Modification of bare nominals across languages and constructions

The issue In this paper we examine the influence of adjectival modification on bare count nominals (BNs) in object position of have-predicates and what we term have-prepositions (with, without), by looking at corpus data from Dutch and Greek. We argue that there are two ways modification of BNs can be licensed in these environments: (i) if the adjective modifies an inherent property of the N or denotes a subtype of it; (ii) if the modifier is obligatory for reasons of informativity.

*Have-predicates* Espinal & McNally (2011) analyze BNs in object position of have-predicates in Spanish and Catalan as denoting properties. They propose a composition rule to allow BNs to combine with have-predicates. Espinal (2010) is more specific and argues that BNs denote properties of kinds. This predicts that BNs can only be modified by modifiers denoting the subtype of entity the N+modifier is predicated from. Compare (1a) and (1b):

(1a) Per a aquest espectacle necessitaré faldilla llarga/escocesa/de quadres.
    ‘For this event you will need a long skirt/a kilt/a plaid skirt.’

(1b) * Necesitien faldilla feta a Singapur/ neta.
    ‘They need a skirt made in Singapore/ a clean skirt.’

This paper extends the investigation of modified bare nominals to other languages and other constructions in which a have-relation is present.

*Have-prepositions* Borhen (2003) already noted that the Norwegian prepositions med (‘with’) and uten (‘without’) are similar to have-verbs in introducing a have-relation (compare (2a, 2b)).

(2a) Denne bilen har stor motor.
    this car-DEFSUFF has big motor
    ‘This car has a big motor.’

(2b) Dette er en bil med stor motor.
    this a car with big motor
    ‘This is a car with a big motor.’

We present data from Greek confirming this parallel. The following examples show that both have-verbs and have-prepositions allow doubling (3a, 3b) of the BN.

(3a) O kathighitis su ehi thio ton ipurgho tis pedhias.
    the teacher of.yours has uncle the.GEN education.GEN
    ‘Your teacher has an uncle who is the minister of education.’

(3b) Itan apo plusia ikoghena, me thio arhipiskopo tis eladhias
    was from rich family with uncle the archbishop the.GEN Greece.GEN
    ‘He was from a rich family, with an uncle who is the archbishop of Greece.’

The parallel between have-verbs and have-prepositions supports a common analysis for these two constructions. It also enables us to broaden the cross-linguistic scope of our research not only to Greek, but also to Dutch, which does not allow BNs as complements of have-predicates, but which does allow them as complements of the prepositions met (‘with’) and zonder (‘without’). The semantics of have-prepositions proposed by de Swart (2012) involves the lexical rule in (4), which allows the preposition to combine with a property-denoting BN:

(4) Input: With $\lambda y. P \land x [P(x^k) \land \exists e [\text{Accompany}(e) \land \text{Ext}(e) = x \land \text{Int}(e) = y]]$
    Output: With $\lambda P \land x [P(x^k) \land \exists e [\text{Accompany}(e) \land \text{Ext}(e) = x \land \exists w [C(w)]]$
          $[\exists e' \text{Depend}(e,e',w) \land \text{Have}(e') \land \text{Have}(e') = \text{Int}(e)]]$

This analysis predicts that the constraints on modification we observed in (1b) also hold for BNs that combine with have-prepositions.

Corpus data We did corpus research on Greek have-verbs and have-prepositions (Hellenic National Corpus) and Dutch have-prepositions (Eindhovencorpus, Corpus Gesproken Nederlands) to test this hypothesis. For both languages we looked for combinations of with and without (Dutch: met, zonder; Greek: me, horis) + a BN modified by an adjective. For
Greek we also searched for modified BNs as complements of the have-predicates eho (‘to have’), forao (‘to wear’), kroutine (‘to hold’) and hrisimopio (‘to use’). Modification in these constructions was relatively rare, especially for without. Therefore, we focus only on the Greek have-verbs and the Greek and Dutch with cases.

**Results** In all three constructions we did indeed find cases of subtype modification:

(5) Dan moet je een föhn met koude stand hebben. (Dutch met)
‘Then you need a hair dryer with a cold setting’.

(6) Ekini iordhaniko dhyavatirio. (Greek me)
‘She had a Jordanian passport.’

(7) [...] ipe enas alos adras me neioirkeziiko kustumi. (Greek have-predicate)
‘[…] said another man in a New York suit.’

However, for both Greek and Dutch the empirical picture was more complicated than what would be expected based on Espinal’s analysis. For the Greek have-verbs the cases involving subtype modification constituted only 42% of the total, for Greek me 54% and for Dutch met 29%. We also found a substantial amount of cases that did not involve subtype modification, many of which involved obligatory modification (8)-(10).

(8) “Goed”, zei ze met *(volle) mond. (Dutch met)
‘Alright’, she said with her mouth full.’

(9) Enas kau boi me *(anoito) onoma. (Greek me)
‘A cowboy with a silly name.’

(10) Hrisimopiti *(kenurya) velona ya kathe enesi. (Greek have-predicate)
‘Use a new needle for each injection.’

**Analysis** For the cases not involving subtype modification, a relevant factor is the analytic vs. non-analytic distinction (Müller et al. 2010): if the modified noun denotes an analytic property, describing a mereological relation, modification is likely to be obligatory due to an informativity requirement. If it denotes a non-analytic property, modification is not likely to be obligatory. A χ² analysis showed that this effect was significant in all three constructions: Dutch met χ² (1, 68)=13.78, p<.001, Greek me χ² (1, 63)=25.98, p<.001 and Greek have-verbs χ² (1, 126)=64.59, p<.001. The fact that all three constructions display similar modification patterns constitutes another piece of evidence confirming the parallel between have-verbs and have-prepositions. The obligatoriness of modification in the analytic cases can be captured by a triviality filter along the lines of Winter (2005). In the non-analytic cases the adjective most often targets the color, material or shape of the BN, which are part of the noun’s qualia structure (Pustejovsky 1995). We propose to extend the class of non-obligatory licensed modification from just subtype modification to a somewhat broader category including modification of such inherent features of the BN.

**Conclusion** The paper provides evidence in favor of a parallel analysis of have-predicates and have-prepositions. Cross-linguistic data from Greek and Dutch support the parallel, showing that BNs in these constructions display similar constraints on modification. Besides the subtype modification constraint proposed by Espinal (2010), we find that modification of a broader set of characteristic features may be involved. For analytic properties, modification is even found to be obligatory for reasons of informativity. The investigation of modification thus provides new insights into the semantics of bare nominals.