HOW DO ADJECTIVAL MODIFIERS CONTRIBUTE TO THE TEMPORAL INTERPRETATION OF NOMINALS?

Viorela-Valentina Dima*

Abstract: Starting from the assumption that nominals contain (at least) one internal temporal variable which may be located in time by various cross-linguistic means (see Pustejovsky 1995, 1998 a.o.), the aim of the present paper is to examine the way in which adjectival modifiers influence the temporal interpretation of head nominals. We will analyze examples which contain relational adjectives (e.g. 'antique', 'modern') and intensional adjectives (e.g. 'former', 'future', 'present').

Keywords: nominal temporal semantics, Lexical Conceptual Structure, relational adjectives, intensional adjectives

1. Introduction

Various (more or less) recent studies have focused on the temporal interpretation of nominals, showing that, cross-linguistically, non deverbal nominals receive a temporal interpretation either in conjunction with so-called nominal temporal-aspectual affixes (see Alexiadou 2005, Lecarme 1996 and further work), or with a wide range of adjectival modifiers in languages which do not possess such affixes (see Tonhauser 2006). The present article examines the way in which the temporal interpretation of (English and Romanian) nominals and various temporal adjectives influence each other. We first present the basic assumptions underlying our investigation, section 2 provides examples which contain relational adjectives and puts forth an account for such examples; section 3 analyzes examples which contain intensional adjectives, providing an account for their behaviour, while section 4 summarizes the main findings of the paper.

As for the main theoretical assumptions underpinning our study, they can be summarized as follows (see Pustejovsky 1995, 1998, 2000 a.o.):

- (i) nominals contain (at least) one internal temporal variable which may be located in time by various cross-linguistic means, including adjectives;
- (ii) the Lexical Conceptual Structures of head-nominals and modifying adjectives have to match for an appropriate temporal interpretation of both to occur:
- (iii) the nominal and adjectival Lexical Conceptual Structures interact with the other elements within a given statement (e.g. verbs, adverbs) as far as temporal interpretation goes.

For example, the nominal *prisoner* in (1) below denotes an escaped prisoner, thus referring to a former prisoner, as illustrated in (1b). Hence, the co-occurrence of *prisoner* with the adjective future in (1c) is perceived as inappropriate / contradictory.

^{*} Bucharest University of Economic Studies, viorelaval@yahoo.co.uk.

- (1) a. The prisoner escaped from the prison. (Pustejovsky 2000: 74a.)
 - b. The former prisoner escaped from the prison.
 - c. ??The future prisoner escaped from prison.

How can the facts in (1) be explained? First of all, the semantics of the verb *escape* is consistent with the wide-scope reading of the nominal *prisoner* (i.e. the reading in which the entity denoted by the nominal is not *captive*). Second of all, there is an appropriate mapping between the semantics of the modifying adjective and that of the modified nominal in (1b.). Thus, the occurrence of *former* is felicitous since it denotes the end of a state predicated of the individual denoted by the nominal *prisoner*. On the contrary, the occurrence of *future* in (1c.) is not felicitous since it denotes the beginning of a state predicated of the individual denoted by the nominal *prisoner*. In other words, 'future' introduces into the computation a reading in which the entity denoted by the nominal is 'captive' (i.e. a "property-narrow scope", which leads to contradiction with the wide scope of *prisoner*¹) (see Pustejovsky 2000).

Before providing further examples containing intensional adjectives such as 'former', we first examine the temporal meaning obtained by nominals in conjunction with relational adjectives.

2. Relational adjectives

2.1 The data

There is a wide range of relational adjectives derived from "temporal" nouns (i.e. nouns designating time): diurnal / diurn, nocturnal / nocturn, weekly / săptămânal, monthly / lunar, annual / annual, etc. Among them, we have chosen for exemplification antique / antic, and modern / modern. In what follows, we examine their use with nominals denoting [+/-concrete] inanimate and [+/-human] animate entities.² The examples provided below will show that, depending on the semantics of the modified nominal, relational adjectives may obtain two possible readings: intersective and non-intersective.

As far as [+animate] nouns are concerned, the contexts in (2)-(5) below show that all the adjectives under consideration may obtain an intersective reading when modifying a kind-level nominal and a non-intersective reading when the modifying nominal receives another semantic interpretation. On the one hand, *antique / antic* may be used with semantic shift as (metaphorical) synonyms of 'antiquated', 'old-fashioned', as in (2a, b)-(3a), acquiring a non-intersective reading. On the other hand, when the modified nominal denotes a kind, the relational adjective *antic* in (3b) may describe a property of an entity dating as far back as Antiquity

² Tonhauser (2006) shows that the respective classes of nouns exhibit relevant combinatorial restrictions with the so-called nominal tense affixes. Throughout this section we notice that English and Romanian (temporal) adjectival modifiers exhibit variations of meaning (and/ or combination) which are mainly sensitive to the animate versus inanimate distinction.

BDD-A9882 © 2012 Universitatea din București Provided by Diacronia.ro for IP 216.73.216.51 (2025-12-10 00:12:28 UTC)

¹ In Pustejovsky's terms, **wide-scope reading** is identical to **individual-level reading**, while **property-narrow scope** is the same as **stage-level reading** (see Kratzer (1988) for the distinction between individual-level readings and stage-level readings).

- (2) a. His attire and general look made me think he was an **antique professor**, but I will never know.³
 - b. In the entry hall, a Santa Claus with dazzling blue eyes surveys a room filled with dolls, huge presents and an **antique dog** carrying a basket of Christmas balls in his mouth.⁴
- (3) "Arhitectura Calculatoarelor" [...] datorită unui a. Architecture-the.F.SG computer-N.PL.GEN due to a.M.SG de demult și comunist profesor professor.M.SG antique.M.SG of once and Communist.M.SG which să îi reproduci you.ACC put.3SG.IMPERF SĂ 3SG.M.DAT reproduce-2SG.SUBJ all.M.SG ceea.ce dictase la curs [...] fost what dictate-3sg.Past Perf at lecture.N.sg have.3sg been DEGEABA!5 materie a.F.SG subject-F.SG useless 'Computer architecture – due to an antique, old and Communist professor who made you reproduce everything he had dictated during the lecture –
 - was a useless subject.'

 b. Câinele Corso [...] acest câine antic dog-the.M.SG Corso this.M.SG dog.M.SG antique.M.SG fabulos trăia pe teritoriul fabulous.M.SG live-3SG.IMPERF on territory-the.N.SG actualei Italii⁶

current-the.F.SG Italy-SG.GEN

'Cane Corso – this fabulous antique dog used to live on the territory of today's Italy'

Similarly, *modern professor | profesor modern* in (4a)-(5a) below may obtain a non-intersective reading when understood as a contemporary individual or as an individual who adopts current original methods of teaching, and an intersective reading when the modified nominal denotes a kind. In other words, the relational adjectives in (4b)-(5b) may also describe a property of an entity that lives in the Modern Age:

- (4) a. In another section, Mr. Bell plays out a hypothetical conversation between Confucius and **a modern professor** about "harmony" and the value of direct public criticism.⁷
 - b. Geneticists have undertaken studies which indicate that the domestication of **the modern dog** went through a number of stages [...].⁸

BDD-A9882 © 2012 Universitatea din București Provided by Diacronia.ro for IP 216.73.216.51 (2025-12-10 00:12:28 UTC)

³ http://bikeplanecommute.blogspot.com/2007/12/camera-shy.html.

⁴ http://seattletimes.nwsource.com/pacificnw/1217/living.html.

⁵ http://blog.360.yahoo.com/blog-ucX0jk8lc7SZ1TPaOiVG6kVV?p=1665.

⁶ http://www.agenda.ro/news/news/10502/caine-corso.html.

⁷ http://www.feer.com/reviews/2008/september/Chinas-New-Confucianism.

⁸ timberwolfhq.com/origins-modern-dog.

- (5) a. Eu unul cred că eşti într-adevăr un I one-M.SG believe 1SG.PRES that be.2SG.PRES indeed a.M.SG **profesor modern** şi eficient. 9 teacher. M.SG modern. M.SG and efficient. M.SG 'I for one think you are indeed a modern and efficient teacher.'
 - d. **Un câine** *modern*, după ce mușcă, a.M.SG dog.M.SG modern.M.SG after what bite-3SG.PRES este cuprins imediat de remușcare. ¹⁰ be.3SG.PRES overcome.M.SG imediately by remorse-F.SG 'A modern dog, after biting someone, imediately feels remorse.'

As for [-animate] nouns, the contexts in (6)-(9) below show that there is variation in the readings the adjectives under consideration may obtain. More explicitly, *modern* may obtain either an intersective reading or a non-intersective reading, while *antique* / *antic* seem to be more restricted. The examples in (6)-(7) seem to indicate that *antique* / *antic* obtain only an intersective reading, as they refer to the time interval designated by the nominal they derive from. In other words, they denote entities dating as far back as Antiquity:

- (6) a. A lovely **antique amphora** luster vase with large applied grapes.¹¹
 - b. The maddened debate about the film "The Passion" centered on the **antique question**, "Who killed Christ?" 12
- (7) a. Colecția mai cuprindea un număr collection-the.M.SG more contain-3SG.IMPERF a.M.SG number.N.SG enorm de **amfore antice**. ¹³ huge.M.SG of amphora.F.PL antique.F.PL 'The collection also consisted of a huge number of antique amphorae.'
 - b. **Vechea întrebare antică**: cui prodest?¹⁴ old-the.F.SG question-F.SG antique-F.SG cui prodest 'the old antique question: Cui prodest?'

Dissimilarly, the English and Romanian adjective *modern* may obtain either a non-intersective reading, or an intersective reading. On the one hand, *modern vase / vază modernă* in (8), (9) may be understood as vases with new, up-to-date design characteristics. On the other hand, the same modifying adjectives may denote vases dating from the Modern Age:

(8) I decided to turn it in to **a modern vase**, since I really didn't need a fancy toothbrush holder (seriously what was I thinking when I bought that thing). 15

-

⁹ arsenoaieimatasel.ro/?p=428.

¹⁰ http://www.haioase.net/filmulete/caine-modern-11903.htm.

¹¹ http://search.rubylane.com/search?sb=1&ss=amphora.

¹² normblog.typepad.com/normblog/2004/04/halabja.html.

¹³ www.iatp.md/dava/Dava4/.../chetraru_4.html.

¹⁴ http://www.zf.ro/opinii/silviu-brucan-cui-foloseste-strategia-lui-basescu-3006735.

neagră¹⁶ (9) modernă din ceramică Vază vase.F.SG modern.F.SG from ceramics.F.SG black.F.SG 'a modern black porcelain vase'

2.2 The account

The two meanings evinced by the temporal relational adjectives discussed so far may be explained by appealing to the intersective - non-intersective distinction, as proposed in Cornilescu (2006, 2009). Firstly, adjectives of the type antique / antic or modern / modern are relational adjectives which express sets of properties precisely because they are derived from nouns which denote clusters of properties (see Demonte 1997). Secondly, they may obtain an intersective reading when they combine with their sister NP by θ -identification, or a non-intersective reading when they combine with the modified NP by functional application.

On the one hand, McNally and Boleda Torrent (2004) argue that relational adjectives should be interpreted as "intersective, kind-level modifiers, assigned denotations of type <k, t>" (in Cornilescu 2009: 36). For instance, the class of individuals which are professors intersects the class of individuals which are historians, rendering the class of professors of history, as shown in (10) below. This restrictive intersective reading derives from the fact that the adjective modifies the noun at NP level (adjunction), as shown in (11a).

historical professor $\rightarrow \lambda x$ [historical(x) and professor(x)] (10)

The phrase markers in (11a, b) below are meant to point to the similar intersective interpretations of English and Romanian adjectives of the type antique / antic and the like. What differs is that English adjuncts are linearized first, whereas Romanian adjuncts are linearized second (i.e. the representations in (11) below reflect the adoption of symmetric syntax accommodating right adjunction)¹⁷. On the other hand, the nonintersective reading of adjectives such as antique / antic, or modern / modern arise from the latter combining with the modified NP by functional application, as evident from (11c, d) below. Moreover, as proposed in Cornilescu (2009), intensional adjectives are merged as Specifiers of the modified NP, which accounts for their use only pre-

¹⁵http://www.craftstylish.com/item/13691/trash-to-treasure-makeover-yucky-toothbrush-holder-to-modernvase.

16 www.indecis.ro/preturi_Vaze_cadou-583.html.

¹⁷ See Kremers' (2004) proposal of recursive linearization of adjectives: "Syntactic objects produced by external/ internal merge are hierarchical, but not linear, so phases must be linearized before they are sent to PF. [...] Linear order is derived at the end of each phase by means of recursive linearization, starting at the root node, and then applying the procedure to sub-nodes. There are principles that determine which sub-tree to linearize first. The linearization of a standard [Spec [Head [Comp]]] structure can be described using two ordered principles: Principle H, which requires that heads are linearized first, and Principle S, which requires that selected elements are linearized first. If the ordering for a language is S > H, the linear order obtained is Spec > Comp > Head, if the ordering is H > S, the resulting order is Spec > Head > Comp. Either way, however, selected specifiers precede heads. There is also an Adjunct parameter set either to Adjunct First (adjectives in English) or Adjunct Second (adjectives in Romance)" (in Cornilescu 2009: 34).

nominally, and not predicatively. Hence, we consider the representations in (11c, d) below to adequately capture the intensional reading of the relational adjectives in question:

In sum, relational temporal adjectives are ambiguous between two readings: a relational (i.e. intersective) one and an intensional (i.e. non-intersective) one, depending on the way they combine with their sister NP, i.e. by θ -identification, or by functional application, respectively (Cornilescu 2009). Moreover, such adjectives do not modify the temporal existence of the entities they are predicated of.

3. Intensional adjectives

3.1 The data

In what follows, we present data which contain intensional adjectives such as the English former / ex-, present / current, future / would-be and their Romanian counterparts. We will show that such adjectives can, in principle, refer to three sets of

times relevant for nominal temporal interpretation: (i) the time of the predicate, (ii) the time of the possessive relation, or (iii) the time of existence of individuals. We first examine contexts containing past-time oriented nominals and then contexts in which the nominals are future-time oriented, to end with sentences in which the nominals are present-time oriented. Last but not least, we will show that such intensional adjectives always appear prenominally and obtain a non-intersective reading.

3.1.1 Past-time oriented adjectives

Upon examining examples (12)-(13) below, we notice that past-time oriented nominal modifiers can locate any of the three aforementioned nominal times. For instance, *John's former house | fosta lui casă* in (12a.)-(13a.) may denote (i) a building which is no longer a house but – let's say – a hut (past time of the nominal predicate), (ii) a house which has changed owners (past time of the possessive relation), or (iii) a house which no longer exists (past time of existence of the individual/ entity denoted by the nominal head):

- (12) a. That is **John's former house**. (Larson and Cho 2003, example (4))
 - b. ??my former father / my late father
- (13) a. **fosta lui casă** former-the.F.SG his house-F.SG 'his former house'
 - b. ??fostul meu tată / răposatul meu forme-the.M.SG my.M.SG father.MS.SG / late-the.M.SG my-M.SG tată father-M.SG 'my former father / my late father'

Noticeably, the semantics of the modified nominals influence the readings of the temporal adjectives modifying them. For instance, the temporal adjectives under discussion may not locate the time of existence of the entity denoted by the nominal: *my former father / fostul meu tată* in (12b)-(13b) does not mean 'my late father' / 'răposatul meu tată', but 'my former step-father' / 'fostul meu tată vitreg', with the temporal adjective locating the time of the possessive relation¹⁸.

As regards [+animate nouns], when *former* / *fost* modify a nominal denoting an animate entity in a possessive context, they normally place in the past only the possessive relation. In other words, (14a) and (15a) refer to individuals who still exist but are no longer in a mother-child relationship with the possessor, as they are foster/ step-mothers. In emotionally **marked contexts**, however, *former* / *fost* could refer to an individual that no longer exists, hence locating in the past the **time of existence of the respective entity**, as in (14b)-(15b):

(14) a. My current mother is quite alright but **my former mother** was a dragon.

¹⁸ For English, Tonhauser (2006.) considers that the semantic sensitivity of the temporal adjectives *former / fost* represents an irrefutable argument in favour of an **aspect-based temporal interpretation of (non-deverbal) nominals**. We argue that her proposal holds for Romanian, as well (for detailed discussion see Dima 2011).

- b. I have a flat-coated retriever, a dog too active to live in the city, really. My younger dog is a Nova Scotia duck tolling retriever. [...] I very seldom repeat a breed because I don't like living with the ghost of **a former dog**. (Tonhauser 2006, examples (27a, b))
- de câte.ori mă visez "acasă la părinți"
 whenever REFL.1SG.ACC dream-1SG home at parent-M.PL
 mă visez cu [...] fosta mea
 REFL.1SG.ACC dream-1SG with former-the.F.SG my-F.SG
 mamă vitregă. 19
 mother-F.SG step-F.SG

'Whenever I dream about myself in my parents' house, I dream about myself and my former step mother.'

b. voi nu mă cunoașteți și nici pe **fosta mea** you.2PL not me.ACC know-2.PL and neither PE former-the.F.SG my-F.SG **mamă** că acuma nu mai am.²⁰ mother-F.SG that now not more have-1SG 'you don't know either me or my former mother that now I don't have any more.'

In unmarked contexts, the adjectives used to refer to an entity's past time of existence are *dead | mort*, *late | răposat*, *deceased | decedat*, *defunct | defunct*, etc. For exemplification, we only examine contexts containing *late | răposat*. These non-temporal lexical adjectives are normally employed with animate, human entities:

- (16) a. Finally the hardest task of all is that he owes **his late friend Deord** the courtesy of informing the man's family that he died.²¹
 - b. **Her late mother** had owned a house in a tourist resort.²²
- acum treizeci de ani, răposata (17)mamă Sarei now thirty of years late-the.F.SG mother.F.SG AL.F.SG Sara-GEN fugit cu un tânăr misterios have .3 SG run with a.M. SG young .M. SG mysterious .M. SG with înainte de căsătoria câteva ei cu few-F.PL day.F.PL before of marriage-the.F.SG her with Sarei 23 tatăl father-the.M.SG Sarah-GEN '30 years ago, Sarah's late mother ran away with a mysterious young

man a few days before her marriage with Sarah's father.'

b. Uitați- vă, **răposata mama** trece

²¹ http://search.barnesandnoble.com/booksearch/isbninquiry.asp?ean=9780765309976&z=y.

¹⁹ http://forum.desprecopii.com/forum/topic.asp?whichpage=2&TOPIC ID=44109󠊒.

http://forum.softpedia.com/lofiversion/index.php/t93804.html

²² http://209.85.129.104/search?q=cache:zJ6lyzV2JmwJ:www.tm.lt/getfile.aspx%3Fdokid%3Da129c044-020 5-4ed1-b8a8-77b13e481364+%22her+late+mother%22&hl=ro&ct=clnk&cd=7&gl=ro&client=firefox-a.

²³ http://www.port.ro/pls/fi/films.film_page?i_film_id=73831&i_city_id=3372&i_county_id=-1&i_where=2.

look.2IMPER.PL you.REFL late-the.F.SG mother-the.F.SG pass-3SG.PRES trece prin livadă. E în rochie pass-3SG.PRES through orchard-F.SG be.3SG.PRES in dress.F.SG albă...²⁴ white-F.SG

'Behold, late mother is passing through the orchard. She is wearing a white dress.'

In marked contexts, however, such adjectives can also accompany nominals denoting non-human entities, be they animate or inanimate, as in (18)-(19a, b), and (18b)-(19c) below, respectively:

- (18) a. I've been thinking about **my late cat Padgett** a lot recently, as I have other friends going through the sadness of pets dying.²⁵
 - b. **the late house or nunnery** of Hedingham²⁶
- doarme pe preşul pe care dormea sleep-3SG.PRES on mat-the.N.SG PE which sleep-3SG.IMPERF răposata pisică.²⁷ late-the.F.SG cat-F.SG

'It is sleeping on the mat which the late cat used to sleep on.'

- b. Seamănă cu **răposatul câine al** resemble-3SG.PRES with late-the.M.SG dog.M.SG AL.M.SG **doamnei Olga**. 28 madam-F.SG.GEN Olga 'It resembles Mrs. Olga's late dog.'
- c. a lucrat în **decedata casă de** have.3SG.PRES worked in deceased-the.F.SG house-F.SG of **discuri** alfa sound.²⁹ record-N.PL Alfa Sound 'he worked in the late Alfa Sound Records House'

With [-animate nouns], when *former* / *fost* modify a nominal denoting an inanimate entity in a possessive context, they can locate in the past either of the three nominal times under discussion. This was shown in (12a)-(13a) repeated below. We add further examples in (20)-(21). Interestingly, the speaker in (20) refers to his sofa as if it were no longer his (with *former* indicating a past time of possession), although he has not got rid of it yet:

(12) That is **John's former house**. (Larson and Cho 2003, example (4))

http://cahiers-elizabeth.blogspot.com/2007/06/ive-been-thinking-about-my-late-cat.html.

²⁴ http://editura.liternet.ro/click.php?id=95&ver=pdf.

²⁶ http://www.oxford-shakespeare.com/new_files_mar_5_05/17.pdf.

²⁷ http://www.stresofobia.ro/viewtopic.php?t=321&sid=460c77197c632909276054c98f6bd88d.

²⁸ http://club.neogen.ro/clubProza/zilele-i-nop-ile-catrinei/126632/1.

²⁹ http://www.fanclub.ro/printthread.php?t=3926&page=2&pp=20.

- (Romanian) (13)fosta lui casă former-the.F.SG his house-F.SG his former house'
- I bought new sofas and looking to get rid of **former sofa**. 30 (20)
- într-o (21)Profesorul stătea odaie din teacher-the.M.SG stav-3SG.IMPERF in a.F.SG room.F.SG from fosta lui casă de pe strada Manutanței [...] former-the.F.SG his house-F.SG of on street-THE.F.SG Manutantei Jumătate din casă este întreagă și astăzi³ half-F.SG from house-F.SG be.3SG.PRES whole-F.SG and today 'The professor used to live in a room of his former house from Manutanței Street. Half of the house is whole even today.'
 - b. în calitate de chiriaslocatar in quality-F.SG of tenant.M.SG inhabitant.M.SG in former-the.F.SG lui casă [...].³² his house-F.SG 'as tenant-inhabitant in his former house'

To summarize, the examples presented in this section have shown that past oriented temporal adjectives like former / fost are sensitive to the animate vs inanimate properties of the nominal heads. More specifically, in unmarked contexts such adjectives cannot locate the time of existence of the entity denoted by a [+animate] nominal, whereas this option is possible with [-animate] ones.

3.1.2 Future-time oriented adjectives

As with past-time oriented adnominal modifiers, future / viitor can, in principle locate the nominal they modify at any of the three times: (i) the time of the predicate, (ii) the time of the possessive relation, or (iii) the time of existence of individuals. Differences arise, however, function of the semantics of the nominal head.

In combination with nominals denoting [+animate] entities, future / viitor can restrict either the nominal's predication time, or the time of the possessive relation:

- higher stress the younger the future father, and the shorter the couple's (22)relationship³³
 - Marty achieves his goal by inspiring his future father to stand up for his b. **future mother** when he decks the bully Biff.³⁴

³⁰ http://philadelphia.craigslist.org/fur/359193298.html.

http://www.scribd.com/doc/27664/George-Balaita-Lumea-in-doua-zile.

³² http://www.dilemaveche.ro/index.php?nr=153&cmd=articol&id=4710.

³³ http://www.kaimh.org/slides/father/father.PPT.

³⁴ http://blog.myspace.com/index.cfm?fuseaction=blog.view&friendID=116242341&blogID=202441230& Mytoken=1B1CA12E-FDD0-4F7C-B91D5A8EB8DC1F976074241.

- c. **His future wife, his future father-in-law**, and **his future dog** by marriage, all on the spot and doing their stuff before him. What could be sweeter?³⁵
- (23) a. **Viitoarea mea mamă soacră** este de admirat³⁶ future-the.F.SG my-F.SG mother-in-law-F.SG be.3SG.PRES of admire-SUP 'My future mother-in-law is worthy of admiration.'
 - b. Într-o zi din primăvara anului 1923 în chiar a.F.SG day.F.SG from spring-the.F.SG year-M.SG.GEN1923 in precisely Săptămâna Luminată, viitoarea mea mother week-the.F.SG bright-F.SG future-the.F.SG my-F.SG mother-F.SG pe Calea Victoriei [...]³⁷ mergea walk-3SG.IMPERF on Calea Victoriei 'On a spring day in 1923, precisely during the Bright Week, my future mother was walking down Calea Victoriei.'

As evident from the examples above, *future* / *viitor* could point to individuals that are not yet fathers, mothers or in-laws – as in (22a, b), (23a, b); or to individuals that can, in principle, be or become someone else's relatives or in-laws, not the speaker's – as in (22c). In the former case, the adjectives locate the nominal's predication time, in the latter they locate the time of the possessive relation associated with the nominal head.

The examples in (24)-(25) below further point to the relevance of the semantics of the nominal head for the readings obtained by temporal adjectives. Thus, in combination with nouns denoting [+animate] [-human] entities, *future* / *viitor* could refer to either the time of the possessive relation – the future dogs and cats currently belong to someone else, or the entity's time of existence – the dog in (25b) could be born sometime later than the moment these statements are uttered. One cannot say that *future* / *viitor* restrict the nominals' predication times in these cases since *dog* and *cat* are lifetime properties; therefore it is not possible to assume that an entity which currently exists in a certain non-dog / non-cat state will become a dog / cat in the future.

- (24) He's been sending me pictures of **his future dog** he's going to get.³⁸
- (25) a. Azi îmi iau și eu cățel [...] viitorul today 1SG.REFL.DAT take.1SG and I dogggie-the.M.SG future meu cățel are 6 săptămâni [...].³⁹ my-M.SG doggie-M.SG have-3SG.PRES 6 week-F.PL 'Today I'm going to get a dog, too. My future dog is 6 weeks old.'
 - b. Şi eu am emoţii pentru **viitorul meu** and I have-1SG.PRES emotion-F.PL for future-the.M.SG my-M.SG **căţel**, emoţii că nu voi şti cum să-1

³⁶ http://www.elady.ro/forums/lofiversion/index.php/t74.html.

³⁹ http://www.zooland.ro/module.php?module=comunitate&ctg=2&topica_id=1&opinia_id=379.

³⁵ http://www.pgwodehousesociety.org.uk/qq6170.htm.

³⁷ http://www.centrul-cultural-pitesti.ro/index.php?option=com_content&task=view&id=657&Itemid=83.

³⁸ http://members.tripod.com/kami_mlia/id3.html.

doggie.M.SG emotion-F.PL that not will.1SG know how să 3M.SGACC cresc 40

raise-1SG.SUBJ

'I too am nervous regarding my future dog, nervous that I won't know how to raise it.'

When combined with nouns denoting [-animate] entities, *future / viitor* can restrict either of the three times associated with nominal temporal interpretation:

- (26) a. All my attention is focused on "sometime later", and I pay little attention to today. I worry about a future job, a future house, a future relationship, etc. (Tonhauser 2006, example (41a))
 - b. Hey how's the high tech **future pencil** coming along?⁴¹
- (27) a. am încheiat un contract de economisire-creditare have-1SG closed a.M.SG contract.N.SG of saving-F.SG crediting-F.SG pentru viitoarea mea casă. 42

 for future-the.F.SG my-F.SG house-F.SG
 - 'I have signed a savings/loan contract for my future house.'
 - pe care îl b. primul Crăciun first-the.M.SG Christmas.N.SG PE which 3M.SG.ACC will.1SG petrece în viitoarea casă, pe care mea spend in future-the.F.SG my-F.SG house-F.SG PE which face la Ocna de Fier...⁴³ mivoi 1SG.DAT 3F.SG.ACC will.1SG make at Ocna de Fier 'the first Christmas that I'm going to spend in my future house, which I'm going to make at Ocna de Fier.'

As seen above, *future house / viitoarea mea* casă could refer to: future houses that currently exist in another form (they are, let's say, huts), thus locating the nominal's predication time, in (26a)-(27a); a present house that is not currently owned by the speaker who intends to buy it some time later (future time of the possessive relation, in (26a)-(27a), or entities that do not exist yet, but are being developed or will be built in the future (future time of existence of the entity denoted by the nominal, in (26b)-(27b)

The examples presented in this section have shown that future-time oriented temporal adjectives like *future / viitor* are sensitive to the animate vs inanimate properties of the nominal heads. Such adjectives cannot locate the time of existence of the entity denoted by a [+animate] nominal, whereas this option is possible with [-animate] ones.

3.1.3 Present-time oriented adjectives

BDD-A9882 © 2012 Universitatea din București Provided by Diacronia.ro for IP 216.73.216.51 (2025-12-10 00:12:28 UTC)

⁴⁰ http://www.husky.ro/modules.php?name=Forums&file=viewtopic&t=120.

⁴¹ http://profile.myspace.com/index.cfm?fuseaction=user.viewprofile&friendID=3332651.

⁴² http://www.121.ro/bilant2006/postari.php?&&pagina=21.

⁴³ http://carte.fotomat.ro/files/Download/haisa.pdf.

As far as present-time orientation is concerned, the examples in (28)-(29) point to the fact that the entities denoted by nominals are located in the present by default as long as they are not accompanied by either past- or future-time oriented adjectives. In other words, all the nominals in boldface below denote entities with a present time of existence:

- (28) a. I was optimistic when I bought **the house** because although I was single, I could envision sharing it with someone.⁴⁴
 - b. **My mother** went to the doctor for "injections" to help her back pain. 45
 - c. **A dog** barked under my window all night it was my neighbor's dog, a big German shepherd. 46
- (29) a. Am cumpărat **casa** legal.⁴⁷ have-1SG bought house-the.F.SG legally 'I bought the house legally.'
 - b. **Mama** s- a dus să lucreze în Italia⁴⁸ mother-the.F.SG REFL.3SG.ACC have.3SG gone SĂ work-3SG in Italy 'Mother went to work in Italy.'
 - c. Din când în când, **un câine** latră printre blocuri from when in when a.M.SG dog.M.SG bark.3SG among building-F.PL plictisit.⁴⁹ bored.M.SG 'From time to time, a dog barks among the buildings, bored.'

This does not mean that present temporal adjectives cannot be employed. Below we discuss some examples containing the English *present*, *current* and their Romanian equivalents *prezent*, *actual*. These present-time oriented adjectives are taken into consideration since they establish contextual oppositions with the other temporal adjectives (i.e. 'former' and 'future').

Whether *present | prezent* modify nouns denoting [+/-animate] entities, they exhibit the same general property: they emphasize the fact that the respective entities or possessive relations are located in the present, as opposed to other entities or possessive relations. Consider the examples under (30) and (31):

48 http://209.85.129.104/search?q=cache:Q26S_KsWP_IJ:www.centrulmedia.md/pdf/fotoscopii_2005.pdf.

BDD-A9882 © 2012 Universitatea din București Provided by Diacronia.ro for IP 216.73.216.51 (2025-12-10 00:12:28 UTC)

⁴⁴ http://www.thepropertymag.co.za/pages/452774491/articles/2004/November/A_lively_host_-_John_Perlm ans first house.asp.

⁴⁵ http://www.eorthopod.com/public/patient_education/3682/my_mother_went_to_the_doctor_for_injections_to_help.html.

⁴⁶ http://209.85.129.104/search?q=cache:MOJ5sA5-DhYJ:ling.snu.ac.kr/ko/publications/abstract/Ionin_Ko_Wexler_WCCFL_2003.pdf+%22a+dog+barked%22&hl=ro&ct=clnk&cd=5&gl=ro&client=firefox-a.

⁴⁷ http://www.romanialibera.ro/a94317/scandal-pe-casele-sasilor.html.

⁴⁹ http://alexbrie.net/c/myblog/words/vss-very-short-stories.

- (30) a. **The present house** was designed and built by David Bryce in 1861 when the old house was pulled down.⁵⁰
 - b. While in use, the lead in **the present pencil** is tightly pressed against the front end of the pencil [...]. 51
 - c. he purchased his present mills [...]. 52
 - d. Tim stressed that **his present mother** was 'so very sweet', but the previous mother seemed to be even more special.⁵³
 - e. Most of the songs on this CD were not professionally recorded, but instead copied from Jeff's personal tapes by **his ever-present mother**. ⁵⁴
 - f. **My present dog** is six years old. 55
 - g. I should upload a video of **my present cat** cause I swear he has got to be the only cat on the planet that is afraid of laser pointers. ⁵⁶
- (31) a. *prezenta mea casă present-the.F.SG my-F.SG house-F.SG 'my present house'
 - 6-a [...] sunt de.obicei a'. Energiile casei energy-the.F.PL house-F.SG.GEN AL.F.SG 6th be.3PL usually lui în acord cu cele ale Mercur, deci in agreement with CEL-F.PL AL-F.PL of.M Mercury so tranzitul acestuia prin prezenta transit-the.N.SG this-M.SG.DAT through present-the.F.SG fi chiar benefic.⁵ poate house-F.SG can-3SG be quite beneficial.M.SG

'The energies of the 6th house usually correspond to those of Mercury, therefore the latter's transit through the present house could be quite beneficial.'

- b. îl vom vedea (căzut) ca în **prezentul**3SG.M.ACC will-1PL see (fallen.M.SG) as in present-the.N.SG **tablou**. 58
 painting.N.SG
 - 'We'll see him fallen as in the present painting.'
- c. "Hogan Knows Best" (Hogan ştie cel mai bine) Hogan Knows Best Hogan know-3SG CEL.M.SG more well

⁵⁰ http://www.cringletie.com/hotel/history.

⁵¹ http://www.patentdigi.com/electrical_vehicle/writing_implement.html.

⁵² http://www.heritagepursuit.com/Seneca/SenBClinton.htm.

⁵³ http://www.prebirthexperience.com/Tim.htm.

⁵⁴ http://www.amazon.ca/Live-at-Lolympia-Jeff-Buckley/dp/customer-reviews/B00005JDJT.

⁵⁵ http://www.timbreblue.com/petdogs-l/getting_expected.htm.

⁵⁶ http://www.gametrailers.com/player/usermovies/74331.html.

⁵⁷ http://www2.webng.com/ezoastre/mercur.htm.

⁵⁸ http://www.ercis.ro/lumina/numar.asp?an=2005&numar=12&id=258.

prezintă viata fostului luptător present-3SG life-the.F.SG former-M.SG.GEN wrestler.M.SG and actor Hulk Hogan [...] evidențiind diferența dintre actor.M.SG Hulk Hogan emphasizing difference-the.F.SG between Hulk și prezentul tată Hogan.⁵⁹ fostul former-the.M.SG Hulk and present-the.M.SG father-M.SG Hogan "Hogan Knows Best" presents the life of the former wrestler and actor Hulk Hogan emphasizing the difference between the former Hulk and the present father Hogan.'

- d. Ghidată numai de instinct și de acea **mereu prezentă** guided-F.SG only by instinct.N.SG and by that-F.SG always present-F.SG **dorință de autodistrugere**...⁶⁰ desire-F.SG of self-destruction.F.SG 'guided only by instinct and by that ever-present desire for self-destruction'
- e. *prezentul meu câine present-the.M.SG my-M.SG dog.M.SG 'my present dog'

Thus, the present house in (30a), the present parents in (30d)-(31c) or the present pets in (30f, g) enter an opposition with the old house, the previous parents (30d) or stages of their parents (31c), or previous pets (30g, h). In these cases, the adjectives *present* / *prezent* locate the time of the nominal predicate or the time of the possessive relation associated with the nominal heads. The starred examples in (31a, e) are meant to indicate that the Romanian adjective *prezent* is not felicitous with inanimates and animate nonhumans. The felicitous example in (31a') contains a combination between *prezent* and a 'zodiacal house' – i.e. an abstract entity. Moreover, *present* / *prezent* seem to encode the notion of **visibility**, as in (30b, c) and (31b) which refer to entities which are not only located in the present, but also directly observable by the speaker. In addition, the adjectives *ever-present* / *mereu prezentă* in (30e)-(31d) reinforce the presence (visibility) of the respective mother/ desire as a pervasive quality.

The examples under (32) below are felicitous combinations with *actual* 'current⁶¹.

(32) a. Când m- am mutat în **actuala mea** when 1SG.REFL.ACC have-1SG moved in current-the.F.SG my-F.SG

.

⁵⁹ http://www.hotnews.ro/articol_18841-Noi-reality-show-uri-la-VH1.htm.

⁶⁰ http://ashwings.dcnet.ro/?cat=3.

⁶¹ The different usage of *prezent* and *actual* may be due to their semantics – i.e. the former is felt as more descriptive (hence more selective), while the latter is more abstract (hence, less selective). In fact, DEX (1998) lists similar meanings for the two adjectives, except for the fact that *prezent* has the additional (descriptive) meaning of 'Care se află în același loc cu vorbitorul sau în locul la care se referă vorbitorul: de față' (i.e. which is in the same place with the speaker or in the place the speaker refers to).

casă aveam pe jos pe hol și în house-F.SG have-1SG.IMPERF on down on hallway.N.SG and in verde.62 bucătărie un parchet kitchen-F.SG a.M.SG parquet.N.SG green.INVAR.SG 'When I moved into my current house I had green parquet on the floor in the hallway and in the kitchen.'

înainte de a îmi b. lua actuala pisică [...] nu before of to REFL.1SG.DAT take current-the.F.SG cat-F.SG decât vag de existenta hear.1SG.PAST PERF only vaguely of existence-the.F.SG AL.F.PL numeroase rase de pisici [...].⁶³ numerous-F.PL breed-F.PL of cat-F.PL 'Before getting my current cat I had only vaguely heard of the existence

To sum up, present-time oriented adjectives are used to establish contextual oppositions with the other temporal adjectives (i.e. 'former' and 'future'). The examples provided seem to point to the use of present / prezent to locate either the nominal's predication time or the time of the possessive relation.

of several breeds of cats.'

3.2 The account

Having presented a large number of contexts in which English and Romanian intensional temporal adjectives are used, we have noticed their uniform semantic interpretation. More precisely, the data have shown that such temporal adjectives are sensitive to the [+animate] or [-animate] properties of their head nouns. Adjectives of the type former / fost, etc. have been analyzed in the literature as non-intersective intensional adjectives (see Cornilescu 2009), which combine with the NP they modify by functional **application**). This assumption is made explicit in (33a, b):

```
(33)
                       former king \rightarrow [[former]<sub><<e,t>></sub>[king]<sub><e,t></sub>] \rightarrow \lambda x[[former][king]](x)
                                                                               (Cornilescu 2009, example (7))
                       future dog \rightarrow [[future]_{<<e,t>>}[dog]_{<e,t>}] \rightarrow \lambda x[[future][dog]](x)
           b.
```

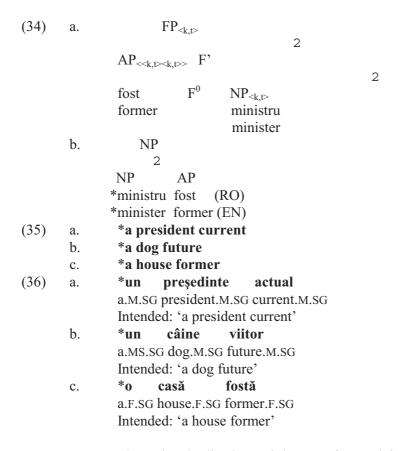
Both English and Romanian intensional adjectives of this type under are strictly prenominal (i.e. they cannot be merged as sisters of the NP). Hence, Cornilescu (2009: 42) a.o. argues that they can only merge as specifiers of the functional projections of the NP which the former "c-select and s-select" [emphasis in the original]⁶⁴. Consequently,

⁶² http://mintea-de-ceai.blogspot.com/2006/04/cezarica.html.

⁶³ http://www.egirl.ro/Animale-de-companie,c4,19.html.

⁶⁴ The s-selection requirement could be responsible for the variations in use that have been observed for various intensional adjectives expressing present-time orientation in Romanian, for instance.

"intensional As are subject to the linearization principle ruling over selected constituents. This is Select First, and it ensures that selected constituents, specifiers in the first place *precede the head*" [emphasis in the original] (Cornilescu 2009: 43).



Moreover, intensional adjectives of the type *former / fost*, *future / viitor* may cooccur in perfectly acceptable contexts, such as (37a, b)-(42a, b) below. Such examples are neatly explained if we assume that the adjectives in question merge as specifiers of NP, as proposed by Cornilescu (2009). The two co-occurring adjectives take scope over each other, since 'former future N' is not synonymous with 'future former N'.

- (37) a Someone who could be described as a "former future leader" is the young prime minister of Hesse, Roland Koch, but his chances have been destroyed in the secret funds affair and many people expect him to lose his position. (Tonhauser 2006:36, example (30a.))
 - b. yet another **future former** leader of the Conservative Party⁶⁵

_

⁶⁵ http://news.bbc.co.uk/2/hi/uk news/politics/3529056.stm.

fostă viitoare (38)Sunt mămică. be.1SG a.F.SG former-F.SG future-F.SG mother-DIMIN.F.SG Fetitele mele (gemene) au daughter-DIMIN-F.PL-the my-F.PL (twin.F.PL) have-3PL five months acum.66 now 'I am a former future mother. My (twin) daughters are 5 months old now.' de viitoare b. Şi iată-mă acum în postura fostă and look me.ACC now in position-the.F.SG of future.F.SG former.F.SG mămică. 67 mother-DIMIN-F.SG 'And here I am now in the position of a future former mother.'

As evident from (39) below, we may posit two functional phrases that may host the two specifiers containing intensional adjectives:

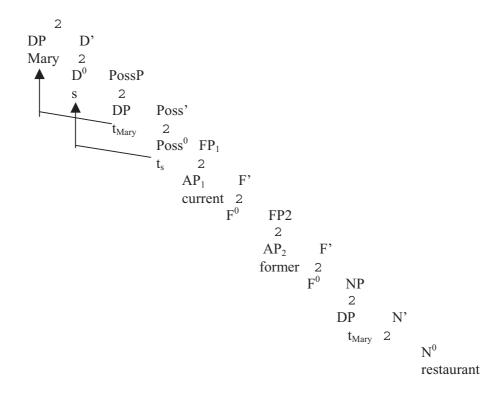
Furthermore, we would like to address the issue of the three times an intensional adjective may denote: (i) the time of the nominal predicate, (ii) the time of the possessive relation, and (iii) the time of existence of the individual denoted by a certain nominal:

- (40) a. My former restaurants include...
 b. My current former restaurants include...(Larson 1998, examples (25)(26))
- (41) a. [DP My [Poss [NP former [NP restaurants]]]] ('formerly restaurants') (Larson 1998, example (28))
 - b. [DP My [DP former [Poss [NP restaurants]]]] ('formerly mine')
- (42) DP

_

 $^{^{66}}$ http://forum.desprecopii.com/forum/post.asp?method=ReplyQuote&REPLY_ID=1983205&TOPIC_ID=5586&FORUMID=60.

⁶⁷ http://forum.desprecopii.com/forum/pop_printer_friendly.asp?TOPIC_ID=61046.



Firstly, we consider that an intensional adjective denotes the time of the nominal predicate when it is merged in the specifier of the NP, as in (39) and (41a.) above.

Secondly, Larson (1998) and Larson and Cho (1998, 2003) propose that an intensional adjective denotes the time of the possessive relation when it is merged in the specifier of the DP, as in (41b.) above⁶⁸. However, Cornilescu (2009) argues that intensional temporal adjectives of the type *former* / *fost* and *future* / *viitor* are, in fact, NP adjectives with non-intersective kind-level reading, in all their uses (contra Larson 1998, and Larson and Cho 1998, 2003). As such, they are projected in the specifier of a functional head whose role is to c-select and s-select the required NP argument. Consequently, intensional adjectives are subject to Select First, the linearization principle ruling over selected constituents, which ensures that intensional adjectives remain prenominal. This is represented in phrase marker (42) above. When the temporal adjective is understood as locating the time of the possessive relation, we believe it scopes outside the possessive phrase (in other words, the Possessor is reconstructed in its base position).

Thirdly, building on Musan (1995, 1997, 1999) we consider that the time of existence of the individual denoted by a certain nominal is contextually-provided (for instance by the lexical meaning of non-temporal adjectives such as *late / răposat*).

In a nutshell, intensional temporal adjectives always obtain non-intersective readings. They may be used to **locate the temporal variable(s) of the nominal heads**.

_

⁶⁸ For the distinction between NP versus DP adjectives, see Larson (1998, 2000), Larson and Marušič (2004), Cornilescu (2006, 2009).

When they refer to the time of the nominal predicate, they are merged in the specifier of NP, whereas when they refer to the time of the possessive relation or the time of existence of the entity denoted by the head nominal, they are merged in the specifier of a functional head which c-selects and s-selects a certain NP argument.

4. Conclusions

The data presented in this paper illustrate the use of two types of temporal adjectives in English and Romanian: relational and intensional adjectives. Firstly, we have shown that relational adjectives of the type *antique | antic* and *modern | modern |* which have been described as intersective kind-level adjectives (see McNally and Boleda Torrent 2004) - do not modify the temporal existence of the entities they are predicated of. Secondly, intensional adjectives of the type *former | fost*, *future | viitor -* which have been described as non-intersective kind-level modifiers (see Cornilescu 2009) – do modify the temporal existence of the entities they are predicated of.

Moreover, we have illustrated the fact that English and Romanian use intensional temporal adjectives to encode nominal temporal such as: (i) the time of the nominal predicate, (ii) the time of the possessive relation, or (iii) the time of existence of individuals.

Furthermore, intensional temporal adjectives have been shown to be sensitive to the semantics of the modified nominals, at least to the animate versus inanimate distinction.

References

- Alexiadou, A. 2005. Tense (and Mood) in the nominal domain(?). Paper presented at *The Workshop on the Linguistic Representation of Tense and Mood*, Stuttgart, December 2005.
- Cornilescu, A. 2006. Modes of semantic combinations: NP / DP. Adjectives and the structure of the Romanian DP". In J. Doetjies, J. and P. González (eds.), *Romance Languages and Linguistic Theory* 2004, 43-69. Amsterdam / Philadelphia: John Benjamins.
- Cornilescu, A. 2009. On the linearization of adjectives in Romanian. In D. Torck and W. Leo Wetzels (eds.), *Romance Languages and Linguistic Theory* 2006, 33-52. Amsterdam / Philadelphia: John Benjamins.
- Demonte, V. 1997. Pre and post nominal adjectives in Spanish and the structure of DP. Handout of paper presented at *Going Romance*, Groningen.
- DEX '98. Academia Română, Institutul de Lingvistică "Iorgu Iordan". 1998. *Dicționarul explicativ al limbii române*. Bucharest: Editura Univers Enciclopedic.
- Dima, V.V. 2011. The aspect-based temporal interpretations of nominals. In *Research Topics: A Selection of Papers presented at the Annual Conference of the Faculty of Foreign Languages and Literatures, Bucharest, 7-8 November 2008,* 32-44. Bucharest: Editura Universității din București.
- Kratzer, A. 1988. Stage-level and individual-level predicates. In E. Bach, A. Kratzer, and B. Partee (eds.), *Papers on Quantification*, 147-222. Amherst, MA: University of Massachusetts at Amherst.
- Kremers, J. 2004. The Arabic Noun Phrase. A Minimalist Perspective. PhD dissertation, University of Utrecht.
- Larson, R. K 1998. Events and modification in nominals. In D. Strolovitch and A. Lawson (eds.), Proceedings from Semantics and Linguistic Theory VIII, 145-168. Ithaca, NY: Cornell University.
- Larson, R. K. 2000. Temporal modification in nominals. Handout of paper presented at the *International Round Table The Syntax of Tense and Aspect*, Paris, November 15-18, 2000. http://semlab5.sbs.sunysb.edu/~rlarson/ParisHandout.pdf>.

- Larson, R. K. and Cho, S. 1998. Temporal modification and the DP hypothesis. Paper presented at the UCLA Tense Workshop, May 16-20, 1998.
- Larson, R. K. and Cho, S. 2003. Temporal adjectives and the structure of possessive DPs. *Natural Language Semantics* 11 (3): 217-247.
- Larson, R. K. and Marušič, F. 2004. On indefinite pronoun structures with APs. Reply to Kishimoto. Linguistic Inquiry 34 (2): 268-287
- Lecarme, J. 1996. Tense in the nominal system: The Somali DP. In J. Lecarme, J. Lowenstamm, and U. Shlonsky (eds.), *Studies in Afroasiatic Grammar*, 159-178. The Hague: Holland Academic Graphics.
- Lecarme, J. 1999. Nominal tense and tense theory. In F. Corblin, C. Dobrovie Sorin, and J.-M. Marandin (eds.), *Empirical Issues in Syntax and Semantics 2. Papers from CSSP 1997*, 333-354. The Hague: Thesus.
- Lecarme, J. 2003. Nominal tense and evidentiality. In J. Guéron and L. Tasmowski (eds.), *Tense and Point of View*, 277-299. Paris: Presses de l'Université Parix X-Nanterre.
- Lecarme, J. 2004a. On three interpretations of past determiners in Somali. Handout of paper presented at *The 27th GLOW Colloquium*, Thessaloniki, April 19-21, 2004.
- Lecarme, J. 2004b. Tense in nominals. In J. Guéron and J. Lecarme (eds.), *The Syntax of Time*, 440-475. Cambridge, MA: MIT Press.
- Lecarme, J. 2005. Tense and modality in nominals. Handout of paper presented at *Time and Modality*, Université Paris 3 and Université Paris 7, December 8-10, 2005.
- McNally, Louise and Boleda Torrent, G. 2004. Relational adjectives as properties of kinds. In O. Bonami and P. Cabredo Hofherr (eds.), *Empirical Issues in Formal Syntax and Semantics* 5, 179-196. www.cssp.cnrs.fr/eiss5/index en.html>.
- Musan, R. 1995. On the Temporal Interpretation of Noun Phrases, PhD dissertation, MIT.
- Musan, R. 1997. Tense, predicates and lifetime effects. Natural Language Semantics 5 (3): 271-301.
- Musan, R. 1999. Temporal interpretation and information-status of noun phrases. *Linguistics and Philosophy* 22: 621-661.
- Pustejovsky, J. 1995. The Generative Lexicon. Cambridge, MA: MIT Press.
- Pustejovsky, J. 1998. The semantics of lexical underspecification. Folia Linguistica XXXII (3-4): 323-347.
- Pustejovsky, J. 2000. Events and the semantics of opposition. In C. Tenny and J. Pustejovsky (eds.), *Events as Grammatical Objects*, 445-482. Stanford, CA: CSLI Publications.
- Tonhauser, J. 2006. The Temporal Semantics of Noun Phrases: Evidence from Guaraní. PhD dissertation, Stanford University.