

Bare nominals and incorporating verbs in Spanish and Catalan¹

M. Teresa Espinal
Universitat Autònoma de Barcelona
Teresa.Espinal@uab.cat

Louise McNally
Universitat Pompeu Fabra
Louise.McNally@upf.edu

ABSTRACT

This paper presents an analysis of bare nominals unmarked for number (BNs) occurring in object position in Spanish and Catalan, on which the BN is a syntactic complement to the verb, but not a semantic argument. After describing the properties that distinguish BNs from other indefinite expressions (bare plurals, indefinite singulars preceded by *un* ‘a’, and bare mass terms), we argue that these BNs occur in a monadic syntactic configuration in the sense of Hale and Keyser 1998, that they denote first-order properties, and that they are combined with the verb via a modified version of Dayal’s (2003) semantics for pseudo-incorporation. Specifically, the proposal consists of a lexical rule that generates the class of verbs that productively accept BN objects, plus a composition rule that treats the BN as modifier of the verb. We point out the advantages of this analysis over three other well-known semantic analyses for combining verbs with property-type nominals. Finally, we show how the analysis can be naturally extended to existential sentences, which combine with BNs although, *prima facie*, they do not appear to meet the lexical conditions for doing so.

1. INTRODUCTION

Under the most classical view of the syntax-semantics interface (explicit in Montague 1974, but implicit in much other work), if an expression is a syntactic complement to a verb, it will also be a semantic argument. Though this view is certainly elegant and well supported in general in natural language, in this paper we argue that it cannot be maintained for bare count nominals (BNs) in object position in Spanish and Catalan, such as those in (1).²

¹ We thank Mark Baker, Carmen Dobrovie-Sorin, Brenda Laca, Jaume Mateu, two anonymous reviewers, and the audiences of the III Nereus International Workshop: Definiteness, Specificity and Animacy in Ibero-Romance Languages (Alcalá de Henares, 2006), the Cognitive Science and Language workshop (Barcelona, 2006), the Workshop on Bare Nouns and Nominalizations (Stuttgart, 2007), the 38th Linguistic Symposium on Romance Languages (Urbana-Champaign, 2008), the IV NEREUS International Workshop on Definiteness and DP structure in Romance Languages (Bellaterra, 2008), the Workshop on Bare Singulars, Argument Structure and Their Interpretation (Bellaterra, 2008), the Workshop on Converging Linguistics and Cognitive Science: Nominal Systems Across Languages (Barcelona, 2009), and the Workshop on Bare Nouns: Syntactic Projections and their Interpretation (Paris, 2009). We also gratefully acknowledge the financial support of the Spanish Ministry of Science and Innovation (grants HUM2006-13295-C02-01FILO, HF2007-0039, HUM2007-60599) and the Generalitat de Catalunya (grants 2009SGR1079, 2005SGR00067, a Distinció de la Generalitat per a la Promoció de la Recerca Universitària, and an ICREA Acadèmia award).

² To our knowledge, there are no differences in the distribution or behavior of BNs in Catalan and Spanish; therefore, once the initial examples have been presented, for ease of exposition we will often illustrate a point using only one of the two languages, and unless specifically indicated otherwise the reader should understand that analogous data could be provided in the other language as well. In this

- (b) Lleva sombrero. / Porta barret.
wears hat wears hat
'(S)he wears a hat.' (i.e. (S)he is a hat-wearer.)
- (c) Tiene apartamento. / Té apartament.
has apartment has apartment
'(S)he has an apartment.' (i.e. (S)he is an apartment-owner.)
- (d) Esta tarde hay reunión. / Aquesta tarda hi ha reunió.
this afternoon has.there meeting this afternoon there has meeting
'There is a meeting this afternoon.'

A first, very basic observation about this construction is that the verbs that allow BNs in Spanish and Catalan require an overt expression in object position; see Catalan (4).

- (4)(a) *En Joan necessita/porta/té.
DET Joan needs/wears/has
- (b) *Hi ha.
there has

Moreover, doubling of the BN by a full DP is not permitted, in contrast to what is observed, for example, with superficially similar nominals in Chamorro (see Chung & Ladusaw 2004 and Section 4.4, below).

- (5) (a) *Tengo piso un duplex. / *Tinc pis un duplex.
have apartment a duplex have apartment a duplex
- (b) *Buscó pareja este camarero. / *Va buscar parella aquest cambrer.
looked.for partner this waiter / PAST look.for partner this waiter

These data constitute a first piece of evidence that the BN is the syntactic complement of the verb: if it were fulfilling some other function (as do the relevant nominals in Chamorro), then the facts in (4) would predict that the DPs in (5) would not only be possible, but in fact obligatory.

The existence of object BNs in Spanish and Catalan is initially surprising, given that Chierchia (1998) suggests that BNs are never found in argument position in the Romance languages. According to his Nominal Mapping Parameter, determinerless nominals in Spanish and Catalan, as in other Romance languages, are assigned the features [-arg, +pred]; that is, they should behave only as predicates and not appear in argument position unless a null D(eterminer) category is projected along with them, under the hypothesis that either a null or overt D is required to give the BN the right sort of semantics to appear in an argument position (see e.g. Longobardi 1994, 2001). However, there is no evidence that a null D should be posited with object BNs: if a null D were what licenses object BNs, we would expect them to appear freely as verbal complements, but they cannot (contrast (6a) with (1), (3), and (6b)).

- (6) (a) *Cierro puerta / *Tanco porta.
 close-1SG door close-1SG door
- (b) Cierro la puerta / Tanco la porta.
 close-1SG the door close-1SG the door
 ‘I’m closing the door.’

Rather than stipulating when a null D is or is not possible, it seems more reasonable to develop an account of when a BN might or might not be possible.

It turns out that BNs are possible not only in Spanish and Catalan: various studies (cf. Schmitt & Munn 1999, Dobrovie-Sorin et al. 2006, among others) and interviews with native speakers have shown that they are in fact well-attested and rather productive in Romanian, Italian, and European and Brazilian Portuguese, among others. This fact raises the following basic alternative: either Chierchia’s parameterization of Romance BNs is incorrect, or we have to consider the possibility that the BNs in (1) and (3) are not arguments in the relevant sense. The analysis we eventually advocate, insofar as it will treat the BN as a verb modifier, could be viewed as support for the latter conclusion for Spanish and Catalan (in contrast to e.g. the conclusion that Schmitt & Munn 1999 draw for Brazilian Portuguese); however, the viability of Nominal Mapping Parameter will not be a focus of this paper, and we will not discuss this issue further here.

As a final preliminary comment, it is important to note that the expressions in (1) and (3) are not idiomatic or fixed: any BN can appear as an object, as long as the overall interpretive conditions on the resulting verb phrase (described in detail below) are satisfied. However, we will see shortly that, in contrast, the class of verbs that can take object BNs is heavily constrained by the grammar.

In order to motivate our syntactic and semantic analysis, we must first clarify the semantic properties of BNs, of the verbs that combine with them, and of the resulting verb phrases. We now turn to this task.

2.1. *The interpretation of BNs vs. that of other nominals*

Spanish and Catalan object BNs are semantically distinct not only from proper names and definites but also from three other classes of indefinite nominal expressions: singular indefinites (see (2)), bare plurals (henceforth, BPs; see (7a)), and bare mass terms (see (7b)).

- (7) (a) Busco pisos. / Busco pisos.
 look.for-1SG flats look.for-1SG flats
 ‘I’m looking for flats.’
- (b) Busco cerveza. / Busco cervesa.
 look.for-1SG beer look.for-1SG beer
 ‘I’m looking for beer.’

At least two tests show that BNs are semantically more similar to BPs than they are to singular indefinites with a determiner, in spite of the English glosses for the examples in

(1) and (3).³ First, the data in (8) show that the scopal behavior of BNs resembles that of BPs rather than that of singular indefinites: whereas the bare nominals in (8a) and (8b) only take narrow scope with respect to negation, the singular indefinite in (8c) can take either narrow scope (i.e. the speaker is not looking for any flat) or wide scope (i.e. there is a flat the speaker is not looking for).

(8) (a) No busco piso. / No busco pis.
not look.for-1SG flat not look.for-1SG flat
'I'm not looking for a(ny) flat.'

(b) No busco pisos. / No busco pisos.
not look.for-1SG flats not look.for-1SG flats
'I'm not looking for (any) flats.'

(c) No busco un piso. / No busco un pis.
not look.for-1SG a flat not look.for-1SG a flat
'I'm not looking for any flat./There is a flat I am not looking for.'

Second, the data in (9) illustrate – using Catalan – a difference involving the effect of the nominal on the telicity of a sentence. Neither BNs nor BPs can induce a telic reading on a verb otherwise unspecified for telicity. (9a) and (9b) exclude the temporal *en* 'in' adjunct admitted by telic predicates, allowing instead only a durative adjunct. In contrast, a singular indefinite can induce telicity, as the acceptable *en* adjunct in (9c) shows.⁴

(9) (a) Ha buscat pis #*en* una setmana. / *durant* una setmana.
has looked.for flat in a week / during a week
'(S)he has looked for a flat for a week.'

(b) Ha buscat pisos #*en* una setmana. / *durant* una setmana.
has looked.for flats in a week / during a week
'(S)he has looked for flats for a week.'

(c) Ha buscat un pis *en* una setmana / *durant* una setmana.
has looked.for a flat in one week / during a week
'(S)he has looked for and found a flat in a week.' / (S)he has looked for a flat for a week.'

This similarity between BNs and BPs cannot be explained by positing that BNs are coerced into a mass interpretation. BNs are distinct from mass nouns,⁵ as is most clearly evident in the fact that, unlike mass nouns, they cannot be modified by a measure phrase, as the contrast in (10), from Catalan, shows.

³ See Longobardi (2001, 2005) for additional discussion of the semantic properties of singular count nominals. Spanish and Catalan BNs contrast with singular count nominals on all of the diagnostics mentioned by Longobardi.

⁴ A similar observation is made by Munn & Schmitt (2005: 827) for Brazilian Portuguese.

⁵ A similar observation is made by Déprez (2005: 864) for Haitian Creole. See Espinal (in press) for more on the differences between BNs and bare mass nouns.

(10)(a) L'ampolla té *dos litres d'aigua*. - *tenir aigua* 'have water'
 the bottle has two liters of water
 'The bottle contains two liters of water.'

(b) *L'edifici té *una tonelada d'ascensor*. - *tenir ascensor* 'have a lift'
 the building has one ton of lift

Despite these similarities, in other ways BNs contrast not only with singular indefinites but also with BPs. First, BNs, but not singular indefinites or BPs, are number neutral. Farkas & de Swart (2003) argue for number neutrality on the basis of Hungarian examples like those in (11), which show that BNs in Hungarian can serve not only to describe what is likely to be an atomic individual (see (11a)), but also to describe what must be a group of objects (see (11b)).

(11)(a) Feri feleséget keres.
 Feri wife-acc seek
 'Feri wife-seeks.' Or: 'Feri is looking for a wife.'

(b) Mari bélyeget gyűjt.
 Mari stamp-acc collect
 'Mari stamp-collects.' Or: 'Mari is collecting stamps.'

Since there are no predicates like *collect* in Spanish and Catalan that take BN complements (see below), we use a slightly different diagnostic to illustrate number neutrality. When a singular indefinite or a BP is introduced in declarative discourse, the possibilities for felicitous continuations show sensitivity to number: If a singular indefinite is used, the default implication is that it describes an atomic individual; if a BP is used, the default implication is that a non-atomic individual is being described. The contrast in the acceptable vs. unacceptable continuations in the Catalan examples in (12a-b) illustrates. The first sentence in (12a) strongly implies that the speaker is looking for exactly one apartment; the first sentence in (12b) implies the opposite.

(12)(a) Busco un pis. {Un a Barcelona. / # Un a Barcelona i un a Girona}
 look.for-1SG an apartment one in B. one in B. and one in G.
 'I'm looking for an apartment. One in Barcelona.'

(b) Busco pisos. {# Un a Barcelona. / Un a Barcelona i un a Girona}
 look.for-1SG apartments one in B. one in B. and one in G.
 'I'm looking for apartments. One in Barcelona and one in Girona.'

However, the behavior of BNs is strikingly different: the first sentence in (13) is equally compatible with subsequent reference to one apartment or to more than one, indicating that the BN carries no implication concerning the plurality or singularity of the individual(s) it describes.

(13) Busco pis. {Un a Barcelona. / Un a Barcelona i un a Girona}.
 look.for-1SG apartment one in B. one in B. and one in G.
 'I'm looking for an apartment. {One in Bcn. / One in Bcn. and one in Girona.}'

In this respect Catalan and Spanish BNs closely resemble those in Hungarian.

A second contrast between BNs vs. BPs and singular indefinites involves the general failure of the former to take on any discourse referential properties. There are various ways in which this contrast manifests itself. Consider first discourse anaphora. To make this point we use Catalan, which has a richer system of pronominal anaphora than does Spanish. In addition to personal pronouns, Catalan, like French and Italian, has a partitive pronoun *en*. This pronoun picks up a common noun denotation only (leaving aside the contribution of numerals or determiners), as seen in the following contrast.

(14)(a) Pensava que veuria dos amics, però n' he vist tres.
 thought-1SG that see-1SG.COND two friends but PART have-1SG seen three
 'I thought I would see two friends, but I have seen three.'

(b) *Pensava que veuria el meu amic i n' he vist.
 thought-1SG that see-1SG.COND the my friend and PART have-1SG seen

In (14a) *en* is anaphoric to *amics*; (14b) is unacceptable because the context suggests that anaphora to *el meu amic* is intended, which is impossible with *en*. If anaphora to *el meu amic* is desired, a personal pronoun must be used.

(15) Pensava que veuria el meu amic i l' he vist.
 thought-1SG that see-1SG.COND the my friend and him have-1SG seen
 'I thought I would see my friend, and I have seen him.'

With this background in mind, observe that while BPs and singular indefinites freely serve as antecedents for personal pronouns (assuming no scope taking element intervenes to block discourse anaphora), BNs are severely limited in their ability to do so.⁶ The contrast in (16), from Catalan, illustrates. Note that the sentence containing the BN is in an episodic tense and that there is no scope-taking element that could plausibly block discourse anaphora.

(16)(a) Avui porta faldilla. #La hi vam regalar l'any passat.
 today wear-3SG skirt. it to.her PAST-1PL give.present the year last
 'Today she is wearing a skirt. We gave it to her as a present last year.'

(b) Avui porta una faldilla. La hi vam regalar l'any passat.
 today wear-3SG a skirt. it to-her PAST-1PL give.present the year last
 'Today she is wearing a skirt. We gave it to her as a present last year.'

⁶ When BNs serve as objects of prepositions (e.g. Spanish *en cama* 'in bed'; Catalan *a casa* 'at home', *fora ciutat* 'out of city'), the combined P + BN can be as the antecedent of a locative pronoun. In some of these cases, the location in question seems to be determined deictically, rather than being indefinite (see Stvan 2009 on this use of BNs in English). Since the semantic properties of the P + BN construction differ in both of these respects from what we observe for V + BN combinations, we conclude that the two constructions must be given different treatments; we leave the P + BN construction for future research.

- (c) Avui porta *bracelets*. Els hi vam regalar l'any passat.
 today wear-3SG bracelets. them to-her PAST.1PL give.present the year last
 'Today she is wearing bracelets. We gave them to her as a present last year.'

The only pronoun which can be systematically used to refer back to a BN is *en*:

- (17) Avui porta *faldilla*. Li 'n vam regalar una l'any passat.
 today wear-3SG skirt. to-her PART PAST-1PL give.present one the year last
 'Today she is wearing a skirt. We gave her one as a present last year.'

These anaphora facts strongly suggest that BNs have the same denotation as common nouns – i.e. that they denote properties – and that they are not used to introduce discourse referents to token individuals of the sort that a personal pronoun picks up on.⁷

A second reference-related contrast between BNs, on the one hand, and singular indefinites and BPs, on the other, involves their ability to license non-restrictive relative clauses. Unlike singular indefinites and BPs, BNs are unable to host non-restrictive relative clauses which describe a token individual, as (18), from Catalan, shows:

- (18)(a) *Per fi hem trobat *pis*, *que* començarem a reformar molt aviat.
 for final have-1SG found apartment that begin-1PL.FUT to renovate very soon
- (b) Per fi hem trobat *un pis*, *que* començarem a reformar molt aviat.
 for final have-1SG found an apartment that begin-1PL.FUT to renovate very soon
 'At last we have found an apartment, which we'll begin to renovate very soon.'
- (c) Per fi hem trobat *pisos*, *que* començarem a reformar molt aviat.
 for final have-1SG found apartments that begin-1PL.FUT to renovate very soon
 'At last we have found apartments, which we'll begin to renovate very soon.'

As observed in Potts (2005) and elsewhere, non-restrictive relative clauses are only licensed if the (full) expression they modify denotes an entity of the sort the relative clause can apply to. The facts in (18), like those involving discourse anaphora, thus strongly indicate that BNs neither denote token individuals nor in any other way introduce discourse referents corresponding to such individuals.

A third contrast between BNs on the one hand, and singular indefinites and BPs, on the other, is that a BN cannot be the controller of an implicit subject, whereas singular indefinites and BPs can. See the Catalan data in (19).

- (19)(a) *Busco *pis* per PRO ser compartit.
 look-for-1SG apartment to PRO be shared

⁷ See Borthen (2003) for essentially the same observation for BNs in Norwegian, where she observes that Norwegian BNs allow only “type” anaphora and not “token” anaphora. For reasons that will become explicit below, we prefer a distinction to be made between anaphora to properties and anaphora to individuals. See Espinal (2009) for an analysis of the various types of reference to abstract semantic objects that different clitic pronouns encode.

Note also that in (16b) the indefinite DP *una faldilla* ‘a skirt’ has a specific interpretation. On a nonspecific interpretation, it would be referred back to by means of the property-denoting pronoun *en*, as is also illustrated in (17). We thank Jaume Mateu for this comment.

(b) Busco *un pis* per PRO ser compartit.
 look-for-1SG a apartment to PRO be shared
 ‘I’m looking for an apartment to be shared.’

(c) Busco *pisos* per PRO ser compartits.
 look-for-1SG apartments to PRO be shared
 ‘I’m looking for apartments to be shared.’

Finally, the examples in (20)–(22), again from Catalan, show that locative modifiers (*a la mà* ‘in his hand’, *al garatge* ‘in the garage’) and secondary predicates (*a punt* ‘ready’) are incompatible with BNs, but not with singular indefinites or BPs.

(20)(a) En Joan porta motxilla (*a la mà).
 DET Joan carries backpack at the hand.
 ‘Joan carries a backpack in his hand.’

(b) En Joan porta la motxilla a la mà.
 DET Joan carries the backpack at the hand
 ‘Joan carries the backpack in his hand.’

(21)(a) Tinc cotxe (*al garatge).
 have car at-the garage
 ‘I have a car in the garage.’

(b) Tinc un cotxe / cotxes al garatge.
 have a car / cars at-the garage
 ‘I have a car / some cars in the garage.’

(22)(a) Tinc cotxe (*a punt).
 have car at point

(b) Tinc el cotxe a punt.
 have the car at point
 ‘I have the car ready.’

We will argue below that both for control and for small clause predication, the syntax requires the BN to appear in a subject position, and that such positions require some sort of discourse referent associated with them which neither the BN nor any other element in the sentence can provide.

Despite the robustness of the contrasts in (16)–(22), discourses such as those in (23) are acceptable, in which a BN *does* appear to license discourse anaphora to the third person accusative pronouns *la* and *el*.

(23)(a) Per la festa es va posar *faldilla*. Se l’havia comprat la tarda anterior.
 to the party Cl PAST put-on skirt Cl it had bought the afternoon before
 ‘She put on a skirt for the party. She had bought it the day before in the afternoon.’

(b) Ja tinc *pis*. El vaig comprar ahir.
 already have apartment it PAST.1sg buy yesterday
 ‘I already have an apartment. I bought it yesterday.’

However, we maintain that in such examples the pronoun in question is not directly anaphoric to the bare singular but rather has an antecedent that is accommodated by the hearer into the common ground (see e.g. Lewis 1979, Beaver & Zeevat 2007 on accommodation). Though a full account of what permits accommodation in (23) but not (16a) must await future research, we offer the following suggestion. An important difference between the discourses in (16) and those in (23) lies in the rhetorical relations they manifest and the corresponding intuition about what the discourse topics are in each case (see Jasinskaja 2008 for a recent discussion of rhetorical relations and topicality). The second sentence in each of the acceptable examples in (16) is connected to its predecessor only insofar as it provides a description of an object which is mentioned in the predecessor – a skirt or bracelets. Given that the verb in the first sentence (*portar* ‘wear’) has a low degree of informativity in relation to clothing/accessories and appears in the simple present tense, this sentence is most naturally understood as simply introducing the clothing/accessories as a discourse topic, and the second sentence in each case elaborates on the description of the item in question. (16a) thus shows that a BN cannot be used to introduce a new discourse topic – exactly what we expect if it fails to introduce a discourse referent corresponding to an individual.

In contrast, in (23), various elements in each sentence conspire to make it easier to interpret the discourse topic as something other than just an individual putatively corresponding to the BN. In (23a), two factors contribute to the intuition that the discourse topic could be something like “What did the subject wear on which occasion (and why)?” First, the PP *Per la festa* appears in a position associated with contrastive topics, facilitating the intuition that the party could be contrasted with some other occasion. Second, the continuation in (23a) places the skirt buying close in time to the skirt wearing, suggesting that (in contrast to what happens in (16a)), the continuation serves not so much to further describe the skirt as to explain why the skirt was worn. The implication of contrast (here, between what was worn to the party vs. on other occasions) has been shown by Ward et al. (1991) to facilitate discourse anaphora in cases similar to those we are considering here.

In the case of (23b), the adverb *ja* ‘already’ implies the information that the speaker has an apartment sooner than might have been expected (see e.g. Mittwoch 1993 on *already*), indicating that this discourse must be added to a common ground in which some discussion of an apartment has already taken place, including possibly the specific apartment that the speaker bought – in other words, the discourse topic is more the apartment search and purchase than the apartment itself. However, Ward et al.

(1991) also show that discourse anaphora can be facilitated when the pronoun refers to an object that is sufficiently topical. The apartment certainly qualifies in this case.

From the previous discussion we conclude that if BNs introduced discourse referents to individuals (as can singular indefinites and BPs), anaphora to the BN with an accusative pronoun would *always* be possible in the same cases that such anaphora is possible for singular (in)definites and BPs. The fact that it is not clearly calls for a semantics that distinguishes BNs from other kinds of (in)definites.

2.2. *The predicates licensing object BNs*

Let us now consider the verbs that license these BNs. BNs in Spanish and Catalan are largely restricted to a particular class of verbs that we will call ‘HAVE’-PREDICATES, following Borthen (2003),⁸ who argues that a similar class is relevant for the distribution of BNs in Norwegian. According to Borthen (2003: 190), a ‘have’-predicate is a word that introduces either explicitly or implicitly what she calls a PROFILED *HAVE*-RELATION, where “a *have*-relation is an asymmetrical coexistence relation between two arguments, called *the possessor* and *the possessed*, where the possessor is *superior* to the possessed rather than the other way round. (...) An argument can be *superior* to some other argument in terms of control, part-whole dependency, animacy, or point of view.” Though there are some differences between the distribution of BNs in Norwegian vs. Spanish and Catalan, to be discussed below, this definition offers a good first approximation of the class of verbs involved.

As the examples we have already used indicate, the class of predicates that license BNs in Catalan and Spanish is not limited to verbs of having, strictly speaking, such as *tener* / *tenir* ‘have’, or *poseer* / *posseir* ‘possess’, the latter of which is exemplified in (24), from Spanish.⁹

- (24) Este proyecto posee licencia municipal.
 this project possesses permit municipal
 ‘This project has a permit from the city.’

⁸ Note that this restriction does not apply when the nominal in object position is a mass or an abstract noun (e.g., Spanish *hacer fuego* ‘make fire’; Catalan *fer fallida* lit. make crash ‘go bankrupt’).

⁹ The reader will notice that (24) is the first example in which the BN appears with a modifier. Spanish and Catalan modification of BNs reminds us of the effect of relational adjectives (see e.g. McNally & Boleda 2004 for a description of this class) and prepositional phrase complements that serve to further specify the kind of object the nominal describes, although there is no exact coincidence between the two. Examples such as Spanish (i), with a relative clause that describes a specific individual, are unacceptable. In contrast, examples like Catalan (ii) are well-formed because the BN combines with expressions that create descriptions of kinds of skirts.

- (i) *El Señor Ríos posee / tiene dato que necesito.
 the Mr. Ríos possesses has datum that need.1SG
- (ii) Per a aquest espectacle necessitareu faldilla {llarga / escocesa / de quadres}.
 for to this event need-FUT skirt long Scottish plaid
 ‘For this event you will need a long skirt/ a kilt / a plaid skirt.’

Space limitations preclude extending our analysis from BNs to NPs here, and we will not discuss them further. See Espinal (in press) for details.

Rather, the class also includes a few intensional transitive verbs that entail a relation that could be expressed via a verb of having in the relevant possible world, such as *necesitar* / *necessitar* ‘need’, *buscar* / *buscar* ‘look for’, as well as a small set of extensional verbs that entail a possessive or locative relation, essentially limited to *ponerse* / *posar-se* ‘put on (e.g. clothing)’, *llevar* / *portar* ‘carry’, *usar* / *fer servir* ‘use’, *comprar* / *comprar* ‘buy’, *encontrar* / *trobar* ‘find’, *obtener* / *obtenir* ‘obtain’, *recibir* / *rebre* ‘receive’. (25) and (26) offer additional examples from Spanish and Catalan, respectively.

(25)(a) Encontramos taxi.
found.1PL taxi
‘We found a taxi.’

(b) Ha obtenido permiso de trabajo.
has obtained permit of work
‘(S)he has obtained a work permit.’

(26)(a) M’ acabo de comprar cotxe.
REFL finish.1SG of buy car.
‘I just bought myself a car.’

(b) Ahir finalment vaig rebre carta.
yesterday finally PAST.1SG receive letter
‘Yesterday I finally received a letter.’

The class also includes the existential predicate *haber* / *haver-hi* ‘there be’, which, while perhaps not an obvious candidate for a ‘have’-predicate, is composed literally of the verb *haber* / *haver* ‘have’ plus, in the case of Catalan, a locative clitic. We will show how this verb fits naturally into the class of ‘have’-predicates in Section 5.¹⁰ On the other hand, a few predicates which might be expected to fall into this category, notably *voler* ‘want’ and *desitjar* ‘desire’, are severely restricted in their ability to combine with BNs (see Espinal & McNally 2009). Although this fact requires further investigation, on our analysis the verb must undergo a lexical rule in order to be able to occur in the syntactic structure which licenses BNs and to combine with them semantically (see Sections 3 and 4 below), and thus it is not surprising that there might be some arbitrariness in the specific verbs involved.

Finally, note that although this class of verbs is similar to the class that combines with BNs in Norwegian (Borthen 2003), it contrasts sharply with the verbs that take BNs in Hindi. Dayal (2003) observes that BNs in Hindi are licensed when the resulting predicate describes an institutionalized activity; that is, the BN has to describe an object which is typically a participant in the event described by the verb. This is not the case in Spanish or Catalan. Thus, in spite of the fact that reading books or selling newspapers might be considered institutionalized activities, both (27a) and (27b) are ill-formed in Spanish, even though their equivalents are acceptable in Hindi.

¹⁰ See Guéron (1986, 1998) for an analysis that unifies *there* existential sentences in English and inalienable possession in French. See also Baron et al. (2001) and Coene & D’hulst (2003) for work on the expression of possession in natural languages, and Freeze (1992) for a theory that unites locative, existential and ‘have’ predication.

(27)(a) #Juan leía libro.
 Juan read book

(b) #María vende diario.
 Maria sells newspaper

Also note that the distribution of BNs does not correlate with unaccusativity; BNs are excluded with most unaccusative verbs, as the Catalan examples in (28) show.

(28)(a) *Vam aconseguir que arribés metge.
 PAST manage that arrive doctor

(b) *Passa tren.
 pass train

(c) *Creix flor.
 grows flower

There are two reasons for this restriction. First and most obviously, unaccusative verbs do not qualify as ‘have’-predicates (the only *prima facie* exception being the existential predicate, on which see Section 5). Second most unaccusatives have only one argument, and BNs are never licensed as subjects, not even of the passives of predicates that normally permit them – see Catalan (29a-b).¹¹ They are also excluded as subjects of middles – see (29c).

(29)(a) *Pis ha estat comprat . - *periphrastic passive*
 apartment has been bought

(b) *Pis s’ ha comprat. - *pronominal passive*
 apartment CL has bought

(c) *Pis es compra fàcilment. - *middle*
 apartment CL buy-3SG easily

In this respect, Spanish and Catalan BNs contrast with those in Norwegian, which can be subjects of passivized ‘have’-predicates (Borthen 2003).

In addition to these restrictions on the verbs that combine with BNs, there is a constraint on the interpretation of the resulting predicate: the BN is licensed only if, in the specific context of use, the verb phrase denotes a CHARACTERIZING PROPERTY of the external argument.¹² As mentioned above (see (27)), this property is not necessarily a

¹¹ The only apparent exception we have found so far is the Catalan example in (i), but the fact that this sentence would also be acceptable if the BN were modified by a mass quantifier such as *una mica de* ‘a bit of’ suggests that in this example *senyal* ‘signal’ is in fact interpreted as a mass expression.

(i) Vam aconseguir que arribés senyal a l’ altaveu (Brucart 2002: 1455)
 PAST manage that arrive signal at the loudspeaker

‘We managed to get a (or some amount of) signal to reach the loudspeaker.’

¹² See Bosque (1996: 43–5) for a first approximation of this idea.

prototypical, stereotypical or institutionalized property: an examination of the general cultural context is not sufficient to determine which exact combinations of V + N are acceptable, as would be expected if the property had to be stereotypical or institutionalized. It also need not be a temporally stable property of the individual in question, as shown by examples such as those in (25) and (26). Rather, what we mean for a property to be characterizing is that it is relevant in the context to distinguish between whether or not an individual has the property in question. This entails that, while there are lexical restrictions on the verbs that allow BNs in object position in Romance, there is no such restriction on the set of nouns, the latter being subject only to these contextual restrictions. This is best shown by example. For instance, uttered out of the blue, the Catalan sentences in (30) sound odd.

(30)(a) (#)En Joan té joguina.¹³

DET Joan has toy
'John has a toy.'

(b) (#)Aquest ordinador té virus.

this computer has virus
'This computer has a virus.'

If a hearer judges a sentence like (30a) as odd, this is due to the fact that, while it might be informative to hear that John has a toy, whether or not he has one does not strike the hearer as particularly relevant for any other purpose in the context. However, we can easily construct a context in which the sentence is felicitous. Imagine that a nursery school teacher is organizing an activity for which each child in the group must have a toy. Just as the activity is about to start, the teacher checks to see which children have toys and which do not. In such a situation, (30a) could be uttered as a confirmation that the child in question is ready to participate in the activity. Similarly, (30b) could be uttered by someone who is telling a system administrator which computers in a computer room need attention and which do not.

Of course, some properties that verb phrases with BNs describe are easy enough to imagine as relevant in this way, or are frequently enough treated in this way, so that they do not need any particular context at all to be felicitous or we can readily construct a context in which they would be. We would maintain that this is the case for all of the acceptable examples that have been used above.

With the Catalan existential predicate *haver-hi* 'there be', the contrast in (31) also shows that BNs are more or less acceptable depending on how easy it is to imagine the property in question as potentially characterizing what we will call a SITUATIONAL ARGUMENT (represented by the clitic *hi* 'there', which is frequently bound to a left-dislocated locative or temporal phrase, as well).

(31)(a) #Al carrer hi ha cotxe.
at-the street there has car

¹³ We thank M. Victoria Escandell-Vidal for pointing out the relevance of this example to us.

- (b) A aquest hotel hi ha piscina.
 At this hotel there has pool
 ‘There is a swimming pool in this hotel.’

That is, we attribute the contrast that speakers find between the sentences (31) to the fact that one can readily imagine situations in which it might be significant that a hotel has a swimming pool or not, whereas streets are arguably less likely to be characterized according to whether they have cars on them at some particular moment or not. The requirement that the verb phrase be characterizing plays an important role in explaining the fact that not all types of nouns sound equally felicitous as BN complements with all types of ‘have’-predicates, and it points to an important contrast between BNs and both singular indefinite and BP complements.

The phrase ‘characterizing property’ might lead one to think that V + N combinations have something in common with so-called individual level predicates (Carlson 1977). However, this is not the case, as we can easily find examples of predicates which clearly do not possess two of the three properties that Jäger (2001) argues contribute to making a predicate behave as individual-level. First, unlike prototypical individual-level predicates, V + N combinations can denote transitory properties – indeed, they need not even be stative, as shown by the acceptability of the construction in the progressive, which resists stative predicates (see (32), from Spanish):

- (32) Pedro está buscando apartamento.
 Pedro is looking-for apartment
 ‘Pedro is looking for an apartment.’

Second, again unlike individual-level predicates, V + N combinations can appear as complements to perceptions verbs:¹⁴

- (33) Hemos visto a Pedro usar bastón.
 have.1PL seen ACC Pedro use cane
 We have seen Pedro use a cane.

Additional evidence for the characterizing nature of the resulting verb phrase is seen in the kinds of modification it does or does not allow. When the modifier clearly indicates that the property is not intended to characterize the individual, even for a short time (as implied with *a les tres* ‘at 3 o’clock’ in Catalan (34a)), the sentence is unacceptable. Conversely, the appearance of a DP structure together with a modifier such as *a les tres* induces a strong preference for a non-characterizing reading (see e.g. Bleam 2006).

- (34)(a) En Joan ha portat motxilla tot el dia / *a les tres.
 DET Joan has carried backpack all the day / at 3 o’clock
 ‘John has carried a backpack all day.’

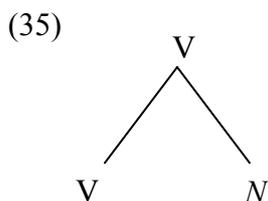
¹⁴ The third property Jäger takes as defining individual-level predicates is the inability to license a weak nominal subject. This test is very difficult to apply in Catalan and Spanish because of the well-attested restrictions on bare plural subjects with transitive verbs, bare plurals being the clearest candidates for unequivocally weak nominals.

- (b) En Joan ha portat *una motxilla tot el dia / a les tres*.
 DET Joan has carried a backpack whole the day / at 3 o'clock
 'John (has) carried a backpack all day/at 3 o'clock.'

To summarize this part of the discussion, we have shown that the set of verbal predicates that allow BNs in object position is lexically restricted to a class that we call the 'have'-predicates. In contrast, there is no lexical restriction on the nominals that can combine with these verbs, as long as the resulting verb phrase denotes a characterizing property, in the sense we have introduced here, of the subject or a situational argument. Thus, the V + N construction is a kind of hybrid: it has a lexical dimension which places certain limits on the verbs that can participate in it, but it also has a productive dimension insofar as what can count as a characterizing predicate given the restriction on the verb is quite open. Thus, a lexical analysis of 'have'-predicates must be combined with a general compositional rule that combines the verb and BN. But before we propose the semantics for this construction, we first turn to its syntax.

3. THE SYNTAX OF VERB PHRASES WITH OBJECT BNS

We adopt a syntactic approach to argument structure (see Hale & Keyser 1993, 2002; Mateu 2002) and its extension from lexical-syntax to sentential-syntax (Espinal & Mateu, in press). Of the different structures posited within this framework, our data indicate that object BNs can only appear in the one in (35).



The structure in (35) is a minimal syntactic configuration in which the verb only takes the BN complement; it is directly analogous to the syntactic argument structure proposed for two different classes of verbal expressions in Hale and Keyser's theory: on the one hand, the class of denominal verbs like *laugh*, *cough*, *cry*, etc., which are assigned a structure containing an abstract light verb and a nominal complement homophonous with the verb (the nominal subsequently conflating with the verb); and, on the other, the class of analytic verbal expressions such as *do work*, *make trouble*, etc. In spite of the fact that for Hale & Keyser these object nominals are arguments, note that they do not contribute a participant, as that notion is normally understood, in the situation the verb describes. This, we propose below, is also the case for Catalan and Spanish BNs.¹⁵ In other words, this is a natural sort of structure to capture the intuition that the V + N sequence is a complex predicate characterizing the VP-external subject.

¹⁵ In spite of these similarities, there are also differences between V + N sequences and denominal verbs as analyzed in these theories. First, since the verbs we are discussing are not abstract, the nominal complement will not conflate with them, but rather simply remain *in situ*. Second, BNs may bear certain kinds of modification (e.g., Spanish *Lleva sombrero de copa* '(S)he wears a top hat', *Esta tarde hay reuni3n de departamento* 'There is a departmental meeting this afternoon'); that is, as shown in (24) and mentioned in Footnote 8, an NP can substitute for N. Finally the nominal complement is not necessarily contiguous to V (Dobrovie-Sorin et al. 2006), but rather can be separated from it by an adverb, as is

In Hale and Keyser's theory, verbs that appear in the configuration in (35) do not project specifiers; rather, the specifier is introduced by a functional projection. This structure is thus coherent with a semantic analysis such as that in Kratzer (1996), on which the external argument is not represented in the verb's lexical semantics but rather is introduced independently. We will adopt such a semantics in Section 4.¹⁶

On Mateu's (2002) semantic construal of Hale & Keyser's theory, each kind of basic syntactic configuration is projected by associating specific semantic properties with abstract relational heads, ultimately corresponding to HAVE, DO, and CAUSE functions, among others. We adopt the condition on the structure in (35), for verbs that accept BNs in object position, that the V must be associated with a HAVE function, in consonance with the lexical semantic restriction we propose below for verbs taking object BNs. This requirement excludes from V + N sequences verbs that require an argument structure with an ACT/DO function (e.g., Catalan **fer polca* lit. do polka, **ballar polca* lit. dance polka; Espinal & Mateu, in press). Similarly, verbs of transfer that are subsumed by a HAVE function (e.g., Catalan *comprar* 'buy') allow BNs, whereas those that are arguably subsumed by a CAUSE function (e.g., Catalan *vendre* 'sell') do not. This restriction will also block many verbs (e.g. *comer/menjar* 'eat', *beber/beure* 'drink') from taking BN complements, even though their equivalents in other languages appear in similar incorporation or pseudo-incorporation constructions.

If BNs are required to appear in a structure like (35), the failure of BNs to appear in subject position and to license secondary predicates (recall (20a)-(22a)) follows directly. We assume that secondary predicates are attributed via a prepositional element or small clause-like projection, with the subject of the predication occurring in specifier position (Hoekstra 1994, den Dikken 1995, and Mateu 2002), just as the subjects of main predicates are projected in a specifier position. We further assume that in order to appear in either sort of subject position a nominal must include appropriate functional information encoded in a Number or Determiner projection.¹⁷ Since there is no morphological evidence that BNs project Number or D, and since there is no evidence that they meet the semantic conditions for serving as arguments, they will not be able to appear in this kind of structure.

Interestingly, our account of the failure of BNs to take secondary predicates helps to explain why we reject the possibility of extending analyses of possession relations such as those in den Dikken (1995, 1997) or Hoekstra (1994) to V + N sequences, even though such analyses might seem initially plausible given the restriction on object BNs to 'have'-predicates. On these analyses, alienable possessor-possessee relations are represented in terms of a predicator role assigned to a

generally possible with direct objects in Catalan and Spanish (in contrast to e.g. English) – see Spanish (i):

- (i) Lleva siempre sombrero de copa.
wears always hat of top
'S/he always wears a top hat.'

The acceptability of (i) indicates that the nominal does not syntactically incorporate into V (Baker 1988).

¹⁶ See Hale & Keyser (1993, 2002), for arguments for keeping the external argument out of the lexical syntactic representation; see also Kratzer (1996) and Pylkkänen (2002) for the relevant functional category introducing this external argument.

¹⁷ In the case of external subjects of main predicates, the presence of Number is not enough, as shown by the complex restrictions on the distribution of BP subjects. However, we will not discuss these additional restrictions here.

prepositional element, namely the locative or genitive marker; the possessor – like the secondary predicate or a locative nominal – occurs as a complement to the P, and the possessee – like the subject – in specifier position of the small clause-like PP. For example, the French existential and possessive sentences in (36) (from Guéron 1986) would be assigned the structure in (37).

(36)(a) Il y a un problème.
 it there has a problem
 ‘There is a problem.’

(b) Marie a deux frères.
 Marie has two brothers.
 ‘Marie has two brothers.’

(37) [V V [PP [DP {un problème, deux frères}][P' {à, de} [DP/NP {y, Marie}]]]]

However, (37) is not a viable alternative to what we propose in (35), because the external argument of the PP in this structure must be a DP; BNs lack the relevant structure, just exactly in the same way as they lack the relevant structure to serve as the subjects of secondary predicates.

On an alternative syntactic analysis, the possession relation is a predication relation between two nominal expressions. This analysis, presented in Guéron (1986) (see also Kayne 1975) and reproduced in (38), postulates a predication relation between the possessor NP₁ (*y* and *Marie*) and the possessee NP₂ (*un problème* and *deux frères*), with the latter functioning as a predicate nominal and the former as the subject of the predication. NP₀ is on this view a sort of small clause that denotes a state with a locative aspect.¹⁸

(38) [V avoir [NP₀ [NP₁ {y, Marie}][NP₂ {un problème, deux frères}]]]

However, the structure in (38) is also inadequate for the Romance data we discuss because object BNs do not themselves function as predicates of any other nominal in the sentences in which they appear. Similarly, it is hard to understand in what sense *un problème* or *deux frères* could be directly predicated of *y* or *Marie*, respectively, in (38).

More generally, we find it difficult to justify either (37) or (38) for verbs like Catalan *portar* ‘carry’, *posar-se* ‘put on, wear’, or *buscar* ‘look for’ on semantic grounds. Such verbs do not denote properties of propositions, as the syntactic structures in (37) and (38) would suggest, nor can these verbs be understood as truly “light” (as are the classic candidates for unaccusative predicates with small clause complements).¹⁹

We conclude that BNs must merge not in a structure of the sort that has been proposed in the literature for the analysis of possessor – possessee relations, but rather in the minimal structure shown in (35). In this structure the syntactic configuration

¹⁸ This structure will be revisited in Section 5 in reference to Kayne’s (1993) proposal that HAVE is BE plus an incorporated constituent. What Guéron’s and Kayne’s approaches have in common is that the locative element *y*, as well as the possessor *Marie* are assumed to occupy a structural subject position, whereas the possessee occupies the position of a structural predicate.

¹⁹ See Bosque (2001) for the proposal that different light verbs can have different ‘weights’.

projected by the verb and its complement does not include a specifier, and the head V is semantically constrained to the HAVE category.

We now turn to the semantic analysis of the V + N combination.

4. THE SEMANTICS OF VERB PHRASES WITH OBJECT BNS

4.1. *The starting point: Dayal's (2003) semantics for pseudo-incorporation*

What will become clear in this section is that – in the monadic structure in (35) – a nominal expression can appear in object position despite the fact that it does not semantically saturate the verbal predicate. This is the approach we will take: to treat Spanish and Catalan BNs semantically as true verb modifiers, and the participant they provide information about as an implicit semantic argument.

Perhaps the earliest attempt to formalize a semantics for object nominals as verb modifiers appears in de Hoop (1992). De Hoop assigns what she terms weak object nominals to type $\langle\langle e,t \rangle, \langle e,t \rangle\rangle$; the nominal then takes the verb it combines with as its argument. However, we want to avoid such an abstract semantic type for BNs, treating them instead as denoting (first-order, type $\langle e,t \rangle$) properties without any specification for number or (thus) the semantic and pragmatics effects number might bring along with it (see Farkas & de Swart 2003 for relevant discussion in relation to the contrasts between BNs and BPs). Very briefly, our reasons for assigning BNs such a denotation are the following.

First, a property-type denotation is the null hypothesis given the usual treatment of common nouns in formal semantics and the fact that Spanish and Catalan have standard determiner systems in which the determiner combines with a property-type nominal to form either an entity- or quantifier-denoting expression. Second, it is in line with specific proposals in recent work on bare nominals (see e.g. Farkas & de Swart 2003 for Hungarian; Dayal 2003 for Hindi; Borthen 2003 for Norwegian; and Dobrovie-Sorin et al. 2006 for Romance). Third, there are various arguments against assigning an entity- or quantifier-type denotation to the BNs. For example, such denotations fail to account for the obligatory narrow scope of BNs (see (8a)); other examples of entity and quantifier-denoting expressions in Spanish and Catalan – notably, singular indefinite nominals – can in principle take wide scope, as observed above. In addition, an entity- or quantifier-type denotation fails to explain the very limited distribution of BNs: if BNs denoted entities or quantifiers, we would expect to find them in all kinds of positions, contrary to fact. Finally, a property denotation, but no other type of denotation, accounts directly for the discourse anaphoric behaviour of BNs which, as shown in (17), only license anaphora to the pronoun *en*.

Our goal, therefore, is a semantic analysis of BNs on which they denote properties and function as verb modifiers. Such an analysis is Dayal's (2003) semantics for pseudo-incorporation in Hindi, which, as mentioned above, addresses a similar combination of verb with object BN to the one under discussion here. Dayal's proposal suppresses the theme in the 'deep' lexical semantics of the verb and treats the direct object as forming a kind of complex predicate with the verb. However, the technical means by which this is achieved does not involve reducing the superficial valency of the verb. Rather, pseudo-incorporating verbs are lexically specified to select for two expressions: one that denotes a property, and one that denotes an entity, as in (39). (In this latter respect Dayal's analysis resembles Semantic Incorporation; see Section 4.4).

In addition, these verbs introduce the condition that the event they describe is APPROPRIATELY CLASSIFICATORY, as defined in (40) (see Zimmer 1972, Downing 1977, Dowty 1979).

(39) $\lambda P_{\langle e,t \rangle} \lambda x \lambda e [P-V(e) \wedge \mathbf{Ag}(e) = x \wedge \mathbf{appropriately-classificatory}(e)]$

(40) An event denoted by a predicate δ that incorporates a property γ is APPROPRIATELY CLASSIFICATORY iff

$\diamond_{\text{probable}}(\exists e[\delta(e) \wedge \exists y[\mathbf{Ag}(e)=y] \wedge \exists x[\gamma(x) \wedge \mathbf{Th}(e)=x]])$ (*extensional verbs*)

$\diamond_{\text{probable}}(\exists e[\delta(e) \wedge \exists y[\mathbf{Ag}(e)=y] \wedge \mathbf{Th}(e)=\gamma])$ (*intensional verbs*)

Intuitively, (40) says that an event of type δ is appropriately classificatory if and only if its theme is typically an individual of type γ . As we observed earlier, however, this notion, though apt for Hindi, neither explains the unacceptability of examples such as those in (27), nor does it explain the acceptability of sentences like (41): it cannot be plausibly argued that a (drinking) glass is an object that one is highly likely to have in the way that a book is something that one is highly likely to read.

(41) No tinc got.
not have glass
'I don't have a glass.'

Rather, we would maintain that (41) is perfectly natural because in a situation like the preparations for a meal, for instance, it is relevant to know whether an individual has a complete place setting or not, so that any missing items can be supplied.

Let us now consider the way in which the BN combines with the verb on this analysis. The event argument plays a key role, as it constitutes a locus for property ascription, crucially allowing the BN to contribute descriptive content without forcing the presence of an individual variable associated with it. Suppressing the theme is what blocks discourse anaphora to the incorporated nominal: if there is no existentially bound variable corresponding to the theme argument in the logical representation, Dayal's reasoning goes, there will be no variable for a subsequent pronoun to be coindexed with. Note that, in contrast, nothing need block the possibility of anaphora with a property denoting pronoun – the pronoun simply needs to be able to refer back to the property itself, which is explicitly represented.

In addition to accounting for the anaphora facts, Dayal's proposal stands out in its attempt to capture the intuition that the BN, despite functioning syntactically as an object, is semantically a modifier. What remains unclear is how exactly $P-V$ in (38) is to be understood: the relationship between the verbal predicate V and the bare singular predicate P is left to intuition. Dobrovie-Sorin et al. (2006) attempt to make this more explicit with the representation in (42).

(42) $\lambda P \lambda x \lambda e [V(e) \wedge \mathbf{Ag}(e)=x \wedge \mathbf{Th}(e) \text{ has } P \wedge \mathbf{appropriately-classificatory}(e)]$

Specifically, (42) encodes the fact that the property denoted by the BN is attributed to the understood theme of the verb, which is not represented directly in the combinatorial semantics but is nonetheless manifest in the lexical semantics of the verb as **Th(e)**.²⁰

On the other hand, both the proposal in (39) and that in (42) have the inelegant characteristic of purportedly suppressing the verb's internal argument while maintaining a bivalent combinatorial semantics for the verb. There could be two reasons for doing this: 1) maintaining a bivalent verb is one way to guarantee that the verb will actually combine with two nominals (as it must); and 2) it keeps semantic composition maximally simple, as it allows composition to proceed via function application. But, if we can guarantee in the syntax that the verb will have the complement it needs, and if we account for the suppression of the internal syntactic argument by means of a lexical rule while keeping the idea that some nominals are modifiers of the verbs they occur with by a compositional rule, we will avoid the inelegance just mentioned.

4.2. *The lexical rule for 'have'-predicates*

We begin by developing the lexical rule we need. As mentioned in Section 2.2, a promising starting point for a lexical analysis of the verbs we are considering is found in Borthen (2003). Borthen proposes that BNs in Norwegian are licensed (*inter alia*) as the possessed argument of a predicate that introduces an asymmetrical *have*-relation, either explicitly or implicitly. However, though Borthen's characterization is closer to what is needed for Spanish and Catalan, there are two facts it does not directly account for. First, it does not have anything to say about the fact that the resulting verb phrase must denote a characterizing property of an external argument, because this condition simply does not hold in Norwegian. Second, Borthen's analysis does not block BNs from subject position of passivized 'have'-predicates or from subject position of secondary predicates. Although we have already provided a syntactic account that blocks Spanish and Catalan BNs from these positions, our analysis would benefit from semantic motivation for that account, as well as an explanation for the difference between Spanish and Catalan, on the one hand, and Norwegian, which allows BN subjects, on the other. We will return to these differences at the end of Section 4.4, once our entire semantic analysis is in place.

Our proposal consists of a lexical rule which applies only to those predicates we mentioned in Section 2.2, and which suppresses the theme argument of the predicate and adds a condition on use to take into account its potentially characterizing nature.²¹ We define this rule in a generalized fashion in (43), although we could also simply directly posit alternative lexical entries fitting the general pattern of the output in (43) for the individual verbs that take BN complements.

²⁰ Note, however, that Dobrovie-Sorin et al. (2006) fail to address the inadequacy for the Romance data of the condition on being appropriately classificatory.

²¹ This rule can be viewed as one of the family of argument-suppressing rules that have been proposed to account for phenomena such as passivization, reflexivization, anticausatives, middles, etc.

(43) **Input:** $\lambda y \lambda e [\mathbf{V}(e) \wedge \theta(e) = y \wedge \exists w [C(w)] [\exists e' [\mathbf{depend}(e, e', w) \wedge \mathbf{have}(e') \wedge \mathbf{havee}(e') = y]]]$

Output: $\lambda e [\mathbf{V}(e) \wedge \exists w [C(w)] [\exists e' [\mathbf{depend}(e, e', w) \wedge \mathbf{have}(e') \wedge \mathbf{havee}(e') = \theta(e)]]]$

Condition on use of output: The issue of whether the referent introduced by the external argument participates or does not participate in e must be crucial for characterizing that referent in some way that is immediately relevant in the context.

The input to this rule specifies that whatever situation it denotes must be one which depends in some way on the existence of a *have*-relation involving the eventual subject referent and some other individual in some (not necessarily actual) world w (which might be subject to contextual restrictions as represented by the variable C). We represent this condition with the predicate $\mathbf{depend}(e, e', w)$ and the accompanying requirement that the subjacent event e' be a *have*-relation ($\mathbf{have}(e')$), with y as the **havee**. Our representation follows Parsons (1990) insofar as it treats the verb as a predicate of events and separates out reference to the verb's participants, and follows Kratzer (1996) in positing that the external argument is introduced via a functional projection; we also follow Dobrovie-Sorin et al. (2006) in treating thematic roles as functions from events to the individuals bearing those roles. The lexical rule in (43) can apply to Spanish and Catalan *tener / tenir* 'have', which depends on what we might call a prototypical *have*-relation holding in the very same world of evaluation, but it can also apply to *necesitar / necessitar* 'need', which requires the *have*-relation to hold only in those (not necessarily actual) worlds in which the subject's needs are met, and to the other 'have'-predicates described in Section 2.²²

Now consider the output of this rule. As mentioned above, the object argument disappears, which, as in the case of Dayal's analysis, accounts for the anaphora facts described above. This, however, leaves us for the moment with the problem of how to combine the BN with the verb. The key to solving this problem, as we will show in the next section, is the fact that we crucially do *not* assume the disappearance of the entailment that the verb describes a situation involving two participants. We refer to the participant corresponding to the suppressed internal argument as $\theta(e)$ and treat it as part of the lexical semantics of the verb, subject to description by a modifier, rather than associating it with a interpretively active variable that corresponds to a Theme argument. Note, furthermore, that any entailment of existence in the actual world for this implicit participant will depend on the lexical semantics of the particular verb involved: if the *have*-relation that the situation described by the resulting predicate depends on is one that must hold in the actual world, its satisfaction conditions will guarantee that the **havee** exists in the actual world; if not, it won't.

²² The input to the rule in (43), as stated, is extensional insofar as it entails the existence of an individual y who participates in the relation the verb describes and allows an entity-type anaphora in discourse. This is too strong for opaque verbs such as *need*, but there are various solutions to this depending on one's approach to opacity that can guarantee the necessary modal embedding of the participant that bears the θ role. What is crucial is that (i) predicates such as *need* include as part of their semantics a dependency relationship between events with regard to a world of evaluation, and that (ii) the output of the rule will be the same both for opaque and transparent verbs, modulo any differences in existence entailments that are carried over from the input semantics.

Finally, the output of the lexical rule introduces a condition on the felicitous use of the V + N sequence in order to capture the requirement that the predicate be potentially characterizing, as described in Section 2.2.

The condition on use in (43) replaces Dayal’s notion of ‘appropriately classificatory’; however, unlike Dayal, we do not include the condition as a regular entailment. If it were a simple entailment, it would be possible to assert a sentence like (41) on the grounds that having or not having a glass is irrelevant for characterizing the speaker in the context. But this is not the case: (41) can only be false if the speaker lacks a glass, and even if it is false, the condition remains that having (or not having) a glass could serve to characterize the speaker in the context.

4.3. *A compositional semantics for V + N combinations*

With the output of the lexical rule in hand, we can now return to the question of how to combine the verb with a BN. We want to preserve from Dayal’s (2003) and Dobrovie-Sorin et al.’s (2006) the treatment of the BN as a verb modifier rather than a contributor of information about an explicit argument; we also want to maintain the maximally simple hypothesis that the BN denotes a first order property. However, we want to avoid having the verb semantically select for the BN. In order to do this, we propose that the verb and the BN combine not via function application, but rather via the intersective composition rule in (44).

- (44) If $[[V]] = \lambda e[V(e)]$ and θ is an implicit role function defined for V,
and if $[[N]] = N$, a property,
then $[[[_V V N]]] = \lambda e[V(e) \wedge N(\theta(e))]$.

(44) applies to verbs which are missing only an external argument (setting aside the event argument) but for which a participant role beyond that ultimately contributed by the external argument is entailed as part of the lexical semantics of the verb. A nominal in the complement position of such a verb will, under this rule, act as a modifier, placing a restriction on the object that satisfies the unexpressed participant role of the event. Note, crucially, that the requirement of having a role function defined will correctly prevent the rule in (44) from applying to other $[_V V N]$ structures where it would not be desirable, such as in analytic verbal expressions (e.g. *do work*), because the verb *do* and other light verbs that appear in such expressions do not have such role functions defined for them.

We now show how the output of the lexical rule in (43) fits the requirements for the compositional rule in (44) to apply. The **havee** role in (43) can serve as the relevant role function for the verb; (44) will thus guarantee that the property denoted by the BN describes the value of this role function. Consequently, the output of (44), applied to a Catalan example such as *portar motxilla* lit. carry backpack ‘carry a backpack’, will be as in (45).

- (45) $[[\textit{portar motxilla}]] = \lambda e[\mathbf{portar}(e) \wedge$
 $\exists w[C(w)] [\exists e'[\mathbf{depend}(e, e', w) \wedge \mathbf{have}(e') \wedge \mathbf{havee}(e') = \theta(e)]]] \wedge$
 $\mathbf{motxilla}(\theta(e'))]$

Although (44) is a construction-specific rule associated with the [vV N] structure, it is not *ad hoc* insofar as it bears a striking similarity to a modification rule which has already been argued for in a different domain, namely SELECTIVE BINDING (Pustejovsky 1995).²³ Selective Binding was proposed to account for the modifying effect of adjectives such as *fast* in phrases such as *fast car*: a fast car is a car that can move quickly or be driven quickly. In this sense, *fast* describes not the car directly but rather an event that a car can participate in. In Pustejovsky's semantics, this event is represented in the noun *car*'s lexical semantics, and Selective Binding accesses it for the application of the adjectival predicate (see Pustejovsky 1995 for details).

Though there are important differences in the formal implementation, what Selective Binding and the rule in (44) share is the fact that the modifier – the adjective in the former case, the BN in the latter – provides information about an aspect of the modified expression's lexical semantics that is not manifest as an argument. In V + N combinations the BN provides information about an implicit participant, and thus describes the situation the verb denotes indirectly insofar as it restricts the identity of that participant. In the case of Selective Binding, the adjective describes an entity indirectly (such as a car) by providing a description of a type of eventuality in which that entity can or does occur.

With this semantic analysis in hand, we can account for the various properties of the construction which were described in Section 2 and for which we have not yet provided an explicit explanation. Some of the facts follow from assigning BNs a property-type denotation, as we pointed out in Section 4.1. As a property-type expression, the BN is a constant and thus is inherently scopeless. It ends up being interpreted as if it had obligatory narrow scope because when it combines with the verb, any existential force that ends up being associated with it is due to the lexical entailments of the verb, which are always inside the scope of any other operators in the sentence; this is of course essentially the same account of obligatory narrow scope as the one given in Carlson (1977) for bare plurals. The fact that the BN denotes a property also accounts for the fact that it freely antecedes only the pronoun *en* in Catalan which, as noted above, itself denotes a property. Moreover, since we have proposed that this property not be specified for number, we account for the fact that the BN is number neutral, unlike BPs or singular indefinites, which are specified for number. Finally, the number neutral, property-type denotation accounts for the failure of the BN to induce telicity (recall (9)). In order for a verb that is underspecified for telicity to get a telic interpretation, it must combine with some expression that is able to turn the verb into the description of a situation with a natural endpoint; and for a predicate to describe a situation *s* with a natural endpoint, it must apply to *s* and, in addition, it must be guaranteed not to apply to arbitrary incremental continuations of *s*.²⁴ A V + N sequence based on such an underspecified verb will never count as telic on this definition because, thanks to the number neutrality of the BN, it will always be able to apply in principle to any arbitrary incremental continuation of any situation it describes.

Other facts discussed in Section 2 follow directly or indirectly from the lexical rule in (43). Its input condition limits the class of the verbs that can take BN complements to 'have'-predicates. No direct restrictions are placed on the BN, though

²³ See also Larson (1998) and McNally & Boleda (2004) for rules which are very similar in spirit.

²⁴ See Marín & McNally (in press) for an argument that telicity in Spanish should be characterized in terms of a natural endpoint rather than in terms of non-homogeneous reference. See Landman (2009) for a formalization of this notion of telicity.

the condition on use of the V + N structure which is added by the lexical rule will ensure that only those BNs that serve in the context to create potentially characterizing properties will be licensed. Finally, in suppressing the internal argument, the rule leaves the verb no option but to combine with the bare nominal via the compositional rule in (44), guaranteeing that the BN will serve as a modifier.

Finally, the elimination of the internal argument, the assignment of a number neutral, property-type denotation to the BN, and the fact that the verb and BN combine via the rule in (44), all together lead to a natural account both of the failure of BNs to license discourse anaphora to token individual-denoting expressions such as personal pronouns, and of the inability of BNs to take non-restrictive relative clauses and to be controllers of implicit arguments. However, as a preliminary to presenting this account it will be useful to briefly compare our semantics to three alternative proposals for combining verbs with property-type nominals, namely Semantic Incorporation (Van Geenhoven 1996), Restrict (Chung & Ladusaw 2004), and Unification of Thematic Arguments (Farkas & de Swart 2003).

4.4. A comparison with other approaches to the semantics of V + N

Though Semantic Incorporation was originally proposed by Van Geenhoven (1996) for noun incorporation in West Greenlandic, the semantics can in principle be extended to other cases where a verb which normally takes an entity-type argument is forced to combine with a property-type expression. On Van Geenhoven's analysis, incorporating verbs are assigned a lexical entry (possibly alongside other lexical entries) according to which the verb formally denotes a relation between an individual and a property. The property is ascribed to the entity that corresponds to the verb's internal argument, which is introduced via existential quantification. Semantic Incorporation, unlike our analysis, thus does not alter the argument structure of the verb in question in any deep way. Rather, its principal effect is to shift the introduction of the existential force and the introduction of the corresponding discourse referent, both of which are typically contributed by the nominal that the verb combines with, to the verb itself. To exemplify, a Semantic Incorporation analysis for a predicate like Catalan *portar motxilla* 'carry backpack' would be as in (46).

$$(46) \quad \lambda P \lambda x \exists y [\mathbf{portar}(x,y) \wedge P(y)](\mathbf{motxilla}) = \lambda x \exists y [\mathbf{portar}(x,y) \wedge \mathbf{motxilla}(y)]$$

In the dynamic version of Semantic Incorporation that Van Geenhoven develops, one effect of introducing an existentially quantified internal argument is to license the introduction of a discourse referent that can support discourse anaphora to token individuals, which is generally possible in West Greenlandic.²⁵ This is the principal problem that such an analysis has for Catalan and Spanish. Since BNs in the latter languages do not license discourse anaphora to token individuals, a Semantic Incorporation analysis would have to be supplemented by a separate account of why discourse anaphora is blocked. We therefore will not adopt such an analysis, though by no means do we exclude the possibility that Semantic Incorporation might be the right analysis for other kinds of data in other languages.

²⁵ See comments in Farkas & de Swart (2003: Chapter 7) on this point.

An analysis in terms of Chung & Ladusaw's (2004) Restrict rule faces a similar problem. Restrict accomplishes via semantic composition rules what Semantic Incorporation accomplishes in the lexicon: it allows a predicate which denotes a relation between individuals to combine with a property-type expression, the property simply adding descriptive content to one of the arguments without saturating that argument. Saturation results either via a separate rule of Existential Closure, or when the verb phrase combines (by function application) with an extra object that denotes either an entity or quantifier. The output of Restrict for *portar motxilla* is presented in (47a); the output following existential closure (EC) appears in (47b) (see Chung & Ladusaw 2004 for further details).

$$(47)(a) \text{ Restrict}(\lambda y \lambda x [\text{portar}(x,y)], \text{motxilla}) = \lambda y \lambda x [\text{portar}(x,y) \wedge \text{motxilla}(y)]$$

$$(b) \text{ EC}(\lambda y \lambda x [\text{portar}(x,y) \wedge \text{motxilla}(y)]) = \lambda x \exists y [\text{portar}(x,y) \wedge \text{motxilla}(y)]$$

Saturation by an extra object is illustrated using Chamorro in (48):

$$(48) \quad \begin{array}{l} \text{Gäi-ga'} \quad \text{un ga'lagu ennao na patgun.} \\ \text{agr.have-pet a dog} \quad \text{that L child} \\ \text{'That child has a pet dog.' (Chung \& Ladusaw 2004: 89, ex. (29a))} \end{array}$$

An initial, if perhaps not insurmountable, obstacle to an analysis of Spanish and Catalan in terms of Restrict is the fact that, as mentioned in Section 1, doubling is not attested in the latter languages:

$$(49)(a) \quad \begin{array}{l} *Tinc \text{ pis} \quad \text{un duplex.} \quad \text{(see (5a))} \\ \text{have apartment a duplex} \end{array}$$

$$(b) \quad \begin{array}{l} *El \text{ va buscar cambrer.} \\ \text{him PAST look-for waiter} \end{array}$$

More seriously, as was the case with Semantic Incorporation, and for essentially the same reasons, a Restrict analysis predicts the possibility of having discourse anaphora to token individuals, which, as noted, must then be blocked for the cases which interest us here. Chung & Ladusaw (2004: 121, 127) suggest that such blocking should be the job of morphosyntax, rather than something that follows from the semantic analysis. However, they do not offer any specific clues as to what such morphosyntactic mechanisms would be. We therefore do not adopt an analysis of BNs in terms of Restrict either, although as with Semantic Incorporation, we do not dispute its viability as a composition rule for other sorts of data.

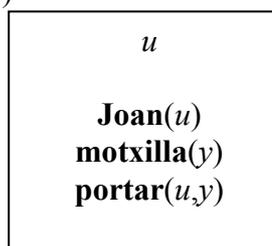
A superficially similar, but ultimately rather different analysis of incorporation appears in Farkas & de Swart (2003). These authors propose an enrichment of Discourse Representation Theory (DRT, Kamp 1984) in which they distinguish between discourse referents – those variables that instantiate the arguments of a predicate – and what they call Thematic Arguments. They then propose two different kinds of semantic composition rules: 1) Instantiation, which allows a variable representing a discourse referent to replace a thematic argument in the discourse representation of a predicate; and 2) Unification of Thematic Arguments, which, under the right syntactic conditions, has the ultimate effect of allowing information contributed by a verbal predicate and a

nominal to become associated with one single thematic argument. Instantiation is used to combine in DPs; Unification is used for BNs and BPs. However, they posit that the number feature on BPs lead to the accommodation of a discourse referent which eventually instantiates a thematic argument.

An illustration of the result of applying these rules in the analysis of the sentence (50) is given in (51), where u is an instantiating discourse referent, and y is a variable representing a thematic argument.

- (50) En Joan porta motxilla.
 DET Joan carries backpack
 ‘John carries a backpack.’

(51)



The Discourse Representation Structure (DRS) in (51) is verified if there is a sequence of entities $\langle e_1, e_2 \rangle$ in the universe of discourse such that the following conditions are met (where f assigns a value to the variable u):

- (52)(a) $\langle e_1, e_2 \rangle \in [[portar]]$
 (b) $f(u) = e_1$
 (c) $f(u) = [[Joan]]$
 (d) $e_2 \in [[motxilla]]$

A crucial aspect of this theory is that it allows for final DRSs in which only Unification, but not Instantiation, has applied to some argument. In this respect the proposal differs from the Restrict analysis. While the latter requires all arguments to end up saturated (whether via existential closure or in combination with an appropriate external object via function application), the Unification analysis does not impose this requirement on thematic arguments. Farkas & de Swart allow Unification to apply without Instantiation in order to account for cases of blocked discourse anaphora: Since discourse anaphora to a nominal is possible only when there is an instantiated discourse referent corresponding to that nominal, any nominal that combines via Unification with no accompanying application of Instantiation via doubling or the accommodation of a discourse referent (in the case of BPs) will fail to license discourse anaphora.

Although the differences at the level of formal detail make it difficult to compare the Unification analysis exactly with the other analyses discussed here, it seems clear that thematic arguments as proposed by Farkas & de Swart are not arguments in the usual sense of the term, or in the sense that the y variables are in the Semantic Incorporation and Restrict representations in (46) and (47), respectively. Rather, thematic arguments are more like the implicit role functions used in Dayal’s and our analyses. In this respect, Unification could in principle be a viable candidate for

analyzing Catalan and Spanish BNs, in substitution for the composition rule in (44). However, in order to be adapted to Spanish and Catalan, Unification would still have to be supplemented by a lexical rule like the one in (43), to restrict the verbs to which it can apply and to introduce the condition that the resulting verb phrase be potentially characterizing, and it would also have to be restricted to apply only to the syntactic configuration identified in (44), under the conditions identified in that rule.

While the empirical differences between using Unification vs. the rule in (44) may turn out not be substantial, developing (44) as an alternative to Unification and to the other analyses discussed here has had the positive effect of leading to more general reflection on two points which have received little attention in the previous literature. First, as mentioned in Section 4.3, the analysis establishes a clear parallel between the modification of verbs by BNs and the modification of nouns by adjectives. Since Unification applies specifically to thematic arguments, and since the sorts of elements within a noun's semantics that are modified by adjectives under rules like Selective Binding do not correspond to thematic arguments, this parallel was not previously visible. We believe it is worth exploring further in an effort to better understand modification as a cross-categorical phenomenon.

Second, Unification is designed to interact with other aspects of syntax and semantics in such a way that not only languages like Hungarian or Spanish and Catalan, but also languages like West Greenlandic and Chamorro can be accounted for (and something similar can arguably be said for Restrict). While this broad coverage is *prima facie* an advantage, it also deemphasizes the relevance of cross-linguistic variation in incorporation and incorporation-like phenomena. But we suspect that this variation could well be a sign of significant variation in the semantics for combinations of verbs with property-type object nominals, and that careful investigation should be devoted to considering this possibility.

The comparison of the different analyses presented in this section can help shed light on the remaining facts to be accounted for: the discourse anaphoric behavior of BNs, on the one hand, and the differences in the licensing of BNs in Spanish and Catalan vs. Norwegian, on the other. A detailed analysis of discourse anaphora would require converting our semantics to a dynamic framework such as DRT; though it is beyond the scope of this paper to do so here, we can sketch how the account would work. In the standard construction rules for DRSs, certain kinds of expressions (e.g. DPs) introduce discourse referents to token individuals; others do not. BNs, as property-denoting expressions, fall into the latter category. That means that if a BN is to be associated with a discourse referent, that referent must be supplied in some other way, for instance via the verb, as on Van Geenhoven's analysis, or via the accommodation licensed by number, as Farkas & de Swart propose for BPs. On our analysis, neither of these alternative means of introducing discourse referents is available. Thus, the BN will not be associated with any discourse referent, and as a result it will not directly license discourse anaphora to token individuals. The failure of the BN to be associated with a discourse referent also accounts for its failure to license modification by a non-restrictive relative clause, assuming that the latter are integrated into the semantics as independent propositions ascribed to the referent introduced by the expression they modify, as in e.g. Potts (2005).

Finally, recall that Norwegian BNs differ from those in Spanish and Catalan in that the former can appear as subjects of passivized 'have'-predicates and secondary predications, while the latter cannot. According to the analysis we advocated in Section

3, the failure of Spanish and Catalan BNs to appear in subject positions was due to their failure to project D or Number; this lack of morphosyntax correlates with their failure to instantiate a discourse referent. The underlying assumption is that the contents of subject positions need to be associated with such a referent. The composition rule in (44) also fails to provide a referent, but we have seen that both Semantic Incorporation and Restrict are able to contribute one. We therefore suggest that Norwegian BNs combine with their verbs not by a rule such as Unification or (44), but rather by Semantic Incorporation or a lexically-governed Restrict. This correctly predicts another contrast between Norwegian BNs and Catalan and Spanish BNs, which is that the former, unlike the latter, freely licenses token discourse anaphora (Borthen 2003).

We now turn to the final issue to be addressed in this paper, namely the extension of the analysis to existential sentences.

5. EXTENDING THE ANALYSIS: EXISTENTIAL SENTENCES

Given the proposal in the previous sections, the acceptability of BNs with existential *haver-hi* (Catalan, lit. ‘have’+oblique clitic) and *haber* (Spanish, lit. ‘have’) might seem surprising. Though morphologically they look like reasonable candidates for ‘have’-predicates, it is less obvious that classifying them as such is justifiable on semantic grounds. Nonetheless, in this section, we show how our analysis can be extended straightforwardly to account for the fact that these existential predicates combine with BNs, and we point out the implications for the debate over how best to analyze the syntax of this predicate. The contrasts illustrated in (53) and (54), from Catalan and Spanish, respectively, show that a BN can occur in object position of an existential ‘have’-predicate only if the BN is anchored by the oblique clitic. Note that the examples in (53a) and (54a) cannot be ungrammatical due to the need for an explicit subject, since (i) both Catalan and Spanish are pro-drop languages, and (ii) in verbal tenses other than the indicative present Spanish existential-*haber* does not require the locative clitic *y*.

(53)(a) *Ha garatge.
has garage

(b) *Hi* ha garatge.
there has garage
‘There is a garage.’

(54)(a) *Ha garaje.
has garage

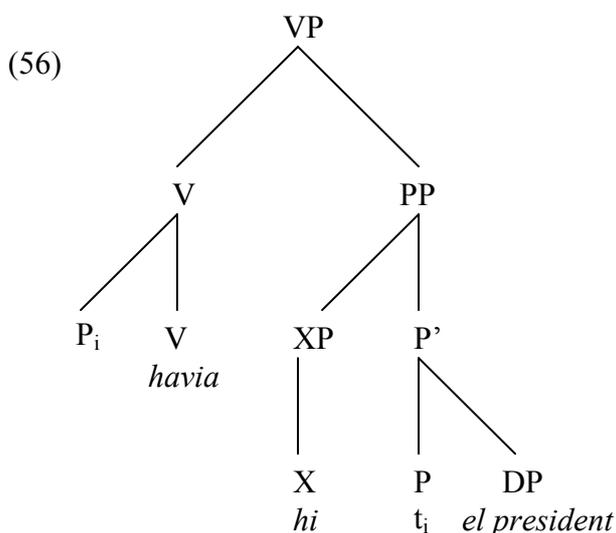
(b) Hay garaje
has-there garage
‘There is a garage.’

Compare (53) and (54) with a different construction where Catalan *haver-hi* ‘there be’ is understood as truly locative and followed by a full-fledged DP. This construction, exemplified in (55a), has also been claimed to be exemplified in English by sentences such as (55b), from Hornstein et al. (2002) (see also Guéron 1986, Freeze 1992, and Kayne 1993).

(55)(a) *Hi havia el president.*
 there had the president
 ‘The president was here/there’

(b) There is a Ford T engine in my Saab.

To account for certain semantic affinities between the verbs *haver-hi* ‘have’ as used here and *ésser* ‘be’, Rigau (1997, 2005) assumes (following Kayne 1993 together with Hale & Keyser’s 1993 syntactic argument structure theory) that the *have / be* alternation can be derived from an unaccusative structure. She argues that the Catalan locative verb *haver-hi* is an instance of the light verb *ésser* to which an abstract preposition of central coincidence has been syntactically incorporated. According to this unaccusative analysis for sentence (55a), the clitic *hi* is assumed to move from the Spec position of an abstract PP to a locative subject position, and the verb *haver* is obtained when the verb *ésser* is spelled-out with an incorporated preposition. See the output structure for the VP in (56) (Rigau 1997: 399, (12)).²⁶



In contrast, Hornstein et al. (2002) (following e.g. Szabolcsi 1981 and Kayne 1993) propose an analysis of the English sentence in (55b) which relies on a small clause structure analysis (see also Section 3 above). More precisely, they defend the hypothesis that two different small clauses can be associated with (55b), which correspond to the two readings given in (57): (57a), the integral whole-part or inalienable interpretation, and (57b), the standard locative interpretation. These two readings are paraphrased in (58).

(57) There is a Ford T engine in my Saab. (Hornstein et al. 2002, exx. (1) and (3))

(a) ...[_{sc} My Saab [a Ford T engine]]....

(b) ...[_{sc} a Ford T engine [in my Saab]]....

(58)(a) My Saab has a Ford T engine. (Hornstein et al. 2002, ex. (2))

²⁶For quirky subjects in Romance languages, see also Masullo (1993), Longa et al. (1998), and Fernández-Soriano (1999).

(b) (Located) in my Saab is a Ford T engine.

If we adopt either of these analyses, it is completely mysterious why BNs would be able to appear in existential sentences. On the analysis in (57a), the subject of the small clause is a DP. On the analysis in (57b), the object of the P is also a DP. As argued in Section 3 in relation to the structures (37) and (38), BNs cannot occupy positions reserved for DPs. We therefore maintain our analysis of BNs presented in the previous sections and now extend it explicitly to the facts in (53b) and (54b).

Specifically, the analysis we propose for the existential construction differs from that in (35) only in that the lexical verb is assumed to have a formal feature [Loc] (cf. Freeze 1992, Guéron 1998). The weak pronoun *hi* ‘there’, which also has a [Loc] formal feature, merges with this argument structure.²⁷ The output of this merge operation is an anaphoric relationship between the clitic and verb that might be syntactically represented as an agreement relationship within a local domain, as in (59).

(59) [_{VP} Hi [_V ha garatge]]
 [Loc] [Loc]

As for the existential proform, on the one hand, note that it shares with other existential proforms found in Romance a lexically locative status (e.g. French *y*, Spanish *–y*, Italian *ci*), but this fact does not make it a deictic expression (see Freeze 1992), since it can cooccur with a true deictic adverbial, whether locative (e.g., *aquí* ‘here’) or temporal (e.g., *avui* ‘today’); see the examples in (60).

(60)(a) *Aquí hi ha piscina.*
 here there has swimming pool
 ‘There is a swimming pool here.’

(b) *Avui hi ha casament.*
 today there has wedding
 ‘Today there is a wedding.’

This suggests that not only is it the case that there is some sort of syntactic agreement between the clitic and the verb in existentials, but also that this chain is further extended to a true indexical expression in order to achieve a deictic interpretation.

On the other hand, several arguments from Freeze (1992: Section 3.3) point to the conclusion that the proform is not a subject, but rather is adjoined to the verb, as is normally assumed for clitics in Romance.²⁸ First, Catalan, like Spanish, is a null-subject language. Thus, if *hi* were the subject it would be omissible, but it is not (see (53a) and (54a)). Second, the existential proform cannot move with raising verbs, contrary to what would be expected if it was a subject. See the contrasts between Catalan (61) and (62).

²⁷ Oblique clitic *hi*, which comes from the Latin demonstrative *hic* and the Latin adverb *ibi*, is supposed to exhibit a double nature as a determiner and as a preposition (cf. Longa et al. 1998, Rigau 1997). This adverbial weak pronoun lacks any deictic use (that is, any specific spatio-temporal reference) unless it occurs in non-existential and non-idiomatic expressions (Kayne 2006).

²⁸ In French the existential proform is clearly not the subject, since subject position of existentials contains the dummy *il* (Freeze 1992: 567).

(61)(a) Sembla que l'etimologia ve de...
 seems that the etymology comes of
 'It seems that the etymology comes from...'

(b) ?L'etimologia sembla venir de...
 the etymology seems come of
 'The etymology seems to come from...'

(c) L'etimologia sembla que ve de...
 the etymology seems that comes of
 'The etymology seems to come from...'

(62)(a) Sembla que hi ha piscina.
 seems that there has swimming-pool
 'It seems that there is a swimming-pool.'

(b) */??Hi sembla haver piscina.
 there seems have swimming-pool

(c) *Hi sembla que ha piscina.
 there seems that has swimming-pool

Third, the existential proform can be preceded by the negative sentential marker *no*, a property which suggests that *hi* cannot be in structural subject position, since subjects cannot be preceded by the negative sentential marker; see the contrasts in (63) and (64).

(63)(a) L'etimologia no ve de...
 the etymology not comes of
 'The etymology does not come from...'

(b) *No l'etimologia ve de...
 not the etymology comes of...

(64)(a) A l'hotel no hi ha piscina.
 at the hotel not there has swimming-pool
 'There is no swimming-pool at the hotel.'

(b) *A l'hotel hi no ha piscina.
 at the hotel there not has swimming-pool

Therefore, instead of appealing to a quirky subject analysis, we treat *hi* syntactically as the realization of an external situational argument that bears a locative formal feature and is merged with the verb in the course of the derivation.²⁹ This clitic is bound to a (locative or temporal) deictic expression to which the characterizing property denoted by the VP is finally anchored; see the syntactic structure in (65).

²⁹ In Spanish this merge operation involves overt conflation (in Hale & Keyser's 2002 terms) only in the case of the present tense form *hay* 'there is'.

- (c) Avui hi ha reunió.
 today there has meeting
 ‘There is a meeting today.’

Additional properties of BNs in existential sentences are parallel to those of BNs in ‘have’-predicates. For example, BNs in existentials are number neutral (see (69)), and they license anaphora to a property-type referring pronoun but not to an entity anaphora (see the question-answer pairs in (70)).

- (69) A l’ hotel hi ha piscina. Una al pati (i una al terrat).
 at the hotel there has swimming-pool one to-the patio and one to-the roof
 ‘There is a swimming-pool at the hotel. One on the patio (and one on the roof).’

- (70)(a) Que hi ha pàrquing a l’ hotel? {En / #el} trobareu davant de l’
 that there has parking at the hotel PART / it find-FUT-2PPL front of the
 edifici.
 building
 ‘Is there a parking slot at the hotel? You will find it in front of the building.’

- (b) Que hi ha un pàrquing a l’ hotel? {#En / el} trobareu davant de
 that there has a parking at the hotel PART / it find-FUT-2PPL front of
 l’ edifici.
 the building
 ‘Is there a parking slot at the hotel? You will find it in front of the building.’

Once the existential predicate and BN are associated with the structure in (35) they will be able to undergo the lexical rule in (43), the input and basic output of which are repeated in (71) for convenience.

- (71) **Input:** $\lambda y \lambda e [V(e) \wedge \theta(e)=y \wedge$
 $\exists w [C(w)] [\exists e' [\mathbf{depend}(e, e', w) \wedge \mathbf{have}(e') \wedge \mathbf{havee}(e')=y]]]$

Output: $\lambda e [V(e) \wedge \exists w [C(w)] [\exists e' [\mathbf{depend}(e, e', w) \wedge \mathbf{have}(e') \wedge \mathbf{havee}(e')=\theta(e)]]]$

The input condition in (71) makes reference to the internal argument by means of variable y , but excludes any reference to the external argument. In other words, it will be able to apply not only to predicates that eventually take a normal external argument but also to the existential predicate as well, under the assumption that it denotes a *have*-relation. We have seen in the previous examples that V + N existential sentences characterize what we have called a situational argument which does not correspond to the subject of the existential sentence. Since, in existential sentences, the V + N is syntactically merged with *hi* ‘there’ (which can be further bound to an external deictic expression), *hi* guarantees the availability of a situational anchor to which the resulting characterizing property can be ascribed. There is no other candidate external argument for the existential predicate, as its subject position must be filled by some sort of expletive. The output of the lexical rule guarantees that in V + N existential sentences the object complement is not interpreted as a true argument but is reduced to an implicit

participant of the *have*-relation, which we express as $\theta(e)$. This participant is then modified by the property N by means of the rule in (44).

6. CONCLUSION

We have shown that the possibility of object BNs in Spanish and Catalan is productive and non-idiomatic, but reduced to a class of verbs that encode a *have*-relation, including existential *haber/haver-hi*, and we have described the syntactic and semantic conditions under which object BNs can and cannot occur. We have argued that these object BNs appear only in the complement position of a monadic syntactic structure whose head must be a V with a HAVE semantic construal and that they are interpreted not as semantic arguments, but rather as verb modifiers. The semantics, a reformulation of Dayal's (2003) semantics for pseudo-incorporation, consists of two parts: a lexical rule that eliminates the internal argument of the verbs to which it applies without eliminating any entailments relating to the corresponding participant; and a compositional rule which combines the property denoted by the BN with the verb so as to provide a description of that participant. We have, in addition, extended our analysis of 'have'-predicates to those existential sentences that, in contrast to English, characteristically also allow BNs in object position in Spanish and Catalan.

By means of this analysis we have shown that syntactic selection and semantic selection do not always match perfectly, as a verb can select syntactically for a complement without semantically selecting for it. However, our analysis has the important conceptual advantage of establishing a parallelism with certain rules that have been proposed in the literature on adjectival modification, thus reinforcing the view enshrined in the event semantics tradition that there are deep similarities between modification of within the nominal and verbal domain.

REFERENCES

- Baker, Mark. 1988. *Incorporation: a theory of grammatical function changing*. Chicago: University of Chicago Press.
- Baron, Irene, Michael Herslund & Finn Sørensen. 2001. *Dimensions of possession*. Amsterdam: John Benjamins.
- Beaver, David & Henk Zeevat. 2007. Accommodation. In Ramchand & Reiss (eds.), 503–538.
- Bleam, Tonia. 2006. The role of semantic type in differential object marking. *Belgian Journal of Linguistics* 19, 3–27.
- Borthen, Kaja. 2003. *Norwegian bare singulars*. Ph.D. dissertation, Norwegian University of Science and Technology.
- Bosque, Ignacio. 1996. *El sustantivo sin determinación. La ausencia de determinante en la lengua española*. Madrid: Visor.
- Bosque, Ignacio. 2001. On the weight of light predicates. In Herschensohn, Mallén & Zagona (eds.), 23–38.
- Brucart, Josep M. 2002. Els determinants. In Solà, Lloret, Mascaró & Pérez Saldanya (eds.), 1437–1516.
- Carlson, Gregory. 1977. *Reference to kinds in English*. Ph.D. dissertation, University of Massachusetts, Amherst.

- Chierchia, Gennaro. 1998. Reference to kinds across languages. *Natural Language Semantics* 6, 339–405.
- Chung, Sandra & William A. Ladusaw. 2004. *Restriction and saturation*. Cambridge, MA: MIT Press.
- Cinque, Guglielmo (ed.). 2005. *Comparative syntax*. Oxford: Oxford University Press.
- Cinque, Guglielmo, Jan Koster, Jean-Yves Pollock, Luigi Rizzi & Raffaella Zanuttini (eds.). 1995. *Paths towards Universal Grammar. Studies in honor of Richard Kayne*. Washington, D.C.: Georgetown University Press.
- Coene, Martine & Yves D’hulst (eds.). 2003. *From NP to DP: The expression of possession in noun phrases*. Amsterdam: John Benjamins.
- Dayal, Veneeta. 2003. A semantics for pseudo incorporation. Ms., Rutgers University.
- Déprez, Viviane. 2005. Morphological number, semantic number and bare nouns. *Lingua* 115, 857–883.
- den Dikken, Marcel. 1995. *Particles: On the syntax of verb particle, triadic, and causative constructions*. Oxford: Oxford University Press.
- den Dikken, Marcel. 1997. The syntax of possession and the verb ‘have’. *Lingua* 101, 129–150.
- Dobrovie-Sorin, Carmen, Tonia Bleam & M. Teresa Espinal. 2006. Bare nouns, number and types of incorporation. In Tasmowski & Vogeleer (eds.), 51–79.
- Downing, Pamela. 1977. On the creation and use of English compound nouns. *Language* 53.4, 810–842.
- Dowty, David. 1979. *Word meaning and Montague Grammar*. Dordrecht: Reidel.
- Espinal, M. Teresa. 2009. Clitic incorporation and abstract semantic objects in idiomatic constructions. *Linguistics* 47.6, 1221–1271.
- Espinal, M. Teresa. In press. Bare nominals in Catalan and Spanish. Their structure and meaning. *Lingua*. ; DOI information: 10.1016/j.lingua.2009.06.002.
- Espinal, M. Teresa, Manuel Leonetti & Louise McNally (eds.). 2009. *Proceedings of the IV Nereus International Workshop Definiteness and DP Structure in Romance Languages*. University of Konstanz Fachbereich Sprachwissenschaft Arbeitspapier 124, 27–43.
- Espinal, M. Teresa & Jaume Mateu. In press. On bare nominals and argument structure. *Studies in Linguistics- CISCL Working Papers*. Siena.
- Espinal, M. Teresa & Louise McNally. 2009. Characterizing ‘have’ predicates and indefiniteness. In Espinal, et al. (eds.), 27–43.
- Farkas, Donka & Henriette de Swart. 2003. *The semantics of incorporation: From argument structure to discourse transparency*. Stanford, CA: CSLI Publications.
- Fernández-Soriano, Olga. 1999. Two types of impersonal sentences in Spanish: Locative and dative subjects. *Syntax* 2, 101–140.
- Freeze, Ray. 1992. Existentials and other locatives. *Language* 68, 553–595.
- Groenendijk, Jeroen, Theo Janssen & Martin Stokhof (eds.). 1984. *Truth, interpretation, and information: Selected papers from the Third Amsterdam Colloquium*. Dordrecht: Foris.
- Guéron, Jacqueline. 1986. Le verbe *avoir*. *Recherches linguistiques de Vincennes* 14/15, 155–187.
- Guéron, Jacqueline. 1998. Le verbe *avoir* et la possession. In Guéron & Zribi-Hertz (eds.), 167–174.

- Guéron, Jacqueline & Anne Zribi-Hertz (eds.). 1998. *La grammaire de la possession*. Nanterre: Publidix.
- Hale, Kenneth & Samuel J. Keyser. 1993. On argument structure and the lexical expression of syntactic relations. In Hale & Keyser (eds.), 53–108.
- Hale, Kenneth & Samuel J. Keyser (eds.). 1993. *The view from Building 20: Essays in linguistics in honour of Sylvain Bromberger*. Cambridge, MA: MIT Press.
- Hale, Kenneth & Samuel J. Keyser. 2002. *Prolegomenon to a theory of argument structure*. Cambridge MA: MIT Press.
- Herschensohn, Julia, Enrique Mallén & Karen Zagona (eds.). 2001. *Features and interfaces in Romance*. Amsterdam: John Benjamins.
- Hoekstra, Teun. 1988. Small clause results. *Lingua* 74, 101–139.
- Hoekstra, Teun. 1994. HAVE as BE plus or minus. In Cinque, Koster, Pollock, Rizzi & Zanuttini (eds.), 199–215.
- de Hoop, Helen. 1992. *Case configuration and noun phrase interpretation*. Ph.D. dissertation, Rijksuniversiteit Groningen.
- Hornstein, Norbert, Sara Rosen & Juan Uriagereka. 2002. Integrals. In Uriagereka (ed.), 179–191.
- Jasinskaja, Ekaterina. 2008. Modeling discourse relations by topics and implicatures: The elaboration default. Ms., IMS Stuttgart/Universität Heidelberg.
- Jaeggli, Osvaldo & Kenneth J. Safir (eds.). 1989. *The null subject parameter*. Dordrecht: Kluwer.
- Jäger, Gerhard. 2001. Topic-comment structure and the contrast between individual and stage level predicates. *Journal of Semantics* 18, 83–126.
- Kamp, Hans. 1984. A theory of truth and interpretation. In Groenendijk, Janssen & Stokhof (eds.), 1–42.
- Kayne, Richard S. 1975. *French syntax: The transformational cycle*. Cambridge, MA: MIT Press
- Kayne, Richard S. 1989. Null subjects and clitic climbing. In Jaeggli & Safir (eds.), 239–261.
- Kayne, Richard S. 1991. Romance clitics, verb movement and PRO. *Linguistic Inquiry* 22, 647–686.
- Kayne, Richard S. 1993. Toward a modular theory of auxiliary selection. *Studia Lingüística* 47, 3–31.
- Kayne, Richard S. 2006. Expletives, datives, and the tension between morphology and syntax. Ms., CUNY.
- Kratzer, Angelika. 1996. Severing the external argument from its verb. In Rooryck & Zaring (eds.), 109–137.
- Landman, Fred. 2009. Incremental homogeneity in the semantics of aspectual for-phrases. Paper presented at the Workshop on Bare Nouns: Syntactic Projections and their Interpretation, Paris.
- Larson, Richard K. 1998. Events and modification in nominals. *Proceedings of Semantics and Linguistic Theory (SALT) VIII*, 145–168.
- Lewis, David. 1979. Scorekeeping in a language game. *Journal of Philosophical Logic* 8, 339–359.
- Longa, Víctor M., Guillermo Lorenzo & Gemma Rigau. 1998. Subject clitics and clitic recycling: Locative sentences in some Iberian Romance Languages. *Journal of Linguistics* 34, 125–164.

- Longobardi, Giuseppe. 1994. Reference and proper names. *Linguistic Inquiry* 25, 609–666.
- Longobardi, Giuseppe. 2001. How comparative is semantics? A unified parametric theory of bare nouns and proper names. *Natural Language Semantics* 9, 335–369.
- Longobardi, Giuseppe. 2005. Toward a unified grammar of reference. *Zeitschrift für Sprachwissenschaft* 24, 5–44.
- Marín, Rafael & Louise McNally. In press. Inchoativity, change of state, and telicity: Evidence from Spanish reflexive psychological verbs. *Natural Language and Linguistic Theory*.
- Masullo, Pascual. 1993. Two types of quirky subjects: Spanish versus Icelandic. *The North East Linguistic Society (NELS)* 23, 303–317.
- Mateu, Jaume. 2002. *Argument structure. Relational construal at the syntax-semantics interface*. Ph.D. dissertation, Universitat Autònoma de Barcelona.
- McNally, Louise & Gemma Boleda. 2004. Relational adjectives as properties of kinds. *Empirical Issues in Syntax and Semantics* 5, 179–196.
- Mendikoetxea, Amaya & Miriam Uribe-Etxebarria (eds.). 1997. *Theoretical issues at the morphology-syntax interface*. Bilbao: Universidad del País Vasco.
- Mittwoch, Anita. 1993. The relationship between *schon/already* and *noch/still*: A reply to Löbner. *Natural Language Semantics* 2, 71–82.
- Montague, Richard. 1974. *Formal philosophy* (ed. R.H. Thomason). New Haven, CT: Yale University Press.
- Munn, Alan & Cristina Schmitt. 2005. Number and indefinites. *Lingua* 115, 821–855.
- Parsons, Terence. 1990. *Events in the semantics of English*. Cambridge, MA: MIT Press.
- Pylkkänen, Liina. 2002. *Introducing arguments*. Ph.D. dissertation, MIT.
- Potts, Christopher. 2005. *The logic of conversational implicature*. Oxford: Oxford University Press.
- Pustejovsky, James. 1995. *The generative lexicon*. Cambridge, MA: MIT Press.
- Ramchand, Gillian & Charles Reiss. 2007. *The Oxford handbook of linguistic interfaces*. Oxford: Oxford University Press.
- Rigau, Gemma. 1997. Locative sentences and related constructions in Catalan: *ésser / haver* alternation. In Mendikoetxea & Uribe-Etxebarria (eds.), 395–421.
- Rigau, Gemma. 2005. Number agreement variation in Catalan dialects. In Cinque (ed.), 775–805.
- Rooryck, Johan & Laurie Zaring (eds.). 1996. *Phrase structure and the lexicon*. Dordrecht: Kluwer.
- Schmitt, Cristina & Alan Munn. 1999. Against the Nominal Mapping Parameter: Bare nouns in Brazilian Portuguese. *The North East Linguistic Society (NELS)* 29, 339–353.
- Solà, Joan, M. Rosa Lloret, Joan Mascaró & Manuel Pérez Saldanya (eds.), *Gramàtica del català contemporani, Vol. II: Sintaxi*. Barcelona: Empúries.
- Stvan, Laurel Smith. 2009. Semantic Incorporation as an account for some bare singular count noun uses in English. *Lingua* 119, 314–333.
- Szabolcsi, Anna. 1981. The possessive construction in Hungarian: A configurational category in a non-configurational language. *Acta Linguistica Academiae Scientiarum Hungaricae* 31, 161–189.
- Tasmowski, Liliane & Svetlana Vogeleer (eds.). 2006. *Non-definiteness and plurality*. Amsterdam: John Benjamins.

- Uriagereka, Juan (ed.). 2002. *Derivations: Exploring the dynamics of syntax*. New York: Routledge.
- Van Geenhoven, Veerle. 1996. *Semantic incorporation and indefinite descriptions: Semantic and syntactic aspects of West Greenlandic noun incorporation*. Ph. D. dissertation, Universität Tübingen. Published in Stanford: CSLI Publications, 1998.
- Ward, Gregory, Richard Sproat & Gail McKoon. 1991. A pragmatic analysis of so-called anaphoric islands. *Language* 67, 439-474.
- Zimmer, Karl. 1972. Appropriateness conditions for nominal compounds. *Working Papers on Language Universals*. Stanford University 8, 3–20.