The Derivation of Dative Alternations[*]

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ABSTRACT

This paper argues for an updated version of the classical derivational approach to Double Object Constructions (DOCs) and parallel dative construction across languages. We extensively argue that the arguments to postulate a non-derivational approach to dative construction do not hold and that, in fact, such an approach runs into unsolvable problems. We argue that the structural alternation is triggered by Preposition (applicative) incorporation and Case/Agreement-relational considerations. We maintain a unified analysis of dative and PP constructions at the level of argument structure, while deriving the structural and Case differences as a consequence of the incorporation of P and its modification of the Case requirements. Combined with a non-symmetric theory of Case, this approach yields the right results for most of the properties traditionally associated to dative constructions. An obvious advantage of our approach with respect to both classical transformational approaches and polysemy analyses, is that it can account in a neat way for the "mixed" behavior of the applied and the second objects in dative constructions with regard to "direct object"-hood, without the need for any stipulative move, completely separating Case relations from argument structure.

1. Introduction.

This paper argues for an updated version of the classical derivational approach to Double Object Constructions (DOCs). The structural alternation is argued to involve

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Preposition (applicative) incorporation, usually followed by dative shift. We also extend the analyses to Dative (Clitic) Constructions in a large variety of languages and argue that Dative Case is the morphological manifestation of a STRUCTURAL agreement/Case relation that shows up in certain PP-incorporation contexts.[1]

The paper is organized as follows. In section 2 we extensively argue against analyses that postulate two different base structures, one for the PP construction (e.g. English *to*-construction) and other for the DOC. Our arguments are organized in two steps: i) following recent work in the literature (especially Bresnan & Nikitina 2003 [henceforth B&N], Rappaport-Hovav & Levin 2008 [R-H&L], and Ormazabal & Romero [O&R] 2002, 2007), we first show that the purported semantic differences used to justify dedicated base structures may be reduced to lexical properties of the verbs and prepositions involved or to pragmatic factors, hence undermining the strength of polysemy approaches (section 2.1.); ii) we then present a stronger refutation by presenting arguments that show that polysemy proposals run into unsolvable syntactic as well as semantic problems (section 2.2).

In section 3 some questions are also raised concerning what we call "compatible frames" approaches to dative constructions, both in its projectionist version (RH-L) and in the constructivist one (specially Ramchand 2008). In doing so, we analyze some interesting structural properties of benefactives and secondary predication that will become important to support our derivational analysis.

In section 4 we present a constructivist implementation of the classical derivational approach to dative alternations. We then discuss in section 5 how our theory derives the multiple structural differences between dative constructions and PP-

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[1] As will become clear in our analysis, we conceive the process as applicative incorporation, in the sense of Baker (1988) and subsequent work. However, in the last years the term "applicative" has acquired a connotation that goes against the spirit of our analysis. In particular, the adscription of a particular property to applicatives in the descriptive sense has been often used, without much motivation, as an argument in favor of theoretical proposals involving independent applicative projections at the functional level. In order to avoid throwing more confusion to the discussion, we have decided to use the term P-incorporation, since we consider this syntactic process to be the main trigger for the different properties shown by the dative alternation in many languages. That been said, we must observe that we are convinced that applicative constructions, in the descriptive sense the term has in say Bantuist studies, are very close in many respects to dative constructions and are better analyzed theoretically as cases of P-incorporation than in terms of applicative projections in the functional component. Arguments against polysemic approaches to dative alternations below also support our choice.

constructions discussed in the literature, and how several issues discussed in previous sections are accommodated.

We will follow much current research in treating DOCs together with Dative Constructions (DCs) in a large variety of clitic and agreement languages, where they also alternate with a prepositional construction in the same contexts, and participate in agreement relations with the verb (see discussion and references in O&R 2007, in progress).[2] It must be observed, however, that most arguments presented in the paper are independent of this extension and would equally apply if we considered DOCs as genuinely different constructions.[3] We will also assume the arguments presented in some of these works arguing that dative case is not inherent, but structural, since it is not semantically bound, and it enters into typically structural Case/agreement relations such as subject in causative relations.

2. The Semantic Uniformity Of Dative Alternations

Many analyses of the dative alternations in (1), the so-called "polysemy approaches" (Jackendoff 1989, Pinker 1989, Harley 2002, Pylkkänen 2002, Krifka 2004, among many others), propose two different syntactic structures for the PP-construction in (1a) and the dative construction in (1b):

(1)   a.   Mary gave a book to Peter
        b.   Mary gave Peter a book

These analyses are based on the assumption that each of the two syntactic structures in (1) is uniquely associated to a single semantic interpretation of the type in (2) (adapted from Krifka 2004):

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[2] As a terminological convention, we will follow other authors in naming DOCs and their parallel constructions as "dative constructions", the first object of DOCs and the dative-marked argument in dative languages (the benefactive, etc. argument) as the "dative" or "applied argument". We will also use the term "PP-construction" to unify pre- and post-positional phrases such as English *to*-constructions and Basque constructions with postpositional phrases.
[3] In any event, from a Principles & Parameters conception of grammar, where constructions are considered as epiphenomena of deeper and more general constraints, what we have is a set of common properties shared by DOCs and dative constructions, and many of them by other applicative constructions, that require a unified syntactic or semantic account: they share the same argumental structure, the mentioned alternating structures show the same c-command asymmetries, etc. (See also footnotes 6 and 9).

(2) a. ∃e∃e' [AGENT(e, Mary) ∧ THEME (e, book) ∧ CAUSE (e, e') ∧ **MOVE (e')** ∧ **THEME (e', book)** ∧ **GOAL(e', Peter)**]

   b. ∃e∃s [AGENT(e, Mary) ∧ THEME (e, book) ∧ CAUSE (e, s) ∧ **S: HAVE (Peter, book**)]

The semantic representation of the PP-construction in (2a) states that there is an event *e*, that the agent of *e* is Mary, and that *e* causes a movement event *e'* whose theme is the book and whose goal is Peter. In contrast, the semantic representation of the dative construction in (2b) states that there is an event *e*, of which the agent is Mary, and that event *e* causes a state *s* of Peter having a book. The main difference in the interpretation of the two constructions would be that while the indirect internal argument in the PP-construction has a salient directional meaning (*MOVE (e')* in (2a)), the relation between the two arguments in the dative construction rather involves a "transfer of possession" relation *(HAVE (Peter, book))* in (2b)). According to the proponents of the polysemy approach, this difference would also be associated to the other structural and semantic differences discussed in the literature distinguishing dative constructions and their PP counterparts.

Recent works on the DOC and similar constructions in other languages challenge the theoretical and empirical adequacy of this prevailing view. Based on arguments by B&N, R-H&L and O&R (2002, 2007), we show that the syntax of idiomatic expressions, inference patterns, possession restrictions and animacy effects cannot be semantically explained, since there is no strict (neither loose) correspondence between meaning and syntactic structure. Furthermore, we also show that the semantic characterization of dative constructions postulated in (2b) would run into serious problems when considered in connection with other properties of the constructions involved.

2.1. One meaning → two syntactic structures

Concerning the main difference between dative constructions and PP-constructions in the semantic representations in (2), R-H&L observe that the "caused motion" meaning linked to the PP variant in (2a) is completely absent from various verbal classes that still show this syntactic alternation. Among them we can mention verbs inherently denoting acts of giving (*give*, *hand*, *lend*, etc.), future having (*allocate*, *allow*, *grant*, *promise*, ...),

and communication (*tell*, *show*, *teach*, ...). Second, they also argue that the caused possession reading, which is supposed to be associated to the dative construction, is also present in PP-constructions in verb classes that express caused motion. Furthermore, verbs of sending, instantaneous causation of ballistic motion, etc. entail change of location not only in the PP-construction, but also in dative constructions, contra expectations in the polysemy approach. In the next subsections we review these arguments very briefly. We refer to the original works for more detailed discussion.

2.1.1. Is there a path?

The first cluster of arguments focuses on the status of the path phrase allegedly encoded by the preposition in PP-constructions. Polysemy approaches fail to capture the fact that although the meaning of *give* only involves transfer of possession and is not associated with a caused motion event, it nevertheless can be realized in both the dative construction and the PP variant.

2.1.1.1. Paths, where? Only-caused-possession (OCP) verbs like *give* or *allocate* can never be questioned by 'where', contrasting in that respect with also-caused-motion (ACM) verbs like *send* (Levinson 2005):

(3)   a.   * Where did you give the bicycle?
        b.   Where did you send the bicycle?

This property is possibly related to the fact that *to* with OCP verbs only takes animate complements, an otherwise odd property for paths. We will return to this issue in 2.1.2.

2.1.1.2. Paths of possession. If each structure were the reflex of a different meaning, it would be expected that both meanings could not be expressed at the same time (cf. semantic characterization in (2)). However this prediction is not borne out; as shown in (4), from R-H&L, the caused motion and the caused possession meaning are licensed in the same sentence.

(4)   Her father sent her (POSSESSOR) a telegram to America (GOAL)

2.1.1.3. Along the path. R-H&L also observe that verbs encoding a path (ACM) may introduce it with a range of prepositions (5) and with path phrases that include modifiers further specifying the extent of the path (7), none of witch is possible with OCP verbs like *give* (8a-c).

(5)   a.   Fred threw/kicked the ball ***under/behind*** the tree/*over* the fence. SPATIAL
        b.   Jill threw/kicked the ball *from* home plate to third base. SOURCE
        c.   Jake threw/kicked the ball *out* the window
        d.   Jake threw/kicked the ball *at/to* third base. GOAL

(6)   Jake threw/kicked/*gave the ball *all the way/halfway* to Bill.

(7)   a.   * Josie gave/handed the ball *from/under/behind/at* Marla (to Bill).
        b.   * Sam gave/handed the ball *off* the shelf/*out* of the basket.
        c.   * Susan gave the ball *all the way/halfway* to Bill.

Once again, this contrast supports a radical difference in the interpretation of the PP: with verbs like *throw*, *kick* etc. this PP is naturally interpreted as a path while the PP argument of *give, hand* etc. is not. Consequently, the PP complement is interpreted differently depending on the properties of the predicate and attributing to it a dedicated caused motion interpretation is pointless.

2.1.2. Animacy effects

An issue often mentioned as an argument against derivational approaches to dative alternations and in favor of the existence of dedicated syntactic and semantic structures in dative alternations is Green's (1972) original observation that dative shift uniformly shows animacy restrictions, yielding contrasts of the type illustrated in (8)-(9):

(8)   a.   I sent a letter to Peter
        b.   I sent a letter to Paris

(9)   a.   I sent Peter a letter
        b.   * I sent Paris a letter

Standard polysemic approaches attribute this effect to the different syntactic and semantic structure associated to each construction. It is often ignored in these approaches, however, that the same animacy effects may also be observed with certain verbs also in the *to*-construction. Thus, in their detailed discussion of the properties of the prepositional elements combining with dative alternating verbs, R-H&L show that

with predicates that are restricted to a caused possession meaning (e.g., *give*-type verbs; see previous section) the complement of the preposition *to* must also be animate (10). In that respect, they contrast not only with *send*-type verbs (8), but also with the other predicate types that according to them allow both a caused possession schema and a caused motion one such as the *throw*-type (11):

(10)   a   I gave the package to Maria
        b. * I gave the package to London

(11)   b.   I threw the ball to Maria
        c.   I threw the ball to the other side of the field

The existence of animacy effects with the *to*-construction illustrated in (10) makes the argument for a polysemic approach unsound, and becomes an interesting piece of evidence for alternative derivational approaches (see Ormazabal & Romero, in progress, for detailed discussion).

2.1.3. Inference patterns

Proponents of the polysemy approach argue that the dative construction has an inference of successful transfer which is absent in the PP-construction (see, Krifka 2004, Beck & Johnson 2004, and references therein). However, R-H&L show that transfer inferences are determined solely by the choice of verbs, regardless of the syntactic structure the verb appears in (see also Jackendoff 1989). Thus, verbs that inherently signify acts of giving (*give*, *hand*, *lend*, *loan*, etc.) entail successful transfer in either variant (12). On the other hand, verbs of future having (*owe*, *offer*, *promise*, etc) fail to entail it in both the dative construction and the PP-construction (13). Thus, with some predicates successful transfer is lexically encoded, independently of the event schema associated to each syntactic variant, and with others it is not an entailment but an implicature governed by pragmatic factors.

(12)   a. # His aunt gave/lent/loaned my brother some money for a new car, but he never got it.
        b. # His aunt gave/lent/loaned some money to my younger brother, but he never got it.

(13)   a.   Max offered help to the victims, but they refused his offer.
        b.   Max offered the victims help, but they refused his offer.

2.1.4. Uniqueness

The polysemy literature often associates the lack of alternation in certain sentences to a specific or an idiomatic reading. However, several authors have recently challenged the accuracy of the description showing that, when the dative construction is the alleged only option, the availability of the second interpretation is in fact subject to the heaviness of the goal argument and some other prosodic factors (Snyder, 2003; B&N; R-H&L).

2.1.4.1. Nixon sentences. Oehrle (1976) observed that when the subject of *give* is not understood as an agent, but as a cause, it must be expressed by means of the dative construction (14).

(14) a.   Interviewing Richard Nixon gave Norman Mailer a book
     b.   *   Interviewing Nixon gave a book to Norman Mailer

However, Snyder (2003) and B&N (2003) showed that when the goal is a heavy NP, Nixon sentences are also compatible with the PP-construction (15c) conveying the very same meaning.

(15) a.   Nixon's behavior gave Mailer an idea for a book.
     b.   #   Nixon's behavior gave an idea for a book to Mailer.
     c.   Nixon's behavior gave an idea for a book to every journalist living in NY city in the 1970s.

2.1.4.2. Idiomatic expressions. B&N and R-H&L have shown that, contrary to what is generally claimed, idioms that are typically associated to the dative construction may also appear in the PP construction (16) retaining its idiomatic meaning; they thus show that the restriction governing the distribution of idioms, often discussed in the literature as an argument for the polysemy approach, is also illusory (examples selected from B&N and R-H&L):

(16) a.   Mr. Major was set to read the riot act to ministers
     b.   Police lend an ear to the victims
     c.   Why can't we give a break to the people who organize [the matches]?
     d.   The silly clowns sometimes give a hard time to the emperor
     e.   Still, I took it back today and gave some grief to the assistant and came out with a better scanner than I had paid for on Tuesday

2.1.4.3. Summary. In sum, polysemy approaches fail to capture the absence of one reading with verbs that nevertheless may appear in both syntactic structures, and the co-occurrence of the two different interpretations in the same syntactic structure. Once the whole range of verbs entering in the dative alternation is considered in detail, interpretive properties that polysemy approach attribute to different syntactic structures show to be in fact determined by the lexical properties of the predicates involved or by pragmatic and information-structural considerations, and never uniquely associated to the dative construction or the PP-constructions themselves. From a crosslinguistic perspective this was an obvious fact from the beginning, obscured by the relatively low productivity of this construction in English.[4]

2.1.5.   Integral relations

Given that the main arguments proposed in the literature to justify the polysemy approach have been rejected,[5] the only remaining argument we are aware of that could potentially justify different structures is the integral interpretation reported in the literature to be associated to locative dative constructions (Bosque & Masullo 1998, Romero & Moreno Quibén 2000). It has been observed that in cases like the ones in (17)-(18), the dative construction has a somehow more restricted interpretation than its PP-counterpart:[6] [7]

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[4] Obviously, nobody denies that some of the verbs that enter in the dative alternation might be polysemic, having both the transfer of possession and the directional goal interpretation. What we reject is the idea that these two meanings have a dedicated structural realization. However, it has to be noted that there are certain syntactic effects uniquely associated to the PP construction. For instance, certain idioms may only appear in the PP variant (see sec. 3.1, and heavy NP shift may only take place in PP constructions (Oehrle, 1990).

[5] An anonymous reviewer points out to us another difference between DOCs and PP-constructions is that the former provide one more additional temporal anchor point than prepositional constructions, as discussed by McCawley 1974 and Brandt (2003):

(i)   a.   Otto promised Anna the bike next week
        b.   ??   Otto promised the bike to Anna next week

The reviewer also suggests a way to deal with these facts in our analysis by taking advantage of the derivational history of the dative argument, linking it to Brandt's analysis in terms of "subjecthood" and raising. Unfortunately, we cannot pay enough credit to the reviewers suggestion in this paper and we will have to leave it for further research.

[6] An anonymous reviewer points out that sentences in (18b) and (20b) are not ungrammatical, but rather "anomalous". The problem, it seems to us, is that there is no *a prioristic* definition of what counts as part of what. We can imagine, for instance, a situation where the legs of the table are frog-shaped, in which case (18b) would be wholly felicitous. Interestingly, (20b) does not

(17) a. María puso las patas en la mesa
      María put the legs on the table
      'Mary put the legs on/to the table'
   b. María *(le)   puso las patas a la mesa
      María CL-(3DAT) put the legs A the table
      'Mary put the legs to the table (assembled the legs in the table)'

(18) a. María puso la rana en la mesa
      'María put the frog on the table'
   b. ?* María le   puso la rana a la mesa
      María CL(3DAT) put the frog A the table
      'Mary put the frog to the table'

Thus, (17b) can only be interpreted as bearing an integral or canonical relation between the legs and the table, where the former are part of or belong to the latter. When there is no possible integral interpretation, (18b), the sentence is highly deviant. This asymmetry might suggest a different syntactic source for each construction. However, as interesting as it may be, this property is not structurally associated to the dative construction. First, Johnson (1991) already observed that this integral interpretation also appears in other contexts such as in the nominal construction (see also Castillo 1998): [8]

(19) a. Las patas de la mesa
      the legs of the table
   b. La rana de la mesa
      the frog of the table

(20) a. Sus patas
      its legs
   b. * Su rana
      its frog

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significatively improve. Furthermore, sentences subject to the so-called animacy constraint are clearly treatable as instances of pure ungrammaticality. However, we cannot figure out what formal property or feature may tease apart examples (19) from those in (20).

[7] As briefly mentioned in the introduction, we follow extensive work in different dative clitic languages that treat the pair in (i) as an instance of the dative alternation, (ia) behaving together with English *to*-constructions and (ib) with DOCs [Spanish examples from O&R 1998]:

(i) a. Los niños entregaron el libro a Sara
     the children gave   the book to Sara
  b. Los niños le   entregaron el libro a Sara
     the children CL3DAT gave   the book to Sara

For arguments in Spanish, see especially Demonte (1995), Romero (1997) and Cuervo (2003); for references in a large variety of agreement and clitic languages, see O&R (1998, 2002, 2007).
[8] Note that even in English the same contrast seems to appear in the *to*-construction:

(i) a. ??? Mary put the legs to the table
  b. * Mary put the phone to the table

Furthermore, this construction may also be observed in bare noun complements in Spanish (21), from Romero & Moreno Quibén (2000), suggesting that the integral relation does not directly bear on the semantic differences between the dative and the PP-construction:

(21)   a.   Juan puso los guisantes en lata
                     Juan put the peas   in can
                     'Juan canned the peas'
         b.   Antonio lleva sombrero
                     Antonio wears hat
                     'Antonio is a hat-wearer'

In spite of the absence of any structural or morphological change on the sentence, examples in (21), from Romero & Moreno Quibén, 2001, may only receive an integral interpretation. This interpretation is directly linked to the presence of a bare singular noun as object (21a) or P complement, and vanishes as soon as the noun appears in plural or introduced by a determiner. Consequently, the phenomenon does not seem to constitute a strong argument to postulate two different underlying structures.

2.2 . *Poly-polysemic Approaches*

The arguments presented so far show that the alleged semantic differences between the PP-construction and the dative construction either do not exist or they are independent of the two constructions under comparison. Most of the arguments so far apply both to English DOCs as well as Dative (Clitic) Constructions in a large variety of languages. By looking at languages where the dative construction is used in a more productive and systematic way than in English, in this section we strengthen our argument by showing that an analysis that postulates two different semantic structures is not only unnecessary and *ad hoc,* but in fact it runs into very serious problems.

Languages vary considerably regarding the semantic interpretations applied objects allow. While in best studied languages, the applied object in dative constructions is interpreted as a recipient/goal or as a benefactive, in other languages its interpretation also extends to locative, allative, comitative, circumstantial or instrumental (Peterson 2007; ch. 3). With some restrictions, more or less the same variability can be observed in dative constructions across languages. In fact, dative languages resemble in many respects applicative languages: the latter act like head

marking languages, and the former like dependent marking ones, where the applicative marking conflates in one morphological form (see O&R 2002).[9] Thus, dative DPs in Basque can be interpreted as benefactive (22a), source (22b) or locative (22c), among other options, depending on the predicate and the context (see Arregi 2003 for extensive discussion):

(22)   a.   Miren-ek aitona -ri   bazkari-a   prestatu dio
               Mary-ERG grandpa-DAT lunch -DET prepare Aux(3DAT-3ERG)
               'Mary prepared lunch for grandpa'

       b.   Miren-ek   aitona -ri   liburu-a   hartu dio
               Mary-ERG grandpa-DAT book-DET take Aux (3DAT-3ERG)
               'Mary took the book from grandpa'

       c.   Miren-ek kotxea-ri   gasolina jarri dio
               Mary-ERG car   -DAT gas-DET put-on Aux(3DAT-3ERG)
               'Mary put gas on the car'

Like DOCs in English, the dative examples in (23) have PP-counterparts, each of them with a semantically dedicated postpositional element:

(23)   a.   Miren-ek aitona-rentzat bazkari-a   prestatu du
               Mary-ERG grandpa-for   lunch -DET prepare Aux(3ERG)
               'Mary prepared lunch for grandpa'

       b.   Miren-ek aitona-rengandik liburu-a hartu du
               Mary-ERG grandpa-from   book-DET take Aux (3ERG)
               'Mary took the book from grandpa'

       c.   Miren-ek kotxe-a-n gasolina   jarri   du
               Mary-ERG car-DET-on gas   -DET put-on Aux(3ERG)
               'Mary put gas on the car'

   A polysemy analysis would have to postulate different pairs of semantic representations for each class of verbs involved in the alternation (one for the *prepare*-class, another one for the *take*-class, etc.) in which the semantic representation of dative constructions would be suspiciously close to its PP-construction correlate. This situation becomes dramatic when we look at ambiguous sentences. Consider the following Basque example:

(24)   Nora-k   Maddi-ri   diska bat   erosi dio
       Nora-ERG Maddi-DAT record one.ABS buy   Aux (3DAT-3ERG)
       'Nora bought a record from/for Maddi'

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[9] Among applicative languages, some of them show a clear morpho-phonological relation between the prepositional elements in PP-constructions and the applicative marker, and some other have a specific morphological form, synchronically different from pre- or post-positions, for the applicative marker in the verbal complex.

As pointed out in the gloss, the dative argument in (24) can be interpreted as either source or beneficiary of the action described by the verb *erosi* ('buy'). These readings correspond to the two basic postpositional phrases compatible with the verb in (25a-b):

(25)   a.   Nora-k   diska bat   erosi du   Maddi-rentzat
                Nora-ERG record one.ABS buy Aux (3ERG) Maddi-for
                'Nora bought a record for Maddi'

        b.   Nora-k   diska bat   erosi du   Maddi-rengandik
                Nora-ERG record one.ABS buy Aux (-3ERG) Maddi-From
                'Nora bought a record from Maddi'

If the dative may be derived either from a source or a beneficiary postpositional phrase, as we will argue, the ambiguity is derived automatically. However, in a polysemy approach, the interpretations of the dative argument require two different semantic representations, both capturing the alleged possession relation, but at the same time capturing the meaning expressed by each of the prepositions, roughly as in (26):

(26)   a. $\exists e \exists s$ [BUY (e) $\wedge$ AGENT(e, Nora) $\wedge$ THEME (e, record) $\wedge$ CAUSE (e, s) $\wedge$ *s: HAVE (Maddi, record)*]

        b. $\exists e \exists s$ [BUY (e) $\wedge$ AGENT(e, Nora) $\wedge$ THEME (e, record) [$\wedge$ SOURCE (e, Maddi)] $\wedge$ CAUSE (e, s) $\wedge$ *s: ¬HAVE (Maddi, record)*]

It is not clear that the representation in (26a) captures the basic benefactive relation hold by the dative *Maddiri* in the sentence*,* and it is more than clear that (26b) fails to capture the source relation hold by *Maddiri* unless the subformula in brackets is explicitly added, in which case most of the non-possession relation part would be redundant. But leaving those details aside, the representations in (26) have the curious property of attributing to the semantic representation of the same verb a final state of possession in one case —"x (benefactive) *have* y", in (26a)— and a final state of lack of possession in the other —the "x (source) not-have y" in (26b).

Moreover, each representation would have to incorporate the semantic import of a preposition that the polysemy approach claims not to be there. In general, the level of semantic ambiguity the dative argument tolerates with each verb in a given language seems determined by the range of PPs compatible with that verb, modulo the set of possible interpretations the dative is allowed to have in that language. Spanish or

French, for instance, allow locative applied phrases, but English does not. Under the proposal to be developed in section 3. below, a natural place to posit this restriction is in P, in accordance with our discussion in section 2.1.2.[10] Independently of how the typological differences with regard to the interpretation of the applied element are derived, certainly a non-trivial issue, this correlation would always remain completely mysterious in polysemy approaches, which must postulate a panoply of syntactic and semantic structures for each pair.[11]

2.3. Conclusions

Summarizing our results so far, we have argued that the arguments to postulate a polysemy approach to dative constructions do not hold; in fact, such an approach runs into unsolvable problems. This leaves us with two main possible approaches to the dative alternation. On the one hand, the "compatible frames" approach (see especially Ramchand 2008 and R-H&L) hypothesizes that verbs may be freely introduced in a range of structures compatible with its lexical encyclopedic content; if, say, the lexical content of *give* is compatible with the interpretation range of both the dative

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[10] In fact, there are languages that make use of a different applicative morpheme for each value. For instance, Hakha Lai, as discussed by Peterson (2007) there is an entire family of applicative markers.

[11] It has been often argued that DOCs cannot be paired together with dative constructions and applicatives. The arguments are based on productivity, morphological markedness and the range of semantic interpretations allowed by the applied argument. The situation is more complex than usually accepted, however, and there is no clear cut in the spectrum of possible applied objects that could make a reasonable distinction between the three constructions also in this respect.

   In any case, even if the attempts to distinguish DOCs from the other constructions were successful, it is important to notice that the purported transfer of possession effects associated to English (i) also appear associated to the lexical content of the same verbs in, say, Basque or Spanish (iia-b) respectively.

(i)   Mateo gave a letter to Sara

(ii)   a.   Mateo-k   Sara-ri   eskutitza   eman zion
              Mateo-ERG   Sara-DAT letter-ABS give Aux([3ABS]-3DAT-3ERG
        b.   Mateo le   dio   la carta a Sara
              Mateo CL3DAT gave-3SUBJ the letter to Sara

Given that English DOCs are in the restrictive side with regard to the semantic possibilities allowed for the applied argument (see discussion in the text), postulating a polysemy analysis just for the case of English DOCs would not close the issue. In languages with a richer range of applied objects, derivational mechanisms would have to achieve the same possession effects postulated lexically for English.

construction and the *to*-construction, it may freely appear in both constructions. Alternatively, we may appeal to some version of the classical derivational approach.

In the next two sections we extend our discussion to the first type of analysis and show that both Ramchand's and R-H&L's analyses, for different reasons, fail to capture certain crosslinguistic properties of the dative alternation. We then present a modified version of the classical derivational approach and show how this proposal captures the main structural and semantic properties of dative alternations.

3. Compatible Frames...

3.1. ... in a projectionist approach

RH&L (2008) propose a projectionist approach where the semantics of ditransitive verbs is compatible with the dative alternation. This proposal is still subject to problems due to the fact that argument projection is lexically determined. First, fixed goal idioms (27) are disallowed in dative constructions, in contrast with what happens with DOC idioms (see section 2.1.4.2):

(27)　a.　　Send x to the showers, push x to the edge, throw x to the wolves, ...
　　　b.　*　Send the showers x, *push the edge x, *throw the wolves x,...

To account for these facts, RH&L are forced to propose that these idioms encode an abstract form of caused motion (GOAL) incompatible with the dative construction (INTENDED POSSESSOR). As we have seen, crosslinguistically this is not the right kind of explanation, since, as they point out, dative constructions are wholly compatible with this interpretation. Furthermore, this solution re-introduces polysemy as a triggering factor for syntactic projection, with the additional drawback that argumental status (GOAL vs. INTENDED POSSESSOR) is not determined by the verb, but by the properties of the argument itself (cf. sec. 2.2.4).

Second, this approach overlooks the existence of dative alternations with transitive verbs, mainly with benefactive adjuncts (28).

(28)　a.　　I bake a cake (for Mary)
　　　b.　　I bake Mary a cake

Since benefactives are not selected by the verb, it does not make much sense to argue that the lexical-semantic frame of a transitive verb is compatible with two different syntactic structures *as a lexical property* of that verb. Adjuncts simply cannot take part on "frame decision".

Finally, this approach is also subject to the poly-polysemic problems mentioned in section 2.2, since the dative frame may encode not only different, but even contradictory meanings.

3.2. ... in a Constructivist Approach

Ramchand's (2008) constructivist hypothesis is by definition not subject to the benefactive augmentation problem we observed with regard to R-H&L's proposal. Unlike in projectionist approaches, where the syntactic structure is mediated by linking rules that project the argument structure determined in the lexicon, neo-constructivist approaches argue that the flexibility of the predicate to appear in different syntactic and argument-structural contexts derives from the combination of a very impoverished lexical entry together with the assumption that meaning derives from the syntactic structure. However, her account in (29) has all the ingredients of a polysemy analysis, maintaining the basic correlation between syntactic structure and semantic interpretation that we saw before.

(29)
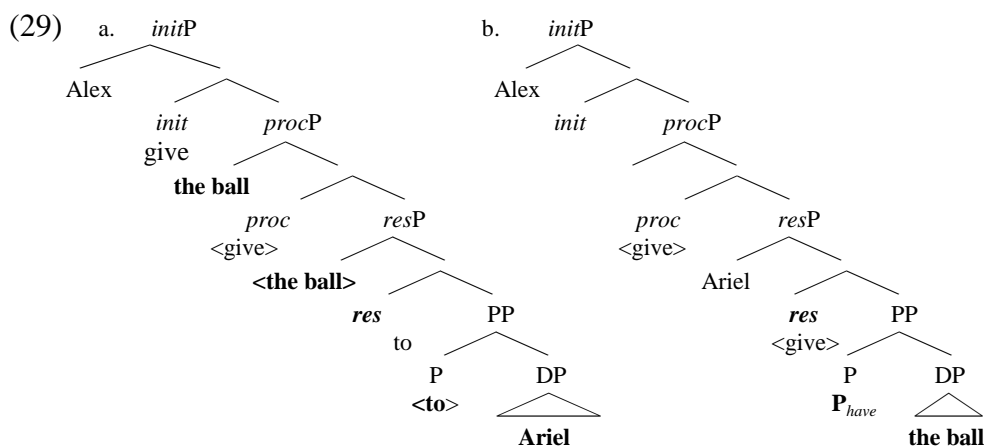
In fact, she explicitly endorses Harley's (2002) possession-based proposal to DOCs. As such, her analysis is consequently subject to the same objections mentioned above with respect to the polysemy approach. We understand, however, that what Ramchand tries to emphasize in her proposal is the resultative nature of the relation in dative constructions and that the possession relation would be derivative. In that respect, given

that in Ramchand's theory projections are not thematically determined, we consider that the analysis has some value that polysemy approaches lack altogether. Yet, her proposal presents additional problems that suggest the need for an important revision. In the next subsections we consider the main problems we observe and suggest what direction they seem to point to.

3.2.1. Secondary predication is not structural after all

Since, at least, Williams (1980), it has been assumed that neither indirect nor applied objects can act as subjects of a secondary predicate (SP). Provided that the verb-complement relation is of a structural nature, examples in (30) would show that the goal argument is in a position where it cannot receive a secondary predicate. According to Ramchand, this position is the specifier of *ProcP*.

(30)　a.　*　Peter gave the bottle to the baby crying
　　　　b.　*　Peter gave the baby the bottle crying

However, several authors have recently questioned the accuracy of this descriptive generalization. Pylkkännen (2002: 33-36) argues that there are some languages whose applied argument may receive SP (in her terminology "high applicative languages"). Although the evidence she presents is rather murky,[12] other authors such as Marušič, Marvin & Žaucer (2004) present more compelling data from Slovenian showing that in this language secondary predication is indeed available for applied arguments:

(31)　Peter　je　dal　Meti$_i$　piškote　že　vsej polomljeni$_i$
　　　Peter.NOM AUX gave Meta.DAT biscuits.ACC already all.DAT broken.DAT
　　　'Peter gave Meta$_i$, some biscuits all broken$_i$ (=back-sore$_i$)'

To accommodate similar facts, Ramchand follows Pylkkännen's analysis splitting applicatives into two types. Accordingly, only high applicatives allow SP. However, accounting for SP distribution in this terms does not seem to be the right move, because "high applicative languages" also allow secondary predication with PPs in general, as illustrated in (32).

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[12] In two of the languages she presents, Verna and Albanian, there is a pronominal element mediating the relation between the argument and the secondary predicate, and in the third one, Luganda, there is an element Pylkkännen terms "depictive head", whose role in the construction she does not explain. Furthermore, all the examples she provides are based on unergative constructions, which typically show an alternation between direct and indirect object marking in many languages.

(32) a. Včeraj smo na Vida$_i$ še čisto pijanega$_i$ naleteli na
         Prešercu
         yesterday AUX onto Vida.ACC still completely drunk.ACC ran on
         Prešeren
         'Yesterday we ran into Vid$_i$ at Prešeren square, and he$_i$ was still
         completely drunk$_i$'

      b. Peter je dal knjigo na mizico$_i$ že vso razmajano$_i$
         Peter.NOM AUX gave book.ACC on table.LOC already allLOC
         wobblyLOC
         'Peter put the book on the little table$_i$, and it$_i$ was already completely
         wobbly$_i$'

This casts serious doubts on structural analyses that explain SP on the applied object in terms of the position this argument is inserted. Marušič, Marvin & Žaucer also bring to the discussion data from other languages such as Russian (Richardson 2003), Icelandic, German, and even English (Maling 2001), and all the reported facts seem to point consistently in the same direction. Moreover, Romero (1997) observed that SP is marginally accepted in Spanish dative constructions, and with the preposition *con* ('with'):

(33) Se fue con las manos vacías y volvió con ellas llenas
      CL(REFL) went.3SG with the hands empty and came.3SG with them full
      'He left with his hands empty and came back with them full'

(34) ? Le puso la inyeccion sano
      CL(3SG-DAT) put the injection healthy
      'She gave him an injection while he was healthy'[13]

The range of acceptable predicates in (34) is restricted and marginal. Apparently, this construction is available with those predicates that only combine with *estar*, the stage-level variant of *be* in Spanish. These facts show that SP in these contexts is not structurally, but lexically constrained, and that languages that allow SP within certain PPs also allow it with the applied argument. This correlation, in conjunction with the fact that languages with agreeing prepositions disallow dative constructions (see O&R

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[13] Note that this sentence, slightly modified for pragmatic reasons, is also marginally acceptable in its PP variant:
(i) ? Puso la inyección al paciente curado
       put the injection to-the patient cured
       'She gave an injection to the patient once cured'

2002, 2007), clearly indicate that the preposition is playing a major role in the derivation of the dative construction.[14]

3.2.2. The nature of the undergoer in Dative Constructions

A second problem Ramchand's treatment of dative constructions and dative constructions faces is its failure to account for the "theme properties" of the second object. As just said, her analysis accounts for the fact that no matter how many direct object properties are satisfied by the applied object: it is never interpreted as the undergoer of the event, because it never sits in the specifier position of *Proc*P. Yet, for the same reason, it is not obvious how in her proposal the second object gets its "theme properties" either. As can be seen in (29), above, the specifier position of *Proc*P is empty, and the structure should have no undergoer. In particular, *the ball* cannot raise to the *Proc*P in her system, since that would convert it into the "first" object for Case purposes, yielding the wrong results. In order to capture the undergoer properties of the second object in dative constructions, Ramchand is forced to stipulate that there is an implicit undergoer in the specifier of *Proc*P that "controls" the second object. We will return to this issue in section 5.1 and show that our analysis eliminates the need for that stipulation altogether, yielding additional interesting results.

4. A derivational approach to Dative Alternations

4.1. The Classic Applicative Incorporation

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[14] As for Pylkkännen's (2002) analysis, in our opinion it is basically a fancy version of the polysemy approach and, as such, suffers from the same problems pointed out earlier in section 2 regarding such analyses. Her distinction between high and low applicatives merely describes, rather than explains, the situation concerning the non-uniform behavior of applied objects with regard to the possibility of establishing secondary predication relations, and relies almost completely on very dubious empirical evidence (see fn. 7). If, as the other sources on the topic seem to point out, the correlation discussed in the text is on the right track, her analysis also fails to capture the connection between the prepositional phrase of oblique constructions and the applied object of dative ones. Furthermore, an anonymous reviewer observes that secondary predication is fully compatible with dative subjects in causative constructions in languages where otherwise secondary predication on the dative argument is not allowed but it is on subjects (.e.g. French and Spanish or Basque):

(i)   El hipnotizador le   hizo comer la manzana dormido
        The hypnotist CL-3DAT   made eat   the apple   asleep
        "The hypnotist made him eat the apple asleep"

This distribution supports the idea that secondary predicates on datives are possible as long as

Our proposal is a modern version of the classical derivational approach to dative constructions (Baker, 1988; Larson, 1988, etc.). In Baker's version, this approach derives the main syntactic properties of the dative alternation from the incorporation of an applicative morpheme, an adpostpositional head, which triggers in turn a whole set of Case and agreement related properties.[15]

(35) Applicative-incorporation SCHEMA:
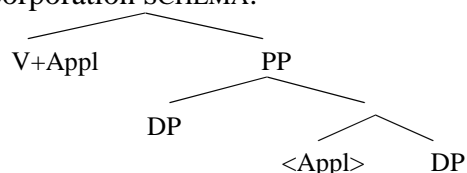
In a 2006 manuscript version of her book, Ramchand (2008) argues that a derivational analysis goes directly against the spirit of a constructivist view, which has no level of representation for argument structure (see also e.g. Pylkkännen 2002 for a similar argument).

Contrary to this view, we contend that the projectionist vs. constructivist discussion is independent of the monosemy vs. polysemy issue. Derivational approaches, starting with Larson's (1988), have often appealed to the PP-construction as the "source" or "primary" one, but the dative construction is derived by means of the functional, not argumental, properties of the sentence. In our approach both constructions derive via general structure-building mechanisms where merge proceeds in the same way and the thematic relations are represented structurally in exactly the same way. At some point in the derivation the option of incorporating the prepositional element makes the two derivations divergent. Thus, a single local decision, whether the preposition incorporates or not, sets off a cascade of differences that affect syntactic relations at the functional level, but does not alter thematic configurations. This is, we believe, the expected result in a system where the different constraints of the grammar are so closely intermingled. Clearly, this leaves open questions related to the optionality of movement and to late morphological insertion, but those are issues very different
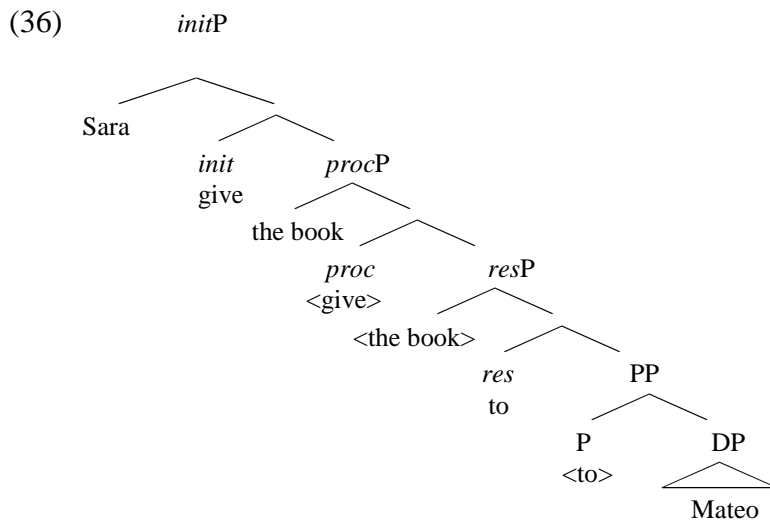
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they are licensed in their base position.

[15] Notice that we do not propose a multiple incorporation, N-to-P-to-*proc*, which seems to be what Oyharçabal (this volume) has in mind when he criticizes our proposal. Our analysis involves standard incorporation of the applicative head into the verbal element and "advancement", in Relational Grammarian terminology, of its object.

from the representation of argument structure, both empirically and theoretically (see O&R in progress), and do not put at risk the viability of a possible constructivist approach to argument structure.

4.2. The Argument-Structure of Dative Constructions and the "Mixed" Properties of first and second objects

For the sake of the discussion, let us assume Ramchand's structure for the PP-construction as the starting point. In (36), a small clause headed by the prepositional head *to* defines a bounded path of the object, 'the book' to its final point, in this case the denotation of the DP 'Mateo'.[16]

(36)

```
              initP
            /      \
        Sara        \
                init    procP
                give   /    \
                  the book   \
                         proc   resP
                        <give>  /   \
                         <the book>  \
                                 res    PP
                                  to   /   \
                                      P     DP
                                    <to>   /    \
                                          Mateo
```

Since thematic relations are determined structurally, 'the book' in the specifier of *proc*P becomes the undergoer of the event of giving, and the PP determines the path whose final point is the DP, 'Mateo'. Given the results in sections 2-to-3, we must assume, in accordance with the derivational approach, that the dative construction is like the PP-construction, the difference being the incorporation of the prepositional head, as in (37).

(37)   *init*P
              /   \

---
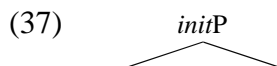
[16] The presence of the *Res*P projection that Ramchand postulates is not obvious to us; it appears to be required by very hypothesis-internal reasons. We will keep it in the structure, but it is important to notice that the level of complexity in the verbal decomposition does not substantially alter our basic proposal, insofar "the book" is invariably maintained as the undergoer of the process.

Sara

init
give+to

*proc*P

the book

proc
<give+to>

*res*P

<the book>

res
<to>

PP

P
<to>

DP

Mateo
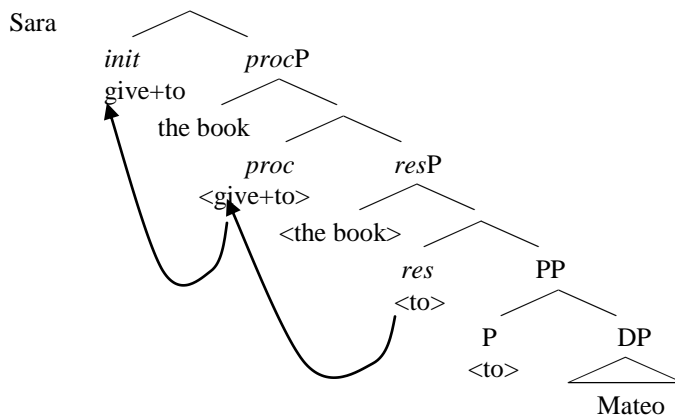
In both the PP-construction (36) and the dative one in (37), the specifier of *init*P, 'Sara', is interpreted as the initiator of the complex event; 'the book' is both the undergoer of the process (by virtue of being interpreted in the Spec-of-*proc*P) and the resultee (since it occupies the Specifier position of *res*P), and the DP 'Mateo' is uniformly interpreted as the final point of the path defined by the preposition 'to'. Had it been a different prepositional element –say 'from' in (24), repeated here– in a language that allows incorporation of other prepositions (see sec. 2.2), its complement 'Maddi' would have been accordingly interpreted as the starting point of the path:
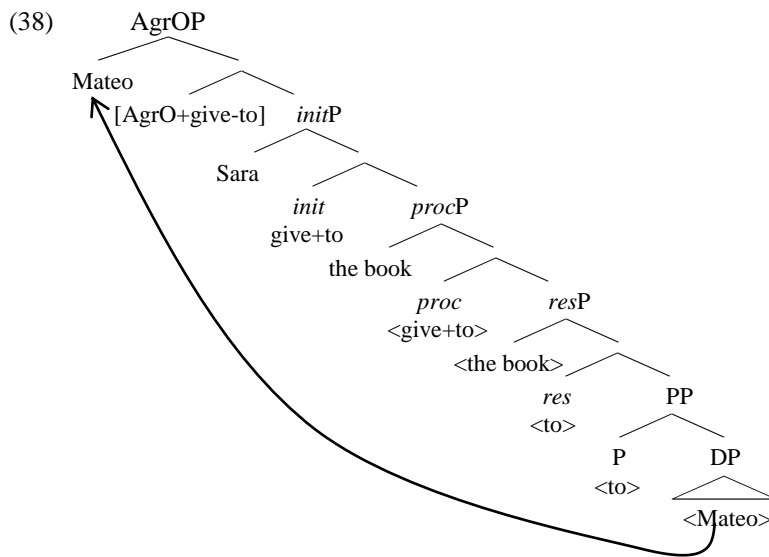
(24)   Nora-k   Maddi-ri   diska   bat   erosi dio
         Nora-ERG Maddi-DAT record one.ABS buy Aux (3DAT-3ERG)
         'Nora bought a record from/for Maddi'

The first consequence of this analysis is that the status of undergoer is unambiguously attributed to *the book* in (37). In addition to some nice empirical consequences to which we will return in the next section, this has the desired effect of eliminating Ramchand's stipulation concerning control by an implicit undergoer in the specifier of *Proc*P.

4.3. The Effects of P-incorporation

Motivated by the incorporation of the prepositional head in (37), the derivations of the PP-construction and the dative construction differ from this point on. This incorporation is the source of the structural and Case/agreement particularities of the dative construction: once incorporated, P ceases to assign Case to its complement. The

complex verbal head targets the complement of the preposition for agreement purposes:[17]

(38)

```
            AgrOP
         ___/  \___
      Mateo      ___/\___
           [AgrO+give-to]   initP
                         ___/  \___
                      Sara      ___/\___
                            init      procP
                          give+to  ___/  \___
                                the book   ___/\___
                                      proc      resP
                                   <give+to> ___/  \___
                                        <the book>  ___/\___
                                              res      PP
                                             <to>   ___/\___
                                                   P      DP
                                                 <to>   /\
                                                     <Mateo>
```

The presence of *the book* in the specifier of *ProcP* does not create an intervention effect for this movement because *the book* lacks the necessary features to raise. O&R (2002, 2007) argue that object agreement is restricted to a certain set of objects. In particular, third person objects in languages like English or Spanish do not qualify as candidates to raise to object agreement positions (see sec. 5.3). This analysis goes against the generally assumed uniformity of the Case and agreement system. In our view, this is just an unmotivated residue of the P&P model often resorted to but more often ignored, not only in incorporation contexts (see Baker's 1988 account in terms of the Visibility Condition), but also in complex predicate formation, and even in regular transitive constructions (O&R in progress).[18]

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[17] We make use of AgroP as a cover term for the projection where objective Case/agreement is checked. It is irrelevant for us whether that projection is *v*P, reconsidered here as *init*P, or a higher functional projection. Notice, however, that that position cannot be a dedicated applicative projection, à la Pylkkännen (2002), since it must be the same position regular objects move to when Case-requirements make them so; it cannot have the aspectual and thematic properties Borer's (2005) or Kratzer's (1996) proposals attribute to it either, since together with Ramchand (2008), we propose a full division of labor between thematic relations and Case (see O&R in progress for a fully developed proposal on agreement and Case).

[18] That objects in, say, English do not check accusative case has lately become a common place in the literature. For instance, Bošković (2002, 2007) suggests that they receive inherent case and do not have to move to the object agreement position in either regular transitive constructions or DOCs. In the context of a more general discussion on Case and agreement, in O&R (in progress) we extensively argue that the "inherent case" approach is both empirically

Summarizing, we maintain a unified analysis of dative and PP constructions at the level of argument structure (what Ramchand calls the "first-phase"), while deriving the structural and Case differences as a consequence of the incorporation of P and its subsequent modification of Case relations. In the PP-construction, the undergoer and the Case triggering element is the same, and it is higher structurally than the complement of the PP. Consequently, the construction behaves uniformly with respect to all possible structural contexts. By contrast, in the dative construction, "objecthood" dissociates structurally: the properties involving thematic configurations target the theme (the undergoer) of the construction, while all properties related to Case or pure c-command relations target the argument in the verbal agreement position, the applied DP, as we will see next.

5. Structural differences between Dative Constructions and PP-constructions revisited

One of the most obvious advantages of our approach, both with respect to classical transformational approaches and Ramchand-type analyses, is that it can account in a neat way for the "mixed" behavior of the applied and the second object in dative construction with regard to "direct object"-hood, without the need for any stipulative move, since it completely separates the sphere of Case relations from the domain of argument structure.
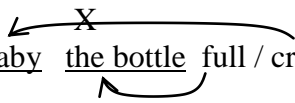
5.1. Argument Structure (undergoer)

The general observation that the second object in dative constructions may be the target of secondary predication is not at all surprising in our account, since that element is the theme (the undergoer) in both the dative construction and the *PP*-construction. On the other hand, insofar Williams's (1980) generalization concerning the unavailability for secondary predication of applied arguments is correct (see sec. 3.2.1), the parallel behavior also follows from our proposal, since at any point in the derivation the applied element is the undergoer.

and theoretically inadequate (see also section 5.3.2 below), but Bošković's difference between regular objects and ECM ones would be all we need for our explanation of dative constructions to work.

(39) a.   Peter gave the bottle to the baby full / crying

      b.   Peter gave the baby   the bottle full / crying

Even more interestingly, in languages like Slovenian where SP is possible on the complement of Prepositional Phrases (see examples (31)-(32)), we correctly predict that it is also possible in dative constructions, since the applied object has merged as the complement of the prepositional element that will eventually trigger incorporation.

Similarly, other contexts that seem to show some type of sensitivity to the argument properties of the participants also behave in accordance with what we predict. Thus, it is well known that dative constructions are barred from nominalization (40) and compound formation (41):

(40) a.   The giving of the gifts to the homeless
      b.   * The giving of the homeless (of) gifts

(41) a.   Secret-telling (to spies), book-reading (to children)
      b.   * Spy-telling (of secrets), *children-reading (of books)

The thematic explanation of these restrictions is based on the widespread observation that only the element that bears the THEME relation with the verbal head may be realized in synthetic compounding and as the complement of nominalizations. Whatever the implementation of this idea is, if the generalization is correct, our analysis predicts the right distribution of facts, given that the applied argument does not satisfy that requirement.

5.2. *Pure structural configurations (after Case)*
As is well known, Barss & Lasnik (1986) showed that the internal arguments of PP-constructions and dative constructions exhibit reverse c-command relations. They exemplify this hierarchical relation with regard to various phenomena, including anaphora binding, variable binding, weak-crossover, superiority, reciprocals, and negative polarity items. The paradigm in (42) illustrates the point in the case of anaphora binding:

(42) a.   I sent every check$_i$ to its$_i$ owner

       b.   *   I sent his$_i$ paycheck to every worker$_i$

       c.   I gave every worker$_i$ his$_i$ paycheck

       d.   *   I gave its$_i$ owner every paycheck$_i$

These configurational patterns are conspicuous and constitute one of the cases where base-generation approaches generally deal with the observed facts better than standard derivational ones.[19] However, our approach accounts for the facts in a straightforward way, since the hierarchical order of the two arguments is the reverse in the two constructions. In the PP-construction, the undergoer "every check" in the specifier of *Proc*P ends up higher than the goal 'its owner', in its base-generated position in the complement of the prepositional element. In dative constructions, the goal, 'every worker' in the object-agreement position is higher than the theme, 'his paycheck', which stays in the specifier of *Proc*P.[20]

5.3. Agreement relations and the Object Agreement Constraint

As mentioned in section 4, O&R (2002, 2007) argue that 3rd person objects do not move to a Case position, making applied object raising to AGRO position feasible. In those works we also present extensive evidence for other contexts where the object does move to the Case position, blocking the dative construction derivation because of the Object Agreement Constraint, formulated as in (43) (from O&R 2007:335):

(43)   *Object agreement Constraint (OAC)*: if the verbal complex encodes object agreement, no other argument can be licensed through verbal agreement.

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[19] Baker (2008: 94), for instance, changes his original position (see his solid and inspiring arguments in Baker 1996) to the proposal that the goal is base-generated over the theme, although he wisely leaves a door open to further retreat (see his footnote 24). The main motivation for this move is based, we believe, on the difficulty to deal with various agreement-patterns and Barss & Lasnik-type effects.

[20] It has to be noted that whenever P incorporation is not followed by dative shift, the c-command asymmetries do not arise, supporting the view that it is P incorporation what characterize DOC formation (see Romero 1997 for discussion):

(i)   Puso cada$_i$ número en su$_i$ taquilla

        Put   each number in its box-office

        "He put each number in its box-office"

(ii) *   Le   puso su$_i$ número a cada$_i$ taquilla

        CL-3DAT put its number to each box-office

Given (43), when some element other than the applied object must raise to AGRO, a conflict arises and the derivation crashes. This accounts for a whole set of contexts where dative constructions are impossible.

5.3.1. Classical *me-lui* and Person Case effects.

The most popular case of such a conflict is the set of phenomena covered under the term Person-Case Constraint (PCC; Bonet 1993). This phenomenon arises in the agreement and clitic clusters of dative constructions when a dative argument combines with a first or second person object (examples from Basque):

(44) Zuk   etsaiari   misil-a   saldu diozu
      You-ERG enemy-DAT missile-ABS sell Aux([3ABS]-3DAT-2ERG)
      'You sold the missile to the enemy'

(45) a. * Zuk   etsaia-ri   ni   saldu naiozu
             You-ERG enemy-DAT me.ABS sell   Aux(1ABS-3DAT-2ERG)
             'You sold me to the enemy'
      b. * Etsaiak   zuri   ni   saldu naizu
             Enemy- ERG you-DAT me-ABS   sell Aux(1ABS-2DAT-3ERG)
             'The enemy sold me to you'

O&R (2002, 2007) extend the paradigm to other contexts and argue that, unlike 3rd person objects, 1st, 2nd, and in many languages, animate 3rd person ones do move to the agreement position, which in the case of dative constructions yields an OAC violation (see also Anagnostopoulou 2003).

5.3.2. Lack of DOC in ECM Constructions.

Our analysis of dative constructions, together with O&R's (2007) OAC, extend to other contexts where overt object shift is induced. One such case is the ECM context. O&R (2002) and Boeckx & Hornstein (2003) have independently noticed the impossibility of combining ECM and DOCs. Consider the following paradigm (from O&R 2002):

(46) a.   I showed you the proof
      b.   I showed you that the defendants were guilty
      c.   I showed the defendants to be guilty
      d. * I showed you the defendants to be guilty

Examples (46a-b) show that the verb *show* is a Double Object-type verb; as (46b) illustrates, a clausal complement in DO position is compatible with an accusative indirect object. Example (46c) shows that the verb belongs to the ECM group as well. However, as illustrated in (46d), the combination of ECM and DOC is impossible. But given standard assumptions about the Case of ECM subjects, something additional must be said to prevent it.

Both O&R's (2002) and Boeckx & Hornstein's (2003) base their explanation in an asymmetry observed in the literature between regular objects and ECM ones. Bošković (1997, 2002), following previous work in the literature (see Lasnik 1999 and Bošković 2007 for extensive discussion and references; see also Chomsky's 1988 analysis in terms of feature inheritance at the *v*-V level), argues that ECM-objects are subject to obligatory object shift while regular objects do not overtly A-move to the object-agreement position unless they must go through the AgrO/v position in their way up to some higher position (e.g. Spec of C in wh-movement). The combination of Bošković's observation and our analysis of dative constructions predicts exactly the situation in (46) straightforwardly. As in the classical PCC contexts discussed in previous subsection, obligatory raising of the ECM-subject creates a configuration where more than one agreeing element appears, violating the OAC.

5.3.3. Restrictions on pronoun-agreement.

The same extends to account for the ungrammaticality of certain pronoun combinations in many languages. For instance, O&R (2007), based on work by Woolford (2000), argue that KiRimi pronoun agreement also shows OAC effects, even in contexts where animacy or $1^{st}/2^{nd}$ person is not involved. Thus, when the verb shows agreement with the applicative argument, the inanimate pronoun in object position cannot agree with the verb (example from Hualde 1989):

(47) * N -a -U -va -rUgh-I-aa   (*with either order of OMs)
        1SG-TNS-OM-OM-cook -APPL
        'I cooked them it'

5.4. Benefactives and the Syntax Of Arguments and Adjuncts

Consider, to finish, the existence of dative alternations with semantic modifiers, mainly with benefactive elements such as (28), repeated in (48).

(48)   a.   I bake a cake (for Mary)
        b.   I bake Mary a cake

From a structural point of view, the projection of a transitive VP with a benefactive PP is thus similar to the projection of a regular ditransitive verb with a PP-argument, since being an argument or an adjunct is not a base-configuration property, but part of the construction process and the semantic interpretation of the final configuration. Consider the structure in (38) above: both the benefactive adjunct and the PP argument base-generate as a PP at the bottom of the structure.[21] Therefore, when the head of the PP is occupied by an applicative preposition the trigger for a dative constructions is created: benefactives enter into the dative construction simply because it is structurally possible and there is an appropriate applied preposition for this relation (see sect. 2.2 and Peterson 2007).

Summarizing, once we get to separate the sphere of Case relations and the domain of argument structure completely, our approach overcomes the main problem posed in classical transformational approaches to dative constructions and accounts in a neat way for the "mixed" behavior of the applied and the second objects in dative constructions with regard to "direct object"-hood.

6. Final Remarks

In this paper we have presented several arguments showing that the alternation exhibited by ditransitive and related structures cannot be explained in semantic terms. Alleged semantic effects vanish as soon as we consider the whole range of data (B&N, R-H&L), and whenever they persist it can be proved that they are independent of the semantics of the verb (see Brandt 2003 for an alternative), and, in particular,of the way the verb relates to its arguments. We have also argued that "compatible frame" approaches are subject to essentially the same problems insofar they are also semantically conditioned.

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[21] Observe that in constructivist models argument mapping is not a lexical, but a syntactic issue. Consequently, the argument-adjunct distinction cannot be established *a priori*, but after the derivation has taken place.

As an alternative, we have proposed a derivational approach where, once they are projected, arguments can follow different derivation paths due to computational reasons. DOC/ Dative/ Applicative constructions arise then as a side effect of P incorporation into V, a process that takes place overtly in some languages (see Peterson 2007). In that way, our analysis accounts for the structural effects associated to this alternation, as well as for the majority of the semantic, syntactic and morphological restrictions observed elsewhere. Furthermore, our analysis also provides the basic tools to explain some interesting asymmetries between the alternating structures in a natural way. Among them, why DOC idioms may be used in *to*-constructions while the reverse is not possible, or why the DOC is much more restricted than the PP-construction with regard to the effects associated to the animacy constraint or the Object Agreement Constraint (the Person-Case Constraint and its extensions).

Many issues remain to be explored, among them questions related to freezing scope effects in dative alternations, backward binding, passives and unaccusatives, etc. However, the general lines of the proposed approach seem to be on the right track. Furthermore, once the analysis for this alternation is properly framed, its precise implementation in different languages opens a new way to explore many topics such as the status of clitics (O&R 2009), the nature of agreement relations (O&R, in progress) and binding (Bhatt & Šimik 2009), among others.

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