

The English Binominal NP as a Nominal Juxtaposition Construction

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Kim, Jong-Bok and Peter Sells. 2010. The English Binominal NP as a Nominal Juxtaposition Construction. *English Language and Linguistics* 16.2, 135-162. English Binominal NPs (BNP) (e.g., *a hell of a problem*) are of empirical and theoretical interest due to their complex syntactic and semantic properties. In this paper, we review some basic properties of the BNP construction, focusing on its headedness, semantic relations, and the role of the preposition *of*. We argue that these properties suggest an account in the spirit of construction grammar. In particular, we show that English BNP is a nominal juxtaposition construction whose special syntactic constraints are linked to semantic relations like a subject-predicate relation.

Key Words: binominal, juxtaposition, headedness, construction, predication, construction grammar

1. Introduction

English Binominal NPs (BNP) with the skeletal structure of 'Det1 N1 *of* Det2 N2' display many intriguing syntactic and semantic properties. Examples in (1) are naturally occurring BNP data extracted from the BNC:

- (1) a. It's been [a hell of a day] at the office.
- b. And it introduced her to Budapest, [a jewel of a city].
- c. And you won't be saying anything to [that ponce of a boss] you've got, Howard?

- d. Rune nodded [his shaven dome of a head].
- e. She had [a skullcracker of a headache].
- f. A door opened; and into the assessment room stepped [a giant of a man].

As noted by Aarts (1998) and others, these binominal NP constructions involve two nominals N1 and N2 as well as special determiners, and further display complex syntactic and semantic properties. One of the main syntactic issues concerns the headedness of the phrase: even though N1 seems to be the syntactic head, there are many cases where N2 behaves like the head, in particular as the semantic head of the whole construction. The status of the preposition *of* is also controversial (cf. Napoli 1989, Van Eynde 2005, Owen 2007). Is the *of*-marked PP selected by the N1 or is it a linker for a special grammatical purpose (Aarts 1998, Den Dikken 2006)? Semantic issues also arise: what is the semantic relation between N1 and N2? How and why does the first noun N1 function as the predicate of the second noun N2? What kind of constraint can ensure this semantic relation in terms of compositionality?

In this paper, we try to answer these questions on the BNP construction, starting from a review of its grammatical properties based on the literature and our corpus search. We then offer a construction-based analysis in which the meaningless preposition *of* functions as a juxtaposition linker between the two NPs.

2. Some Basic Properties

English BNP constructions, with the sequence of 'Det1 N1 *of* Det2 N2', have intriguing properties that cannot fully be reduced to those of other general constructions. Some of these syntactic, semantic, and pragmatic properties can be summarized as following:

Property 1: The first clear property of the construction is that the preposition *of* is obligatory. Consider the following attested examples:¹⁾

- (2) a. I had a hell *(of) a time on this tour.
 b. And it introduced her to Budapest, a jewel *(of) a city.
 c. I don't think it will be too bad a dose, but it's a beast *(of) a complaint.

In these examples, the preposition *of* cannot be either replaced by another or omitted as in *a couple (of) problems* or *both (of) these problems*. The obligatoriness of the *of* tagged PP hints that it is subcategorized (cf. Napoli 1989).

Property 2: The types of the first determiner Det1 can vary. The canonical Det1 is an indefinite as in (3), but definite articles are also possible. Observe the following attested examples:

- (3) a. He is [**a** hulk of a man] in his middle fifties.
 b. [**Some** dragon of a receptionist] refused to let him see her boss without an appointment.
 c. This situation would be [**one** humdinger of a funny story] to tell his city friends over a drink or two.
- (4) a. [**The** ghost of a smile] glimmered in his eyes.
 b. I suspect she'd been following [**that** fool of a carrier].
 c. She was to marry this mountebank, [**this** hypocritical toad of a Sir Thomas].
 d. And she was old, antique. Deep lines grooved [**her** prune of a face].

1) We could find many uses of *a hella* in Google, which is taken to be a slang form of *a hell of a lot of*.

As seen in (3) and (4), Det1 can be not only an indefinite but also a definite article including a possessive or demonstrative determiner. One peculiar property, as noted in Aarts (1998), is that when N2 is a proper name, then N1 cannot be an indefinite article:

- (5) a. *a creep of a James
 b. *an egotist of an Alex

However, this restriction disappears when Det1 is definite as in *that creep of a James* or *that clever little wretch of a Rebecca*.

Property 3: Det1 can be in many different forms, but the type of Det2 is fixed. Det2 must be the indefinite article *a/an*, and no other indefinite determiner is possible.

- (6) a. a hell of **a**/*some/*any/*one day
 b. this slip of **a**/*her/*that/*this/*some/*any/*the/*one girl

To some British speakers, Det2 need not appear when N1 and N2 are plural. The BNC provides us with some plural examples with no article in Det1 and Det2:

- (7) a. It also has [\emptyset jewels of \emptyset villages] like West Burton and Askrigg and the fine falls of Hardraw and Aysgarth.
 b. The all-powerful International Cricket Council showed themselves to be [\emptyset wobbly jellies of \emptyset men] by shaking uncontrollably under pressure from the tainted tourists.
 c. There was a shadowy vagueness about the rest with [**its** hulks of \emptyset desks] and clutter of baskets and papers.

In these examples, both N1 and N2 are plural. The corpus search has failed to identify corpus examples where the two nominals are different in the number value. What this means is that there is a total agreement between the number value of N1 and N2.

Property 4: As noted in the literature including Aarts (1998) and Keizer (2007), N2 functions as the semantic head that satisfies the selectional restrictions of the verb. However, it is not difficult to find examples where either N1 or N2 alone can satisfy the selectional restrictions:

- (8) a. We should have fired $\left\{ \begin{array}{l} \text{that plonker of a plumber.} \\ \text{that plonker.} \\ \text{a plumber.} \end{array} \right\}$
- b. She doesn't want to talk to $\left\{ \begin{array}{l} \text{this idiot of a prime minister.} \\ \text{this idiot.} \\ \text{a prime minister.} \end{array} \right\}$

In such literal cases, either N1 or N2 can be the semantic head. This does not mean that one of the two nominals can always satisfy the selectional restrictions. Observe the following contrast (data from Aarts 1998):

- (9) a. I met $\left\{ \begin{array}{l} \text{a colourless little mouse of a woman.} \\ \text{*a colourless little mouse.} \\ \text{a woman.} \end{array} \right\}$
- b. I detest $\left\{ \begin{array}{l} \text{that rotten little fig of a human being.} \\ \text{that rotten little fig.} \\ \text{*a human being.} \end{array} \right\}$

In (9a) in which N1 has rather a figurative reading, it is 'woman' not 'mouse' that can satisfy the selectional restrictions of the verb *met*. Meanwhile, in (9b) N2 has no salient information. In this case, it is rather unnatural to use N2 with N1 information, implying that N1 contributes to the core meaning of the overall NP structure. This is also evidenced by the possibility of using N1 alone. In this sense, we can assume that N1 fulfills selectional restrictions.

The flexibility in terms of selectional restrictions thus indicates that the availability of metaphorical interpretations also influences the semantic headedness (cf. Aarts 1998, Keizer 2007), and further implies that when the two nominals go together, the intended meaning can be obtained.

Property 5: In terms of meaning, N1 and N2 are in a reverse subject-predicate relation. That is, the first noun N1 denotes a property or quality that is predicated of the second noun N2. The evidence of this reverse subject-predicate relation can be seen from the possibility of paraphrasing the BNPs as copular constructions (Quirk et al. 1985):

- (10) a. a hell of a day — the day is a hell
 b. a jewel of a city — the city is a jewel
 c. a martinet of a mother — the mother is a martinet

As noted by Napoli (1989), this kind of predication relation also explains the agreement in selectional restrictions, semantic gender, and number of the two nominals:

- (11) a. *this nitwit of a building/*This building is a nitwit.
 b. *a prince of a woman/*A woman is a prince.

The first noun N1 thus ascribes a property to the second noun N2 which is invariably evaluative (cf. Aarts 1998). This also explains why we can

paraphrase the whole construction either as a copular or an modifying construction.²⁾

Property 6: The first determiner Det1 can scope over not only N1 but also N2. Consider examples where the Det1 is a possessive pronoun or possessive 'apostrophe + s' form (cf. Austin 1980, Keizer 2007):

- (12) a. He had been sitting quietly in [his hovel of a home].
 b. You are old enough to get your own food, like [your fool of a father].
 c. The boy knelt down by [Philip's wreck of a trap].

In terms of meaning, the possessive pronoun *his* or the possessive form *Philip's* functioning as Det1 cannot be linked to *hovel* or *wreck*. Each is linked to the second noun N2, *home* and *trap*. This kind of scope relation can be further attested by the paraphrases (Quirk et al. 1985, Aarts 1998, Huddleston and Pullum 2002, Keizer 2007):

- (13) a. His home is a hovel.
 b. Your father is a fool.
 c. Philip's trap is a wreck.

2) In a similar manner, the BNP can be paraphrased as an Adj-N phrase (Quirk et al. 1985):

- (i) a. a fool of a policeman — a foolish policeman
 b. that idiot of a prime minister — that idiotic prime minister
 c. a devil of a row — a devilish row

Though this paraphrasing does not indicate a predication relation, it shows us that N2 is the semantic head.

Property 7: Just like the possible scope of Det1, the pre-N1 modifier can also scope over either N1 or N2. Either N1 or N2 can have a premodifier:

- (14) a. I had an [absolute] hell of a day.
 b. I have come a hell of a [long] way.

When the pre-N1 modifier has an intensifying function as in (15a), it scopes over N1 only, but when it has a descriptive one as in (15b), it can scope over the overall construction (cf. Keizer 2007). Consider the following corpus examples:

- (15) a. But I ain't scared of that [great [ox]] of a matron.
 b. She was not being told the truth by that [apologetic] mouse of a [doctor].

The intensifying adjective *great* is linked to the N1 *ox* whereas the descriptive *apologetic* modifies the entire following structure. Aarts (1998) also provide examples where the pre-N1 modifier is linked to N2:

- (16) a. another bitchy iceberg of a woman
 b. that clumsy oaf of a newscaster
 c. that senseless maniac of a driver

In pragmatic terms, the adjectives *bitchy*, *clumsy* and *senseless* are linked to the N2, *woman*, *newscaster* and *driver*, respectively. In addition, corpus examples also give us what appear to be truly ambiguous cases:

- (17) a. I can see that [little] bastard of a chaplain laughing again.
 b. He didn't want to sit gossiping in the kitchen with that [old] slob of a cousin.

In these examples, the adjectives *little* and *old* could plausibly be linked either to N1 or N2. Like the possible scope of Det1, the pre-N1 modifier is flexible in terms of what it can scope over.

Property 8: The PP and the second NP are frozen in terms of syntactic operations. That is, the *of* tagged PP cannot be extraposed or the prepositional object NP cannot be involved in *wh*-questions:

- (18) a. [A monster of a machine] was delivered.
 b. *A monster was delivered of a machine.
- (19) a. She had [a skullcracker of a headache.]
 b. *What did she have a skullcracker of?

Just like the complement PP, the *of*-tagged PP in the BNP cannot be extraposed (Napoli 1989). As in (19), we can also observe that the object of the preposition *of* cannot be *wh*-questioned either. The freezing effect of the construction can also be observed from the impossibility of coordinating the *of* PP (cf. Aarts 1998):

- (20) a. *I had a hell [of a day] and [of a time].
 b. *Into the assessment room stepped a giant [of a man] and [of a woman].

Syntactically, there appears to be no reason not to coordinate two PPs. Note that the prepositional object NP cannot be coordinated, either:

- (21) a. *I had a hell of [a day] and [a time].
 b. *Into the assessment room stepped a giant of [a man] and [a woman].

These observations once again indicate that the BNP is really a fixed construction with high-level morpho-syntactic constraints.

3. On Headedness and the Preposition *of*

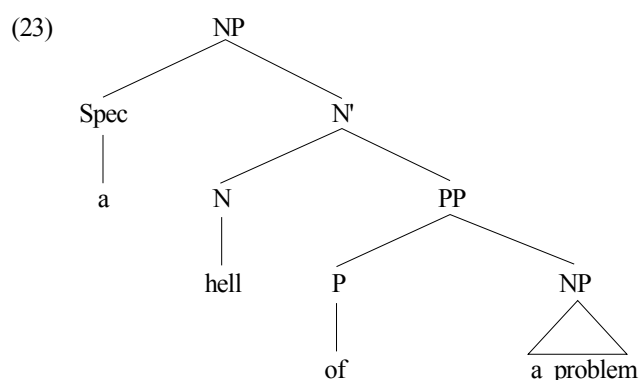
In dealing with the BNP construction, the first puzzle concerns the head in the overall structure. As we have discussed so far, the two nominals in the BNP both share head properties and the issue of headedness has led to different treatments of the preposition *of*. The three main approaches we have seen can be summarized as following:

- (22) Treatments of the preposition *of*
- a. as a preposition selecting the following NP headed by N2 (Abney 1987, Napoli 1989)
 - b. as a pragmatic marker forming a unit with *a/an* and not the following N2 but the preceding N1 (Aarts 1998, Keizer 2007)
 - c. as a prepositional complementizer F selecting a small clause AgrP (Kayne 1994, Den Dikken 2006)

Each of these three approaches, assigning a different status to the element *of* has its own merits. In what follows, let us consider these three main, previous approaches with respect to the headedness and preposition *of*.

3.1. N1 as the Head and Canonical P

A natural step would be to take N1 as the head of the whole phrase. That is, as suggested by Napoli (1989), we could assume that N1 selects the *of* PP as represented in the following:



The basic motivation for the N1-headedness stems from the obligatoriness of the PP, as we have noted earlier. In addition, subject-verb agreement may support the idea that N1 is the head. As we have noted, both N1 and N2 are canonically singular, which makes it hard to decide which of the two controls the verb agreement when the composite construction is used as the subject. An implication for the subject-verb agreement fact can be found from Keizer's (2007) examples. As given in the following, when the singular N2 denotes a group allowing for a plural interpretation, N1 can be plural too:

- (24) a. Those prejudiced fools of a jury were/*was totally unreliable.
 b. The jury were/was a bunch of prejudiced fools.
 c. That jury *were/was totally unreliable.

Collective nouns like *jury* can be interpreted either as singular or as plural as shown in (24b), but when its determiner is a demonstrative like *that* in (19c), the agreeing verb needs to be singular. This partially supports the headedness of N1 in the BNP.

The obligatoriness of the PP and subject-verb agreement thus may indicate N1 is the head, but there are many cases showing that N2 functions as the head. As noted earlier, N2 is the semantic head together with the first noun

N1 being reinterpreted as an adjectival element (cf. Kim 2004, Kim and Sells 2008):

- (25) a. that fool of a doctor — that foolish doctor
 b. a hell of a problem — a hellish problem

The semantic locus of the overall structure thus seems to be the second noun N2. The scope possibility of Det1 and pre-N1 modifier has also hinted that N2 is the semantic head:

- (26) a. our sod of a cleaner
 b. your jerk of a brother

The possessive noun *our* and *your* here specifies N2, *cleaner* and *brother*, not the first noun, *sod* or *jerk*, respectively.

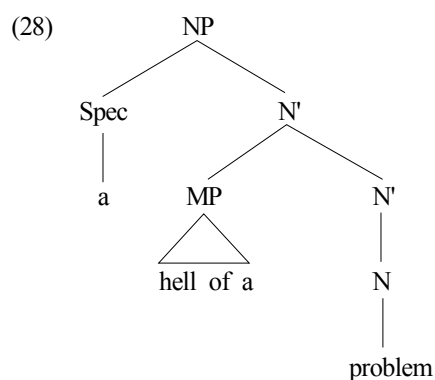
As we have seen earlier, the obligatoriness and omissibility of the two nominals with respect to selectional restrictions also indicate that the headedness properties are not confined to N1 but distributed to N2 too. A clear contrast can be observed once again:

- (27) a. That will make { a hell of a noise.
 a hell.
 a noise. }
- b. I consider Maria { a pearl of a sister.
 a pearl.
 *a sister. }
- c. That is { a pig of a road.
 *a pig.
 a road. }

Even though it is rather controversial to adopt selectional restrictions as a determinant for the headedness, we can observe that either N1 or N2 can satisfy selectional restrictions, indicating that the properties of the semantic locus are distributed to both.

3.2. N2 as the Head and Grammaticalized P

As discussed in the previous section, the semantic locus directs us to the N2 headedness. In particular, on the basis of the criteria for headedness put forward by Zwicky (1985) and Hudson (1987), Aarts (1998) assumes that the syntactic and semantic head of the BNP is the second noun N2 as represented in the following structure:



Together with the assumption that the sequence 'N1-*of*-a' as a whole behaves like a modifier phrase (MP), the analysis Aarts (1998) proposes can solve the issues raised from the N1-head analysis. First of all, it can account for the issue on the scope of the pre-N1 adjective as well as the scope possibility of Det1. Since the sequence 'N1-*of*-a' is a type of modifier, the higher Det1 or pre-N1 modifier can be linked either to N1 or to N2. Another claimed

advantage of this kind of analysis seems to come from coordination and extraction data. In accordance with the structure, there is neither PP nor NP constituent within the BNP since *of* and *a* are not a constituent. This explains why there is neither PP coordination nor PP extraposition, according to Aarts (1998).

Even though this analysis reflects the intuitive idea of the semantic headedness and may explain such freezing effects, it encounters important empirical and theoretical questions. The immediate question arises from how the sequence 'N1-*of-a*' forms a constituent? There is no obvious synchronic or diachronic evidence for this position. Aarts (1998) assumes that *of-a* is a unit functioning as a pragmatic marker that can be left out, existing as a syncategorematic form in adjunct position. Unless we accept the view that the sequence *hell of a* corresponds to the adjective *hellish* (cf. Aarts 1998), nothing indicates that the former is a constituent other than the semantic reason. The analysis also does not ensure how we can obtain the subject-predicate relation in the BNP.

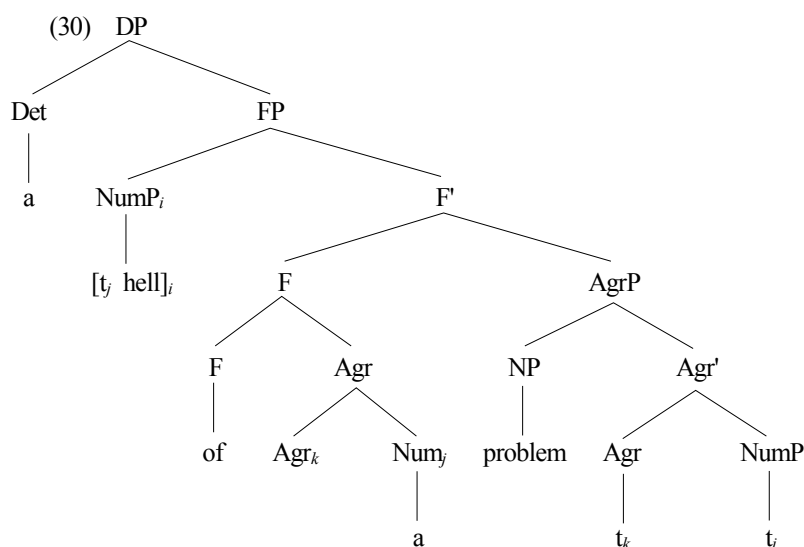
3.3. Functional Head and Complementizer P

As repeatedly mentioned, one clear semantic relation between N1 and N2 in the BNP construction is a subject-predicate relation (Kayne 1994, Aarts 1998, Den Dikken 2006). Reflecting the subject-predicate relation between N1 and N2, Kayne (1994) assumes that N1 undergoes predicate inversion within a small clause, as represented in the following structure for the BNP *that idiot of a doctor*:

(29) that [_{D/PP} [_{NP} idiot_t] [_{of} [_{IP} a doctor I⁰ t_j]]] ...

In this structure, Kayne (1994) takes the preposition *of* as a 'prepositional

determiner (D/P)' selecting an IP. In the same spirit, Den Dikken (2007) further develops this idea with the supposition of additional functional projections (Den Dikken 1995, 2006):



As given here, similar to Kayne (1994), the preposition *of*, designated as F, selects the small clause AgrP in which the nominal *problem* is the subject and its predicate is NumP *a hell*. Complex movement operations are involved here to generate the output: a movement operation first adjoins Agr to the functional head F, followed by adjoining the head Num *a* to Agr again. In the meantime, the remnant of NumP *hell* moves to the specifier position of FP.³⁾

This analysis again assigns a special status to the preposition *of*. It is not a simple preposition or syncategorematic element, but a functional element

3) As noted in Aarts (1998), to generate a definite BNP like *that crazy crackpot of a caretaker* where the pre-N1 modifier *crazy* is liked to N2 *caretaker*, this PI (predicative-inversion)-based movement analysis requires five movement operations: movement of Agr to F, movement of the indefinite article *a* preceding N2 to F, movement of NumP to Spec-of-FP, and movement of AgrP to Spec-of-DP at LF via Spec-of-AP.

selecting a small clause. This assumption further places no commitment to the headedness of the NP. The analysis is straightforward in representing the predication relation between N1 and N2. However, other than this advantage, the analysis is strongly theoretically-based. Nothing motivates the movement operations and no constraint can ensure the property of Det1 or evaluative function of N1. The analysis does not address the issue of syntactic freezing effects.⁴⁾

Unless we introduce additional constraints, it cannot explain why the BNP cannot be involved in extraposition or coordination. This semantic-based analysis thus fails to address the regularity and idiosyncrasies of the BNP construction.

4. A Constructional Perspective

4.1. BNP as an NP-of-NP Juxtaposition Construction

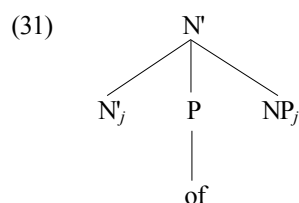
We now turn to an account of the BNP which takes a slightly different approach from any of the accounts summarized above, aiming to account for the general as well as the idiosyncratic properties of the construction.

- There are two nominals in contiguity with each other though the preposition is intervening.
- Neither nominals can be clearly identified as the head of the whole phrase.
- Elements in the BNP are frozen in the sense that neither N1 nor N2 can be involved in a movement operation. They observe island constraints like the Coordinate Structure Constraints.

4) See Aarts (1998) for problems of Den Dikken's (2006) analysis of the binominal construction.

- The two NPs are parallel in many respects. The two nominals agree in number, semantic gender, and selectional restrictions.
- Det2 can be marked only with the indefinite article *a/an*.
- The two NPs entertain a predication relation in which N1 has an evaluative function of N2.

The three previous analyses capture some of these properties, but not all. What we propose here is that the BNP is a type of nominal juxtaposition construction associated with these idiosyncratic properties.⁵⁾ That is, we assume that the BNP is a juxtaposition of two nominal expressions linked by the preposition *of* with the following syntactic skeleton:



This constructional form means that the preposition *of* is meaningless but just functions as the linker between the two nominal phrases, N' and NP (cf. Jackendoff 1970). The juxtaposed elements are not exactly the same category in terms of categorical values, but are the same in terms of juxtaposing nominal, phrasal elements. This simple syntactic constraint is not enough. This syntactic form is associated with higher morphosyntactic, semantic and pragmatic constraints such as Det2 needs to be marked with *a/an*, N1 and N2 are in a predication relation, and so forth (cf. Hallman 2004). Reflecting these idiosyncrasies, we assume that English introduces the BNP construction linked with the syntactic and semantic constraints in Figure 1.

5) Extensive uses of nominal juxtaposition construction can be found in Australian languages. These languages exhibit a substantial amount of flexibility as to how nominal sequences are to be interpreted semantically (cf. Nordlinger and Sadler 2010).

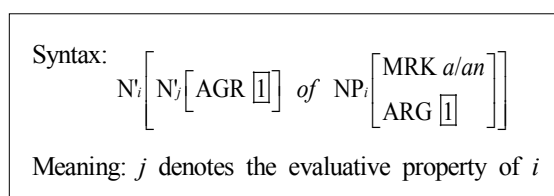
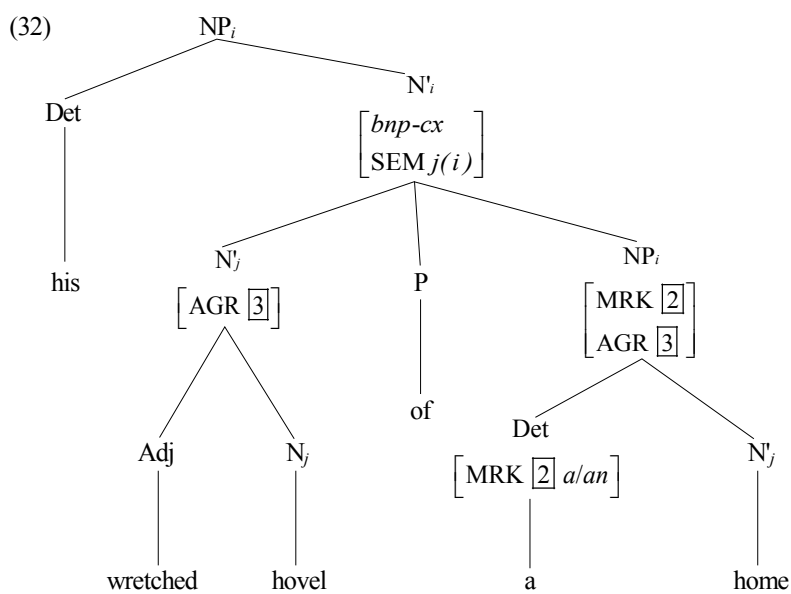


Figure 1: BNP Construction in English

The constructional constraint basically tells that two nominal phrases with identical agreement (AGR) features can be linked by the preposition *of*. This resulting juxtaposition induces a predicative relation between the two in which the first nominal (j) denotes an evaluative property of the second nominal (i). Note that this juxtaposition does not assign any syntactic headedness property to the two. What it says is that the index value of the composite N'_i is identical to the second NP_i , implying that it is the semantic head. Consider an exemplar structure:



As shown in the structure, the two nominal phrases *wretched hovel* and *a home* are linked by the preposition. The constructional constraint in Figure 1 ensure that these two nominal phrases have the identical AGR (number and gender) value, and further that the second NP is marked with the indefinite article *a/an*. The index value of the whole NP structure (*i*) is identical with the second NP, ensuring its semantic headedness. The semantic value (SEM) also shows that the two nominals are in a subject-predicate relation.

Note that the present analysis allows a more complex BNP structure like the following:

- (33) a. that [destroyer of education] of [a minister]
 b. this [manipulator of people] of [a mayor]
 c. my [true defender in need] of [a husband]

The noun *destroyer* and *manipulator* requires its own complement *of education* and *of people*. This N' is juxtaposed with the indefinite NP. However, the analysis does not license examples like the following:

- (34) a. *that [destroyer of education] of [the minister]
 b. *this [manipulator of people] of [the mayor]
 c. *my [true defender in need] of [the husband]

This kind of complex N1 structure weakens the analysis of Aarts (1998) in which the 'N1 + of + a' sequence forms a constituent MP since the N1 needs to become a more complex one before it forms a constituent with *of* and *a* in Aarts (1998).

Note that though NP2 has a rather stricter constraint in that it must be marked with the indefinite article, there is no constraint other than the AGR value. This will license a more complex NP examples like the following:

- (35) a. Don't forget we've both done this a hell of a lot more times than you have!
 b. There was a hell of a lot of smoke.

It is evident that *a lot of* or *a lot* here forms a constituent. The indefinite article *a* here thus forms a constituent with the following expressions not with the preceding elements, further weakening Aarts' (1998) analysis.

Note that our juxtaposition construction shares the syntactic properties of the asyndetic coordinated constructions in that neither nominal can be clearly identified as the head of the phrase. Like other types of juxtaposed constructions including coordinations and adpositions, the BNP has sequences of nominals fulfilling the same grammatical function, neither of which is syntactically dependent upon the other. Two nominals of the same type are combined into a larger unit, the BNP construction. Observe that in fact the BNP can be repeated as in (36) (data from den Dikken and Singhapreecha 2004):

- (36) [that asshole of [an idiot of a doctor]]

The generation of such a recursive BNP is straightforward within the juxtaposition approach proposed here. However, it would not generate the following structure:⁶⁾

- (37) ??that asshole of that idiot of a doctor

One of the strong constraints in the BNP construction is that the second determiner Det2 is indefinite. This leaves *that asshole of an idiot* as the only possible constituent.

6) Such an expression might be improved if one is being really emphatic.

Let us now look at some of the details which emerge from the constructional analysis above, linked in semantics to a predication relation within the evaluative function.

First, this analysis can address the issues concerning the headedness of the overall structure. One consensus is that N1 has a syntactic head whereas N2 carries the semantic head properties. The constructional constraint in Figure 1 ensures that the second NP is the semantic head by the percolation of its index value to the resulting composite NP.

One intriguing property of the BNP is, as noted earlier, that neither the PP nor the second NP can be involved in dislocation constructions such as extraposition or *wh*-fronting:

- (38) a. A monster of a machine was delivered.
 b. *A monster was delivered [of a machine].
- (39) a. *What (kind of politician) do we have an idiot of?
 b. *What was there a hell of?

The impossibility of extraposing *of a machine* in (38a) may support the idea that the PP in the BNP is a complement, considering the similar behavior of the true PP complement:

- (40) a. A student of linguistics came to see me yesterday.
 b. *A student came to see me yesterday [of linguistics]

However, the *wh*-question in (41) appears to support a different direction since a complement but not a modifier can be canonically *wh*-questioned:

- (41) a. What branch of physics are you a student of?
 b. *What kind of hair are you a student with?

The extraposition and *wh*-question data once again tells us that the *of*-flagged PP cannot be simply identified either as a complement or a modifier. The solution that Aarts (1998) and Keizer (2007) suggest is that since the string 'N1 + *of* + *a*' is a constituent, neither PP nor NP after the preposition *of* cannot be involved in any dislocation process.

Unlike such an ad hoc account for the freezing effects, the present analysis gives us a simple, viable answer. In the present analysis, the frozen properties stem from the coordination-like juxtaposition. Like coordination structures governed by the coordinate structure constraint (CSC), no element in the juxtaposed element can be involved in movement or dislocation processes. The present analysis thus naturally predicts examples like the following too (data from Abney 1987):

- (42) a. *[Of a lawyer], he was a fool __.
 b. *[Of a girl], she was a little slip __.
- (43) a. *[That fool __] showed up of a lawyer.
 b. *[A little slip __] came in of a girl.

The movement or topicalization of the PP in the BNP is not possible not because of the constituent problem but because of the juxtaposition.

Aarts (1998) offers coordination examples as evidence for treating the PP in the BNP as not a constituent but positing the string 'N2 + *of* + *a*' as a constituent:

- (44) *She called him a bastard [of a husband] and [of a father].

Our constructional constraint does not license the repetition of the second NP as binary coordinations like *neither A nor B* or *either A or B*. The impossibility of recursion thus has nothing to do with the constituenthood.

A strong argument for the constructional approach may come from the semantic relation between the two NPs. Nothing in the structure indicates that the two NPs are in a predicate relation. As noted in Zwicky (1995) and others, there are numerous uses of the preposition *of*. Consider some of the examples:

- (45) a. a few of these problems, two/some of your best friends
 b. both (of) these problems, all (of) your best friends
 c. a lot of problems/nonsense
 d. a couple (of) problems
 e. a cup of tea, three sheets of paper

All these constructions appear to be alike but are different with respect to the restrictions on the prepositional object NP. In addition, we can observe that possible semantic relations are also almost unpredictable:⁷⁾

- (46) a skirt of leather, the problem of bank failures, the department of student affairs, the secretary of the society, a photograph of my dog, the restoration of old paintings by artisans, the disappearance of the dodo

The semantic relation between two nominals can be part-whole, possessive, membership, direct object of the transitive, or the subject of intransitives. The BNP is one of these constructions linked by the preposition *of* and associated with a peculiar semantic relation.⁸⁾

In this paper we have shown that the BNP is a type of NP-*of*-NP construction with high-level constraints on (morpho-syntactic) form and (grammatical) functions. One interesting point to note here is that Jackendoff's

7) See Kim and Sells (2009) for the appearance of the preposition *of* in examples like *so big of a mess*.

8) At this point, we do not commit ourselves to the claim that these are also types of juxtaposition.

(2008) observation that English uses a great number of N-P-N construction (cf. Culicover 1997, Beck and Stechow 2006, De Smedt et al. 2007):

- (47) hand over hand, hand in hand, day by day, dollar for dollar, face to face, term paper after term paper, book upon book

Each of these constructions here has its own associated meanings such as succession, matching, transition, and comparison.⁹⁾ Even such constructions license phrasal juxtaposition:

- (48) a. one telephone pole after another
 b. miserable week after miserable week
 c. picture of Bill after picture after Bill

Such examples imply that English might have a variety of nominal juxtaposition constructions.¹⁰⁾

9) Jackendoff (2008) notes that these N-P-N constructions are highly constrained. For example, the participating nouns cannot be mass nouns, cannot have determiners, cannot be plurals, and cannot have postmodifiers, and so forth.

- (i) a. no mass noun: *water after water, *dust for dust
 b. no determiners: *the man for the man, *a day after a day
 c. no plurals: *men for men, *books after books
 d. no postmodifiers: *father of a soldier for father of a soldier

See Jackendoff (2008) for further discussion.

10) As noted by Den Dikken and Singhapreecha (2004), English *of* is similar to French *de* or Thai *l^hii* in that it is meaningless but the two NPs surrounding it have a special semantic relation:

- (i) a. une pizza chaude
 b. une pizza de chaude
 a-FEM pizza DE hot-FEM
 'a hot pizza'

As suggested here, like French, many languages optionally introduce meaningless elements as linkers of two nominals.

5. Conclusion

In this paper we have seen that the English BNP construction displays its constructional regularity as well as idiosyncrasy. This lends ourselves to an account in the spirit of construction grammar, in which a specific syntactic form matches with a special meaning.

We have claimed that the BNP is a nominal juxtaposition construction linked by the marker *of*. This proposal departs from the traditional analyses treating the preposition *of* as a canonical preposition (Napoli 1989) or as a special grammatical marker consisting the complex unit 'N1 + of + Det2' (Aarts 1998, Keizer 2007). This view is also different from the one where the preposition is taken to be a prepositional determiner (Kayne 1994) or a functional element F (Den Dikken 2006). Our juxtaposition analysis is thus treating the BNP as an 'asyndetic coordinated construction' in which the headedness properties are distributed into two nominals N1 and N2, and where the two nominal NPs are linked by the meaningless preposition marker *of*. This construction is also linked with a special semantic function, that is, a predicate relation between two nouns. We have seen that the regularities and idiosyncrasies of the BNP construction support a construction-based approach in which a special syntactic form is linked to certain grammatical properties (Fillmore et al. 1988, Goldberg and Jackendoff 2004, Culicover and Jackendoff 2005, Goldberg 2006).

References

- Aarts, Bas. 1998. Binominal Noun Phrases in English. *Transactions of the Philological Society* 96: 117-158.
- Abney, Stephen. 1987. *The English Noun Phrase in its Sentential Aspect*.

- Ph.D. Dissertation, MIT.
- Austin, Frances. 1980. A crescent-shaped jewel of an island: appositive nouns in phrases separated by *of*. *English Studies* 61: 357-366.
- Beck, Sigrid and Armin von Stechow. 2006. Dog after dog revisited. Tübingen: University of Tübingen, MS.
- Culicover, Peter. 1999. *Syntactic nuts: Hard cases in syntax*. Oxford: Oxford University Press.
- Culicover, Peter and Ray Jackendoff. 1997. Semantic subordination despite syntactic coordination. *Linguistic Inquiry* 28: 195-218.
- Culicover, Peter and Ray Jackendoff. 2005. *Simpler syntax*. Oxford: Oxford University Press.
- De Smedt, Liesbeth, Lieselotte Brems, and Kristin Davidse. 2007. NP-internal functions and extended uses of the 'type' nouns *kind*, *sort*, and *type*: towards a comprehensive, corpus-based description. In R. Fachinetti (ed.), *Corpus Linguistics 25 Years on*, 225-255. Amsterdam/New York: Rodopi.
- Den Dikken, Marcel. 1995. Copulas. Paper Presented at *GLOW 18*, Tromsø. Vrije Universiteit Amsterdam/HIL, MS.
- Den Dikken, Marcel. 2006. *Relators and Linkers: The Syntax of Predication, Predicate Inversion and Copulas*. Cambridge: MIT Press.
- Den Dikken, Marcel and Pornsiri Singhapreecha. 2004. Complex noun phrases and linkers. *Syntax* 7: 1-54.
- Fillmore, Charles, Paul Kay, and Catherine O'Connor. 1988. Regularity and Idiomaticity in Grammatical Constructions: The Case of Let Alone. *Language* 64.3: 501-538.
- Goldberg, Adele. 2006. *Constructions at work: Constructionist approaches in context*. New York: Oxford University Press.
- Goldberg, Adele and Ray Jackendoff. 2004. The English resultative as a family of constructions. *Language* 80: 532-568.

- Hallman, Peter. 2004. NP-Interpretation and the Structure of Predicates. *Language* 80.1: 707-747.
- Huddleston, Rodney and Geoffrey K. Pullum. 2002. *The Cambridge grammar of the English language*. Cambridge: Cambridge University Press.
- Hudson, Richard. 1987. Zwicky on heads. *Journal of Linguistics* 23: 109-132.
- Jackendoff, Ray. 1977. *X'-syntax*. Cambridge, MA: MIT Press.
- Jackendoff, Ray. 2008. *Construction after construction* and its theoretical challenges. *Language* 84: 8-28.
- Kayne, Richard. 1994. *The Antisymmetry of Syntax*. Cambridge: MIT Press.
- Keizer, Evelien. 2007. *The English Noun Phrase: The Nature of Linguistic Categorization*. Cambridge: Cambridge University Press.
- Kim, Jong-Bok. 2004. Hybrid English Agreement. *Linguistics* 42.6: 1105-1128.
- Kim, Jong-Bok and Peter Sells. 2008. *English Syntax: An Introduction*. CSLI Publications, Stanford CA.
- Kim, Jong-Bok and Peter Sells. 2009. The Big Mess Construction: Interactions between the Lexicon and Constructions. Paper presented at *the First Vigo-Newcastle-Santiago-Leuven International Workshop on 'The structure of the noun phrase in English: synchronic and diachronic explorations'*, Vigo, Spain.
- Napoli, Donna Jo. 1989. *Predication theory: a case study for indexing theory*. Cambridge: Cambridge University Press.
- Nordlinger, Rachel and Louisa Sadler. 2008. From juxtaposition to incorporation: an approach to generic-specific construction. In M. Butt and T. King (eds.), *Proceedings of the LFG08 Conference*. Stanford, CA: CSLI Publications.
- Owen, Charles. 2007. Notes on the ofness of *of* – Sinclair and grammar. *International Journal of Corpus Linguistics* 12: 201-221.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik. 1985. *A Comprehensive Grammar of the English Language*. London and

New York: Longman.

- Sadler, Louisa and Rachel Nordlinger. 2010. Nominal juxtaposition in Australian languages: An LFG analysis. *Journal of Linguistics* 46: 415-452.
- Sag, Ivan, Thomas Wasow, and Emily Bender. 2003. *Syntactic Theory: A Formal Introduction*. Stanford: CSLI Publications.
- Zwicky, Arnold. 1985. Heads. *Journal of Linguistics* 21: 1-29.
- Zwicky, Arnold. 1995. Exceptional degree markers: A puzzle in internal and external syntax. *OSU Working Papers in Linguistics* 47: 111-123.

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