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Arguments and modifiers in deverbal nominals: Romanian Genitives and *de*-PPs

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Abstract

This paper addresses the distribution of Genitives and PPs in deverbal nominalizations with a particular focus on Romanian *-tor* nominals that express agents, e.g., *vânzător* ‘seller’, and instruments, e.g., *tocător* ‘shredder’. The issue of the distribution of Genitives is central to understanding the argumental structure properties of deverbal nominalizations in Romanian, and cross-linguistically. Derived nominals expressing agents and instruments have been and continue to be the subject of much controversy in the literature with respect to whether they (or at least some of them) involve an argument structure. We argue that the existence of an argumental Genitive in Romanian provides strong support for views that propose that (at least a subclass of) agent nominals have argument-structure properties. However, we also show that a proper understanding of the distribution of Genitive case-marked complements and PPs bears upon their interpretive nature, and more particularly on their specific vs. non-specific interpretation.

Keywords: deverbal nominals, agent and instrument-denoting nominals, argument structure, event structure, argument, modifier, genitive, PP.

1. Introduction

1.1. Background

A common view on deverbal nominals is that they are split into two distinct classes depending on whether or not they exhibit argument structure and event structure properties (Chomsky 1970, Grimshaw 1990, Borer 2013, a.o). *Complex Event Nominals* (CENs, Grimshaw 1990), also termed *Argument Structure Nominals* (AS-Ns, Borer 2013), exhibit both an argument structure and an event structure which are assumed to be inherited directly from an underlying verbal structure: e.g. *the destruction of the city by the enemy in two hours*. By opposition, nominals that lack both an argumental structure and an event structure, often termed *Referential Nominals* (R-Ns), are assumed to be derived directly from roots, even though, on the surface at least, they seem to relate to a verb: e.g., *this huge building* (*of..., *by ..., *in...) (Grimshaw 1990, Borer 2013).

The question whether a similar AS-N / R-N dichotomy also exists among agent and instrument denoting derived nominals has been the subject of much debate in recent literature, and going back to Chomsky's (1970) *Remarks on Nominalization*. For Chomsky, all individual-denoting nominals (including what we call *agents*, and Chomsky did not address *instruments* specifically), are non-derived and do not have an argument structure. This includes e.g., *the general secretary of the party*, *the assistant vice-chancellor of the university*, as well as nominals that may be descriptively associated with a lexical verb (e.g., *director* (*direct-*), *diver* (*dive-*), *owner* (*own-*)). Borer (2013) takes a similar position. We refer the reader to Roy & Soare (2020) for details of their argumentation which we are not going to develop here.

Other studies, starting with Rappaport Hovav & Levin (1992), van Hout & Roeper (1998), and later on Alexiadou & Schäfer (2008, 2010), McIntyre (2014) and Roy & Soare (2013, 2014, 2020), have pointed to the lack of homogeneity in agent and instrument denoting deverbal nominals. Leaving aside significant differences between these specific analyses, they all agree on the fact that (at least a subclass of) deverbal *-er* nominals are syntactically derived from a verbal structure, and exhibit argument and event structure properties.

Rappaport Hovav & Levin (1992) first proposed that the eventive reading of *-er* nominals, forced by event-related modifiers like the adjectives *constant* and *frequent*, is correlated with argument realization (via the insertion of an argumental *of*-phrase). Hence, they point that while phrasal formations such as *mower of the lawn*, *saver of lives* receive an eventive interpretation, synthetic compounds such as *lawn mower*, *lifesaver*, *firefighter*, which do not involve an argument, never allow the eventive interpretation. Only phrasal nominals are AS-Ns. They also note that while synthetic compounds can denote an agent or an instrument (e.g., *branch cutter*), phrasal nominals denote only agents (e.g., *cutter of branches*). See also van Hout & Roeper (1998) and Roy et al. (2016).

In a more drastic move, Alexiadou & Schäfer (2010) have proposed that *all* derived *-er* nominals are AS-Ns. Some are interpreted as episodic, while others are dispositional; the latter include instruments. On the basis of interpretational and morphological properties, and especially verbal derivational morphology (e.g. *humidi-*

ify-er), they conclude to the existence of an underlying verb and an eventive meaning in *all -er* nominals. The difference between episodic and dispositional nominals is in the kind of aspectual head they involve (ASP_{EPISODIC} vs. ASP_{DISPOSITIONAL}), and which is responsible for the actual/non-actual event reading in their interpretation, and argument structure properties.

Building on Alexiadou & Schäfer (2010), Roy & Soare (2013, 2014, 2020) developed a typology, which we will adopt in this study, based on a three-way, rather than a two-way, distinction for French and Romanian *-eur* and *-tor* nominals. They argue for a distinction between episodic agent nominals (1a), dispositional agent nominals (1b) and instruments (1c), in which all agent nominals are AS-Ns but instruments are R-Ns:

- (1)
- | | | | |
|----|--|---|----------------------------|
| a. | le vendeur de la voiture/
the seller of the car | vânzătorul mașinii
seller-the car.GEN | <i>episodic agent</i> |
| b. | le vendeur de voitures/
the seller of cars | vânzătorul de mașini
seller-the of cars | <i>dispositional agent</i> |
| c. | le broyeur de végétaux/
the shredder of plants | tocătorul de vegetale
shredder-the of plants | <i>instrument</i> |

Agent denoting AS-Ns (1a-b) derive from a verbal structure as given in (2a-b). They project an internal argument. Importantly, the difference between episodic and dispositional AS-Ns is in the particular nature of the internal argument: episodic agent *-eur/-tor* nominals necessarily involve a *specific* argument; whereas dispositional agent nominals involve a *non-specific* argument. In such a view, the source of the interpretational difference is, thus, directly related to the specificity of the internal argument, a generalization valid for both French (3) and Romanian (4):

- (2) Agents (AS-Ns):
- a. Episodic:
 \exists [NP N [AspEvP *-er* [AspEv ev] [AspQP **DP**_{SPECIFIC} [AspQ] [C=V Root]]]]
- b. Dispositional:
 GEN [NP N [AspEvP *-er* [AspEv ev] [AspQP **DP**_{NON-SPECIFIC} [AspQ] [C=V Root]]]]
- (3) episodic
- | | | |
|-----|---|---------------------------------------|
| i. | le vendeur de la /cette voiture | DP _{Def} argument = specific |
| | the seller of the this car | |
| ii. | vânzătorul mașinii/ acestei mașini | |
| | seller-the car-GEN / this-GEN car-GEN | |
| | ‘the seller of the / these cars’ | |
- (4) dispositional
- | | | |
|-----|-------------------------------|---------------------------------|
| i. | le vendeur de voitures | bare plural arg. = non-specific |
| | the seller of cars | |
| ii. | vânzătorul de mașini | |
| | the seller of cars | |
| | ‘the car-seller’ | |

The episodic reading is associated with existential quantification over a specific internal event (2a); while the dispositional reading is associated with generic quantification over a non-specific internal event (2b) (see Roy & Soare 2014, 2020 for details).

In turn, instruments (1c) are R-Ns. They involve neither an eventive structure nor an argumental structure and are assumed to be root-derived:¹

(5) Instruments (R-Ns): [NP N *-er* [C=N Root]]

Empirical evidence for the absence of eventive and argumental structure in instruments comes from (internal) event related adjectival modification, e.g., *big*-type adjectives², which is altogether unavailable in instruments (see Roy & Soare 2013, 2014, 2020 for details of the argumentation). More precisely, BAs can have an eventive interpretation (modification of the *internal* event) when they modify dispositional agents but not when they modify instruments; cf., examples (6) for French and (7) for Romanian. In (6a) and (7a), with dispositional agents, the internal event modification is available. Dispositional nominals relate to an eventuality that can remain unactualized. This is not the case, however, with instruments. In French (6b), the eventive reading is simply unavailable. In Romanian (7b), the prenominal position of *mare* ‘big’ (as opposed to the post-nominal position) entails an event related interpretation, which leads to complete ungrammaticality:

- (6) a. Nous avons trouvé un gros vendeur de voitures. AS-N; agent
 we have found a big seller of cars
 → big person who sells cars
 → person who can sell a lot of cars (e.g. lots of cars are for sale)
- b. Nous avons trouvé un gros broyeur de végétaux. R-N; instrument
 we have found a big shredder of plants
 → big machine that shreds plants
 ↗ a machine that can shred a lot of plants
- (7) a. Am găsit un mare vânzător de mașini. AS-N; agent
 have found a big seller of cars
 → big person who sells cars
 → person who can sell a lot of cars (e.g. lots of cars are for sale)
- b. *am găsit un mare tocător de vegetale R-N; instrument
 have found a big shredder of vegetables

Assuming, as commonly the case in the literature, that internal eventive modification signals the presence of an internal event structure, and that internal event structure is correlated with argument structure properties, we must conclude that instrument *-er* nominals are R-Ns. PPs that occur with instruments are thus modifiers and cannot be arguments.³

¹ In this view, arguments cannot be projected directly from roots, but they are assumed to be introduced by dedicated functional heads in the structure, in agreement with Borer (2013).

² Modification with *frequent* adjectives (FAs) distinguishes between episodic and dispositional agent *-er* nominals, while modification with *big* adjectives (BAs) distinguishes between dispositional agent *-er* nominals and instruments (Roy & Soare 2014, 2020).

³ In further support, note that in French *de*-PPs with instruments can be replaced with *à*-PPs which are clearly adjuncts: *un broyeur à végétaux* (lit. a shredder at plants) (see Roy & Soare 2014). Moreover, in both French and Romanian, *de*-PPs with instruments can be separated from

discuss in the rest of the paper) (13a); while modifiers are always expressed by *de*-PPs, and never take the Genitive (13b-c).

- (13) a. distrugerea [oraşului] [de anul trecut]
 destruction town.GEN of year last
 ‘last year’s destruction of the city’
 b. *distrugerea [anului trecut]⁴
 destruction year.GEN last
 c. *distrugerea sa [a anului trecut]
 destruction its GEN year.GEN last

Since agent *-tor* nominals are AS-Ns and instrument *-tor* nominals are R-Ns (following the results of Roy & Soare 2020 for Romanian), we would expect argumental Genitives in the former case and not in the latter. This expectation, however, is not met. A close look at the distribution of Genitives reveals that while it is the only option with episodic agent nominals (14a); it is ungrammatical both with dispositional agent nominals (14b) and instruments (14c):

- (14) a. episodic AS-N agent *-tor* nominals → vânzătorul **maşinii** / *de maşini
 seller.the car.GEN of cars
 ‘the seller of the car’
 b. dispo AS-N agent *-tor* nominals → vânzătorul **de maşini** / *maşinii
 seller.the of cars car.GEN
 ‘the car-seller’
 c. instrument R-N *-tor* nominals → tocătorul **de vegetale**/*vegetalelor
 shredder.the of plants plants.GEN
 ‘the plant-shredder’

The absence of argumental Genitives in instrument denoting *-tor* nominals is not surprising since they are R-Ns, and thus do not support arguments (14c). However, the puzzle is to explain the distribution of argumental Genitives with agent denoting nominals. Although all of them are AS-Ns, cf. (2), Genitives appear with a subclass only, namely episodic agent *-tor* nominals (14a), and not dispositional agent *-tor* nominals (14b). Why is the Genitive out with dispositional agent *-tor* AS-Ns?

Differences in argument realization among *-er* nominals have also long been noted for English. Episodic and dispositional agents do not pattern together in English. The former, which are phrasal, project an *of*-PP argument (e.g., *saver of lives*), while the latter, which are synthetic compounds, involve a form of incorporation (e.g., *lifesaver*). In Alexiadou & Schäfer’s (2010) approach, since all *-er* nominals are AS-Ns, and hence argument projecting structures, the difference is accounted for by stipulating additional restrictions on the argument structure in the context of the dispositional aspectual head (Asp_{DISPO}). Specifically, they assume Asp_{DISPO} to prevent the projection of internal arguments in both dispositional and instrument *-er* nominals. Only nominals involving Asp_{EPISO} project an internal (quantized) argument.

⁴ Independently, Romanian, like other Romance languages, does not accept two Genitives in a single DP. However, the ban on Genitive with modifiers goes beyond this restriction, as shown by (c).

The extension of this analysis to the Romanian paradigm, could, a priori, seem feasible. The absence of the Genitive case with dispositional agents would be derived from the absence of an internal argument altogether, in relation to the presence of the aspectual projection Asp_{DISPO} . Only episodic agent nominals would project an internal argument, associated with Genitive case marking; while *de*-PPs in dispositional agents, as well as instruments, would no longer be internal arguments. However, there are two reasons not to do so. First, Romanian dispositional agents and instruments do not have the same internal structure; dispositional agents are AS-Ns, and thus project an internal argument; while instruments are R-Ns (cf. Roy & Soare 2020). Second, such a view would simply miss on the fundamental generalization that case marking is correlated with specificity in the grammar of Romanian. Instead, we will argue that the correlation between case marking and specificity, together with the correlation between specific internal event and episodic reading derives, without resorting to any additional stipulations, the interpretive differences between episodic and dispositional agent nominals, as well as the restricted distribution of the Genitive. As a consequence, dispositional agents involve an incorporated PP argument, while instruments involve a PP modifier.

We will first address the distribution of the Genitive in episodic agent nominals and instruments, and show that it supports the original distinction between AS-Ns and R-Ns among *-tor* nominals (Section 2). We will then address dispositional agent nominals, and argue that there is a correlation between Genitive case and specificity in Romanian leading to an impossibility to use Genitives with dispositional nominals (Section 3). Finally, we will present our analysis of dispositional agent nominals as involving pseudo-incorporated arguments (Section 4), and make some concluding remarks on cross-linguistic variations (Section 5).

2. Support for the AS-N / R-N split in *-tor* nominals

The distribution of argumental Genitive provides clear support for a view in which derived *-tor* nominals are split into at least two groups, AS-Ns and R-Ns, as in Roy & Soare's (2020) account. Genitives and *de*-PPs are in complementary distribution in two of the three classes under discussion: episodic agent nominals and instruments. Episodic agent *-tor* nominals take argumental Genitive DPs, and can never be construed with *de*-PPs (15)-(16). Importantly, in (15a-16a), the Genitive can only be interpreted as an internal argument:

- (15) a. Aducătorul scrisorilor va primi o recompensă.
 carry-er letter.DET.GEN will receive a reward
 'The carrier of the letter will receive a reward'.
 b. *Aducătorul de scrisorile va primi o recompensă.
 carry-er of letters.DET will receive a reward
- (16) a. vindecătorul acestui bolnav
 healer-the this.GEN sick-person
 b. *vindecătorul de acest bolnav
 healer-the of this sick-person
 'the healer of this sick person'

By contrast, instrument *-tor* nominals do not take argumental Genitives. Although it is possible to find Genitives with instruments (e.g. *copiator* in (17)), when available they can never be interpreted as an internal argument. Thus, while examples in (17) are attested, they cannot have the same interpretation as the examples in (15)-(16). In (17), the Genitive can only be interpreted as a possessive. Hence in (17a) the nominal *copiatorul articolului* (lit. copy-er article.GEN) cannot mean ‘the copy machine that copied the article’, but ‘the copy machine that belongs to the article’, which may appear contextually weird. Similarly, in (17b), the only reading available is one in which the copy machine belongs to the department, and the argumental reading is excluded.

- (17) a. Copiatorul articolului s-a stricat.
 copy-er article.GEN se-has broken
 → ‘the copy-machine that belongs to the article is broken’
 ⇨ ‘the copy-machine that copied the article is broken’
- b. Copiatorul catedrei s-a stricat.
 copy.er.the department.GEN se.has broken
 → ‘the copy machine of the department is broken’
 ⇨ ‘the copy machine that copied the department is broken’

Possessive Genitives are not related to internal argumental structure properties. The absence of argumental Genitive, which, to the best of our knowledge, has never been addressed before, follows directly from the absence of argument structure with instruments (Roy & Soare 2020).

By contrast, instrument *-tor* nominals take *de*-PPs (18). And compare with episodic agent *-tor* nominals in (15)-(16).

- (18) transmițătorul de semnale s-a stricat.
 transmitter.the of signals se-has broken
 ‘The transmitter of signals is broken’.

The mere co-existence of argumental Genitives and *de*-PPs in the grammar of deverbal nominals in Romanian confirms the split between AS-N and R-N *-tor* nominals.⁵

As already stated in the introduction, an evident expectation would be that the presence of Genitive arguments signals AS-Ns; whereas the presence of *de*-PPs signals R-Ns. However, because dispositional agent nominals also take *de*-PPs, the situation is manifestly more complex. The distribution of Genitives and *de*-PPs in itself cannot constitute a sufficient empirical clue to identify arguments and non-arguments in Romanian deverbal nominals: while some arguments are marked with the Genitive, others are PPs; and while some PPs are arguments, others are mere modifiers.

To understand the distribution of Genitives and PPs, let us turn to dispositional agent nominals.

⁵ And the mere existence of an argumental Genitive in Romanian *-tor* nominals argues against the Chomsky/Borer view that treats *all* individual-denoting nominals as R-Ns altogether.

3. Genitive case and specificity

The issue with dispositional agent *-tor* nominals, as already stated, is that they are AS-Ns (Roy & Soare 2020) but they cannot take Genitive arguments and instead take *de*-PPs. In that respect, on the surface at least, they resemble instruments, i.e. they behave like *-tor* nominals that do not support arguments (cf., paradigm in (14)). Dispositional agent nominals, however, are different from episodic agent nominals, in the fact that they take non-specific arguments. Specificity, we will argue, is precisely what licenses Genitive case marking.

There is a simple reason for that. Case is morphologically marked on determiners in Romanian. In the language, non-specific arguments are expressed by bare plurals. They lack a D (Dobrovie-Sorin & Giurgea 2015, among others). Consequently, non-specific arguments can never be case-marked (in the absence of an overt D). Case marked definite and indefinite DPs are interpreted as specific. This is a general constraint on argumental and non-argumental case in Romanian. Consider, for instance, argumental Genitive in (19), argumental Dative in (20) and possessive Genitive in (21).

- (19) *distrugerea* *oraşului* /*unui oraş*
 destruction.DET.DEF city.DET.DEF.GEN a.GEN city
 ‘the destruction of the/a city’
- (20) *Am dat bani regelui* /*unui rege*
 have given money king.DET.DEF.DAT a.DAT king
 ‘We gave money to the/a king’
- (21) *fata* *regelui* /*unui rege*
 daughter.DET.DEF king.DET.DEF.GEN a.GEN king
 ‘the daughter of the/a king’

With bare nominals, either singular (22) or plural (23), case cannot be marked in the absence of a D. The nominal expression needs, then, to be introduced inside a PP. Preposition *de* ‘of’ maps with the Genitive and preposition *la* ‘at’ with the Dative:

- (22) a. *fată de oameni săraci*
 daughter of people poor
 ‘a poor people’s daughter’
 b. *am dat bani la săraci*
 have given money to poor
 ‘We gave money to poor people’ (meaning: charity to the poor)
- (23) a. *fată de rege*
 daughter of king
 ‘daughter of a king / a king’s daughter’
 b. *am dat bani la rege*
 have given money to king
 ‘we gave money to king’ (meaning: we paid our royal taxes)

Accordingly, the distribution of the Genitive in deverbal *-tor* nominals is no longer surprising but instead somewhat expected. The absence of Genitive with dispositional agent *-tor* nominals follows from two factors: (i) non-specificity of the internal argument, which is realized as a bare nominal, and (ii) the impossibility to mark case on bare nominals. Consequently, the bare internal argument in dispositional agent nominals has to be introduced in a *de*-PP. The grammar of Romanian offers no other option:

- (24) vânzător.ul de mașini
 seller.DET.DEF of cars
 ‘the car-seller’

Episodic agent nominals are different because they involve a specific internal argument realized as a full DP, which licenses Genitive case marking. The specific internal DP argument, marked with Genitive, necessarily leads to an episodic reading.

- (25) vânzător.ul mașinii
 seller.DET.DEF car.DET.DEF.GEN
 ‘the seller of the car’

The connection between specific DPs and Genitive case is obvious with proper names like *Bucharest* in (26) or *Mona Lisa* in (27), which are by default specific, and can only take Genitive, like elsewhere marked on D:

- (26) distrugerea (frecventa a) Bucureștiului / *de București
 destruction-the frequent GEN Bucharest.DET.DEF.GEN of Bucharest
 ‘the frequent destruction of Bucharest’
- (27) vânzătorul Mona Lisei / *de Mona Lisa
 seller-the Mona Lisa.DET.GEN of Mona Lisa
 ‘the seller of Mona Lisa’

So, even though episodic agents take Genitives, because they involve specific arguments, and dispositional agents take argumental *de*-PPs, because they involve non-specific arguments, both are AS-Ns. The eventive reading, demonstrated by the compatibility with BAs in dispositional agent nominals, corroborates the argumental nature of bare plural *de*-PPs.

- (28) Un mare vânzător **de mașini** ne-a făcut o ofertă.
 a big seller of cars us-has made an offer
 ‘A car-seller who sells a lot of cars made us an offer’.
- (29) Un mare vânzător **al acestor mașini americane** ne-a făcut o ofertă
 a big seller GEN these.GEN car.GEN american us-has made an offer
 ‘A seller who sold a lot of these american cars made us an offer’.

The distribution of Genitives is, thus, not only expected, but could also be taken as further support for Roy and Soare’s claim that specificity of the internal argument *is* the source of the episodic/dispositional contrast in agent nominals.

Together with argumental Genitives, Romanian has clear cases of argumental PPs, similar to French. The only difference between the two languages is that all arguments are PPs in French, while it is the case only for non-specific ones in Romanian. In the next section, we further address the nature of argumental PPs.

4. Argumental PPs in AS-Ns

Romanian argumental PPs are not restricted to the cases at hand here, namely dispositional agent nominals, but are, in actuality, found in *all* deverbal AS-Ns when the argument is realized by a bare nominal. Examples (30) and (31) illustrate the same constraint with event denoting deverbal nominals:

- (30) *distrugerea* (frecventa a) **orașelor**
 destruction-the frequent GEN cities.GEN
 ok: ‘the (frequent) destruction of the cities’
 #: ‘the (frequent) destruction of cities’

- (31) *distrugerea* (frecventa) **de orașe**
 destruction-the frequent of cities
 #: ‘the (frequent) destruction of the cities’
 ok: ‘the (frequent) destruction of cities’

We observe not only the existence of argumental PPs in both agent-denoting and event-denoting AS-Ns but also that they appear under the same conditions, namely with bare nominals, for reasons that we have explained above.

Following Dobrovie-Sorin & Giurgea (2015), bare nominal arguments have a special status in Romanian as pseudo-incorporated phrases⁶. Pseudo-incorporated arguments exhibit a set of distinctive properties. Interpretationally, (i) they have a tighter than usual relationship to the (V) head, as if they were contributing to the description of the predicate —they are sometimes called *co-predicates*; (ii) they cannot have a strong/specific interpretation (Massam 2001, Dayal 2003, Dobrovie Sorin et al 2005, 2006); (iii) they are number neutral, in the sense that morphological number does not entail semantic singularity/plurality. Structurally, (iv) they always appear adjacent to the head; (v) they can be coordinated (Massam 2001); and (vi) they generally lack Case (Mithun 1984; van Geenhoven 1998; Dayal 2003; Massam 2001).

Some of these properties are reminiscent of our *de*-PP arguments: non-specificity, absence of Case. Others will be discussed below. Still, the question whether pseudo-incorporated arguments exist in the structure of derived nominals has seldom been addressed in the literature and never for Romanian. The only work that we know of is Knittel (2010) which discusses bare arguments of event-denoting AS-Ns in French (e.g.,

⁶ Pseudo-incorporation exhibits similar properties to head-to-head incorporation, but concerns phrasal arguments rather than heads (Massam 2001, Dayal 2003, Dobrovie-Sorin et al 2005, 2006 among others).

vente ‘sale’, *destruction* ‘destruction’). Knittel (2010) argues that the bare arguments of event-denoting AS-Ns, which are introduced by a P head, are pseudo-incorporated. The analysis is supported by a series of properties that bare PPs exhibit with respect to scope, number neutrality, adjacency, coordination and non-specificity. For instance, example (32a) shows that bare complements have to be adjacent to the N head, contrary to what happens with determined complements (32b). In (32a), *bijoux* ‘jewels’ is non-specific, non determined (bare plural—and note that bare nominals are rare in French and only possible under government of a V or P head (e.g., *avoir faim* (lit. have hunger) ‘be hungry’, *en vacances* (lit. in vacations) ‘in vacation’), and exhibits a low level of individuality (number neutral—morphological plural does not entail that the sale had to involve more than one jewels):

- (32) a. *une vente de bijoux à domicile / ??à domicile de bijoux*
 a sale of jewels at home at home of jewels
 ‘a door-to-door jewelry sale / *a jewelry door-to-door sale’
- b. *La construction intensive de ces maisons a occasionné du bruit.*
 the building intensive of these houses has caused DET noise
 ‘The intensive building of these houses has provoked noise.’

In fact, pseudo-incorporated PPs have also been argued for, in French, in the case of bare arguments under phrasal negation (Mathieu 2006). In French, indefinite count DPs (*un bijou* ‘a jewel’, *une réponse* ‘an answer’) and partitive mass DPs (*du rythme* ‘rhythm’, *de l’eau* ‘water’) become *de*-PPs in the context of negation (33). Such *de*-PP arguments exhibit a low degree of individuality, are interpreted as non-specific, and must be adjacent to the V head (Mathieu 2006):

- (33) a. *Je n’ai pas vendu (*souvent) de bijoux.*
 I not-have NEG sold often of jewels
 ‘I haven’t sold any jewels / I sold no jewels’.
- b. *Il n’y a pas (*souvent) de réponse / d’eau / de rythme*
 There not-is NEG often of answer of water of rhythm
 ‘There is no answer’ / ‘There is no water’ / ‘There is no rhythm’

Turning back to Romanian agent nominals, evidence points to the pseudo-incorporated status of *de*-PPs in dispositional agent AS-Ns. The first two properties already mentioned are non-specificity and absence of Case. By definition, dispositional agent nominals are the ones that involve weak/non-specific internal arguments: the non-specificity of the (verbal) argument is inherited by the derived nominal, and this leads to the dispositional interpretation at the DP level for dispositional agent nominals. These bare arguments cannot bear Case, here Genitive Case, which is, as we already know, exactly what distinguishes arguments of episodic agent nominals from arguments of dispositional agent nominals.

Moreover, as shown by Knittel (2010) for event-denoting AS-Ns in French, *de*-PP arguments in dispositional agent nominals are necessarily adjacent to the nominal head (34). Interpretationally, and as expected, *de*-PP arguments exhibit also number neutrality: the plural on *bijuterii* ‘jewels’ in (34) does not entail plurality of selling events / sold jewels.

- (34) un vânzător de bijuterii la domiciliu / *un vânzător la domiciliu de bijuterii
 a seller of jewels at home a seller at home of jewels.
 ‘a door-to door jewelry seller’ *‘a jewelry door-to-door seller’

Finally, we note that coordination, as a further property of pseudo-incorporated arguments (Massam 2001), is possible with these arguments at the N level (i.e., *de* outscopes the coordination), indicating a defective nominal structure. As a matter of fact, the property is shared with pseudo-incorporated bare arguments in the verbal domain as well (36):

- (35) un vânzător de bijuterii și (de) tablouri
 a seller of jewels and (of) paintings
 ‘a seller of jewels and paintings’
- (36) a vândut bijuterii și tablouri
 has sold jewels and paintings
 ‘He/She has sold jewels and paintings’.

Unsurprisingly, a similar analysis straightforwardly extends to event-denoting AS-Ns in Romanian as well. Consider, for instance, example (37) which illustrates adjacency, non-specificity, and coordination. The low level of individuality is the same as elsewhere with bare PP arguments:

- (37) a. vânzarea de bijuterii la domiciliu / *la domiciliu de bijuterii
 sale-the of jewels at home at home of jewels
 ‘the sale of jewels at home’
 b. vânzarea de bijuterii și tablouri
 sale-the of jewels and paintings
 ‘the sale of jewels and paintings’

So, if this is correct, bare nominal arguments in AS-Ns are similar to bare arguments of V in the verbal domain. This means that the pseudo-incorporation analysis is on the right track: it is the properties of the nominals themselves (namely, the fact that they are non-specific and structurally defective) that trigger their distinctive syntactic behavior as pseudo-incorporated.

It follows from the discussion that there is a close relationship between the properties of the internal argument and the semantic/syntactic internal properties of the derived nominal. This proposal, first made in Roy & Soare (2013, 2014, 2020), is largely confirmed here: non-specificity, number neutrality, and absence of case are correlated. Furthermore, non-specificity as the source of the dispositional reading now becomes transparent: number neutrality and a low-degree of individuality of non-specific arguments induces neutrality of derived nominals with respect to event pluractionality, and hence brings about the dispositional rather than episodic interpretation.

5. Conclusion: Romanian and beyond

To conclude, Romanian shows that, in both event-denoting and agent-denoting AS-Ns, specificity of internal arguments correlates with case marking; while non-specific bare arguments are pseudo-incorporated. In the case of *-tor* derived nominals, specificity of the internal argument derives both the episodic reading and case properties. In turn, the lack of specificity in bare arguments of dispositional *-tor* nominals derives absence of case marking, linked to pseudo-incorporation. Number neutrality in non-specific arguments brings about the dispositional interpretation. This opens a new dimension in the direct relationship between specificity of the internal argument, the interpretation of derived AS-Ns, and their internal structure.

Putting together these results with Knittel (2010), and previous discussion of French in Roy & Soare (2013, 2014), the extension of this analysis to French agent-denoting deverbal nominals appears highly desirable. Properties of Romanian bare arguments (cf., 34) replicate in French as well: non-specificity, number neutrality, adjacency, and obviously absence of case (38). Non-specific *de*-PPs in dispositional agent *-eur* nominals are pseudo-incorporated arguments:

- (38) un vânzător de bijuterii la domiciliu / *un vânzător la domiciliu de bijuterii
 a seller of jewels at home a seller at home of jewels.
 ‘a door-to door jewelry seller’ *‘a jewelry door-to-door seller’

In turn, pseudo-incorporation is not a tenable analysis for specific argumental DPs in episodic agent *-eur* nominals, for reasons already stated. If a clear parallel exists with Romanian, which seems to be the case at every level of comparison so far, specific *de*-PPs are true Genitives, in line with Milner (1982), Zribi-Hertz (2003) and Knittel (2010). By the same token, this would mean that French *de*-PPs, that are commonly seen as multiply ambiguous in the grammar of French, are also ambiguous in agent and instrument *-eur* nominals. They express: (i) Genitive case marked DPs with episodic AS-Ns, (ii) pseudo-incorporated arguments in dispositional AS-Ns, and (iii) modifiers in non argument-supporting instruments (R-Ns). The only difference between Romanian and French, thus, is morphological:

- | | | |
|------|-------------------------|---|
| (39) | | Romanian / French |
| | i. Episodic AS-Ns | Genitive (Case/ <i>de</i>) |
| | ii. Dispositional AS-Ns | <i>de</i> -PP (pseudo incorporated arguments) |
| | iii. Instrument R-Ns | <i>de</i> -PP (modifiers) |

In closing, let us turn to English, and the partition between phrasal agents (*saver of lives, cutter of branches*), compound agents (*lifesaver, branch cutter*) and (compound) instruments (*branch cutter*). Whether this partition can similarly be reduced to the three-way distinction between episodic agents, dispositional agents, and instruments is a pertinent question. A number of possible similarities and potential problems arise, which we will briefly expose here. First, compound agents are always dispositional—they do not entail any specific event (cf., Rappaport Hovav & Levin 1992, Alexiadou & Schäfer 2010). Compounding is a form of incorporation, a morphological process which shares properties with pseudo-incorporation. However, this basic similarity does not discriminate compounds from phrasal formations: while phrasal agent nominals entail an

underlying event, it is not clear whether this event is a specific or non-specific one. In addition, and contributing presumably to the issue, phrasal agent nominals take bare plurals: e.g., *saver of lives* and not *#saver of these/the lives*. Bare plurals are non specific, and therefore some, or maybe all, phrasal agent nominals should receive a dispositional interpretation.

Second, the status of agent-denoting *-er* nominals as AS-Ns is debatable, and in fact has been contested by Borer (2013). Importantly, English, as opposed to Romanian and French, rarely allows specific arguments altogether: e.g., *#the seller of the house*, *#the reader of the book*, *#the builder of the bridge*, etc., but note the existence of *the director of the department*, *the leader of the crowd*, *the owner of the painting*). It also never allows indirect arguments even when they are specific: e.g., **the reader of the book to the children*, (compared to French, e.g., *le conteur de l'histoire aux enfants* (lit. the teller of the story to the children) and Romanian with a Dative argument, e.g., *aducătorul acestei scrisori destinatarului* (lit. the carrier of this letter recipient.DAT)).

Third, we note intriguing similarities with regard to instruments. In the three languages, independently of their morphological form, instruments cannot be construed with specific DPs: specific modifiers in French (e.g., *un broyeur de végétaux* / *#des végétaux* (lit. a shredder of plants / # of the plants) and Romanian (*un tocător de vegetale* / *#vegetalelor* (lit. a shredder of plants / #of the plants), and in synthetic compounds in English (e.g., *a (*this) plant-shredder*). In English, the ban on full specific DPs is explainable by compounding. In French and Romanian, however, the restriction is much more opaque as nothing should in principle prevent specific PP modifiers from occurring with instruments. So, it is possible that something more general is happening that also blocks instruments in phrasal formations in English. The question why phrasal nominals can never be interpreted as instruments, even though phrasal *-er* nominals take bare plurals, is an open question. It also potentially relates to the fact that instruments cannot be AS-Ns in French and Romanian, in ways that remain to be understood.

We will leave a full analysis of English and the cross-linguistic constraints on instruments open for further research.

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