaccept-
able, as in (22), (23), while the RC example is only slightly degraded (21):

(21) ?[[Epu   ka   kwuwun] sayngsen] un   epseciessciman, [[ney
fisherman NOM grilled   fish   TOP disappear-PST-but you
ka   kwuwun] **ku kes**] un   nama   issta.
NOM grilled   that KES TOP remaining is

'The fish that the fisherman grilled is gone, but that one/those you
grilled remains.'

(22) *[[Kkongchi lul   kwuwun] cunke]   nun epseciessciman,
saury   ACC grilled   evidence TOP disappear-PST-but

8 / ANNA BUGAEVA AND JOHN WHITMAN

[[cengoli lul kwuwun] **ku kes**] un nama   issta.
sardine ACC grilled   that KES TOP remaining is

'The evidence of grilling saury has gone, but that one of grilling sardines remains.'

(23)   *[[Kkongchi lul   kwuwun] naymsay] nun epseciessciman,
fisherman NOM grilled   smell   TOP disappear-PST-but
[[cengoli lul kwuwun] **ku kes**] un nama   issta.
sardine ACC grilled   that KES TOP remaining is

'The smell of grilling saury has gone, but that one of grilling sardines remains.'

As in Japanese, the head nouns *cunke* 'evidence' and *namsay* 'smell' freely allow *kes* pronominalization when they head RCs:

(24)   a.   [[Hyenkyeng i   palkyenhan] cunke]   nun
Hyungyung NOM discovered evidence TOP
epseciessciman, [[Chelswu ka   palkyenhan] **kes**] nun
disappear-PST-but Chelsu   NOM discovered KES TOP
nama   issta.
remaining is

'The evidence that Hyungyung discovered is gone, but that which Chelswu discovered remains.'

b.   [[Ecey   mathun] maymsay] nun kanglyelhayss-ciman, [[onul
yesterday smelled smell   TOP strong-PST-but   today
mathun] **kes**] un te   kangkyekhata.
smelled KES TOP more strong

'The smell that (I) smelled yesterday was strong, but that which I smell today is stronger.'

We have seen that two separate phenomena in languages that have been claimed not to distinguish noun complements and relative clauses, in fact distinguish them. We have also seen that these phenomena group together the two types of clausal complements, NCs and PNCs. Why should this be the case? The most straightforward explanation is that the dependent clause in NCs and PNCs is an argument of the nominal head. Arguments of the nominal head trigger agreement and are within the projection that is substituted for by pronominalization. RCs, on the other hand, are outside N' (or, in a DP analysis, NP).

4   Microvariation with respect to apparent island violations

The syntax of the apparent island violations in alleged GNMCC languages such as Japanese and Korean is well studied, but Comrie (1998) and Mat-

sumoto (1997) do not cite this research. In the case of Japanese and Korean, a key insight is due to Yang (1900), Sakai (1994), Han and Kim (2004), Hoshi (2004), who point out that apparent island violations in these languages are analyzable as relativization from major subject position (MSC) outside the island:

(25)　a.　<u>Sono ko　ga</u>　inu ga　hoete　iru. (Japanese)
　　　　　that　child　NOM　dog NOM barking is

　　　　　'It is that child whose dog is barking.'

　　　b.　[[e inu ga　　hoete　iru] ko]
　　　　　　　dog NOM barking is　　child

　　　　　'the child whose dog is barking'

The MSC analysis accounts for microvariation between Korean and Japanese. Han and Kim (2004:325) point out that MSCs are disallowed in Korean with activity verbs (26a). Relativization is disallowed in exactly the same context (26b):

(26)　a.　*Ku ai　　ka　　kangaci ka　　cic-ess-ta.
　　　　　that child NOM puppy　　NOM bark-PAST-DEC

　　　　　'As for that child, the puppy barked.' (Korean, Han and Kim (2004:325))

　　　b.　*[[kangaci ka　　cic-nun]　ai]
　　　　　puppy　　　NOM bark-ADN child

　　　　　'the child such that the puppy was barking'

The contrast between Japanese (25) and Korean (26) shows that apparent island violating relativization is possible just where MSCs are possible in these languages.

The RC pattern corresponding to (25b) is disallowed in Turkish and Sakha altogether (Kornfilt and Vinokurova (to appear)) and also in Ainu. As predicted, these languages lack MSCs. Under the GNMCC hypothesis, there is no particular requirement that RCs contain gaps; thus the ill-formedness of Korean (26b) in just the context where an MSC is also disallowed is not accounted for. Similarly, the existence of the island effects in Sakha and Ainu discussed below is unaccounted for.

Languages with prehead relative clauses also show a range of variation with respect to NC islands, but the variation does not fall along the lines of the supposed GNMCC and non-GNMCC languages. In general, NC islands are easier to violate than RC islands, as predicted by Huang's (Huang (1982)) Condition on Extraction Domains (CED). As we demonstrated in the previous section, NCs behave like complements, while RCs do not. The CED predicts

that complements are generally easier to extract from. When we examine the range of variation, we find that NC islands can be violated in Ainu (27) and Turkish (28) (both non-GNMCC languages), but not in Sakha (29) (supposedly a GNMCC language). This is exactly the opposite of the prediction of the GNMCC hypothesis, which holds that islands effects are less salient in GNMCC languages.

(27) [[ene   SOREKUSU tura-no   oka=an]
      like.this especially   COM-ADV exist.PL=IND.S
      hum-**i**   wen] pe   SOREKUSU nep
      sound/feeling-POSS be.bad thing/person especially   somehow
      a=ronnu   pa ruwe ene   an.
      IND.A=kill.PL PL INF.EV like.this exist.PL

      'The **people** we didn't want as neighbors were killed in that manner.'
      lit. '**People**$_i$ [(such as) especially the **sound/feeling**$_j$ [(such as) to be
      with _____$_i$] is bad]...' (K8109171UP.224-5)

(28) (?)[Ali-nin [[Oya-nın e$_i$ kaç   -acağ   -ı]
      Ali-GEN   Oya-GEN   abscond -F.IND.N -3.SG
      söylenti-sin]-i   Duy -duğ -u] ülke$_i$
      rumor-CMPD.MRKR-ACC hear -IND.N -3.SG country

      'The country which Ali heard the rumor that Oya was going to run away to'

(29) *[Masha [[Misha e$_i$ kuop-put]   suraq-yïn]   isti-bit]
      Masha [[Misha   run.away-PST] rumor-3.SG.ACC] hear-PST
      dojdu$_i$-ta
      country-3.SG

      'the country which Masha heard the rumor that Misha ran away to'

5   Conclusion

We conclude that prehead RCs and NCs are structurally distinct. NCs are complements; they trigger agreement and are included when the N projection is substituted for by pronominalization. RCs are modifiers. Gaps in RCs are constrained by island conditions, subject to independently motivated language-particular properties such as the existence of MSCs. NCs reside in the lexical NP projection, RCs outside of it.

Sources

AB – Bugaeva, Anna. 2004. *Grammar and folklore texts of the Chitose dialect of Ainu (Idiolect of Ito Oda)*. ELPR Series A-045. Suita: Osaka Gakuin University.

K – Kubodera, Itsuhiko. 1977. *Ainu jojishi shin'yō seiden-no kenkyū* [The study of Ainu heroic epics and songs of gods]. Tokyo: Iwanami Shoten.

OI – Oda Ito (1908-2000), informant of the Chitose dialect of Ainu; the author's fieldnotes.

T – Tamura Suzuko. 2000[1988]. Ainugo [The Ainu language], in *Gengogaku daijiten* [Encyclopedia of linguistics, Kōji Takashi, Kōno Rokurō & Chino Eiichi (eds.) Tokyo: Sanseidō. English transl.: The Ainu language, (ICHEL Ling. Studies 29). Tokyo: Sanseidō

TS1 Tamura Suzuko. 1984. *Ainugo shiryō* 1 [Ainu audio materials 1]. Tokyo: Waseda daigaku gogakukyōiku kenkyūjo.

References

Bugaeva, Anna. (to appear) Noun-modifying clause constructions in Ainu. In Matsumoto, Comrie, and Sells (in preparation).

Comrie, Bernard. 1996. The unity of noun modifying clauses in Asian languages. *Pan-Asiatic Linguistics: Proceedings of the Fourth International Symposium on Languages and Linguistics*, January 8-10, 1996, Volume 3, 1077-1088.

Comrie, Bernard. 1998. Rethinking the typology of relative clauses. *Language design* 1: 59-86.

Comrie, Bernard. 2010. Japanese and the other languages of the world. *NINJAL project review* 1: 29-45.

Jackendoff, Ray S. 1971. Gapping and related rules. *Linguistic Inquiry* 2.1, 21-35.

Kornfilt, Jaklin. 1997. *Turkish*. London/New York: Routledge.

Kornfilt, Jaklin and Vinokurova, Nadya. (to appear). Turkish and Turkic complex noun phrase constructions. In Matsumoto, Comrie, and Sells (in preparation).

Han, Chung-hye and Kim, Jong-Bok. 2004. Are There Double Relative Clauses in Korean? *Linguistic Inquiry*, Volume 35.2, 315-337.

Hoshi, Koji. 2004. Parameterization of the external D-system in relativization. *Language, culture and Communication* 33, 1-50. Tokyo: Keio University.

Huang, C.-T. James. 1982. Logical Relations in Chinese and the theory of grammar. Doctoral dissertation, MIT [published 1998 by Garland, New York and London.]

Matsumoto, Yoshiko. 1997. *Noun-modifying constructions in Japanese: A Frame-Semantic approach.* Amsterdam: John Benjamins.

Matsumoto, Yoshiko, Comrie, Bernard and Sells, Peter. (forthcoming) *Noun-Modifying Clause Constructions in Languages of Eurasia: Reshaping theoretical and geographical boundaries (tentative title)*.

Nikolaeva, Irina. (to appear). Noun-modifying clause constructions in Tundra Nenets (tentative title). In Matsumoto, Comrie, and Sells (in preparation).

Saito, M. and Murasugi, K. 1990. N'-deletion in Japanese: a preliminary study. In Hoji, Hajime (ed.), *Japanese / Korean linguistics*, 285-301. Stanford: CSLI.

12 / Anna Bugaeva and John Whitman

Sakai, Hiromu. 1994. Complex NP Constraint and case-conversions in Japanese. In Nakamura, Masaru (ed.) *Current topics in English and Japanese*., 179-203. Tokyo: Kurosio.

Yang, Hyun-Kwon. 1990. Categories and barriers in Korean. Ph.D. dissertation, University of Texas, Austin.