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 Preposition (applicative) incorporation, usually followed by dative shift. We also extend the analyses to Dative (Clitic) Constructions (D(C)Cs) 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 applicative contexts.

The paper is organized as follows. In section 2 we extensively argue against analysis that postulate two different base structures, one for the PP construction (e.g. English *to* constrution) 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 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 2008) and in the constructionalist 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 constructionalist implementation of the classical derivational approach to dative. We then discuss in section 5 how our theory derives the multiple structural differences between applicative

constructions and *to*-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 Costructions (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). It must be observed, however, that most arguments presented in the paper are indepedent of this extension and would equally apply if we considered DOCs as genuinely different constructions. 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, Krifka 2004, Harley 2002, Pylkkänen 2002, among many others), propose two different syntactic structures for the *to*-construction in (1a) and the DOC 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):

- (2) a. $\exists e \exists e' [AGENT(e, Mary) \land THEME(e, book) \land CAUSE(e, e') \land MOVE(e') \land THEME(e', book) \land GOAL(e', Peter)$
- b. $\exists e \exists s \; [\text{AGENT}(e, Mary) \land \text{THEME}\,(e, book) \land \text{CAUSE}\,(e, s) \land s \text{: Have} \ (Peter, book)$

The main difference in the interpretation of the two constructions would be that while the indirect internal argument in the *to*-construction has a salient directional meaning (MOVE (e') in (2a)), the relation between the two arguments in the DOC rather involves a "transfer of possession" relation (HAVE (Peter, book) in (2b)).

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 (2003), R-H&L and O&R (2002, 2007), we show that the syntax of idiomatic expressions, inference patterns and possession restrictions, 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 DOCs postulated in (2b) would run into serious problems when considered in connection with other properties of the constructions involved.

2.1. One meaning \rightarrow two syntactic structures

Concerning the semantic differences between DOCs and *to*-constructions reported in the literature, R-H&L observe that the "caused motion" meaning linked to the PP variant 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 (although not entailed) in to-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 DOCs, contra expectations in the polysemy approach. In the next subsections we briefly review these arguments.

2.1.1. *Is there a path?*

The first cluster of arguments focus 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 DOC and the *to* variant.

- **2.1.1.1. Paths, where?** Only-caused-possesion (OCP) verbs, in contrast to also-caused-motion (ACM) verbs, cannot be questioned by 'where' (Levinson 2005):
- (3) a. *Where did you give the ball?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.

- **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 possesion 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 (6).
- (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 the ball **all the way/halfway** to Bill.

As shown in (7) and (8), none of this options is available for OCP verbs.

- (7) a. *Josie gave/handed the ball **from** Marla (to Bill).
 - b. *Fred gave/handed the ball under/behind/over Molly.
 - c. *Sam gave/handed the ball **off** the shelf/**out** of the basket.
 - d. *Jill gave/handed the ball at Bob.
- (8) *Susan gave the ball all the way/halfway to Bill.

2.1.2. Inference patterns

Proponents of the polysemy approach argue that the applicative 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 (9). On the other hand, verbs of future having (*owe*, *offer*, *promise*, etc) fail to entail it in both the DOC and the *to*-construction (10). Thus, with some predicates successful transfer is not an entailment but an implicature governed by pragamatic factors, and with others it is lexically encoded, independently of the event schema associated to each syntactic variant.

- (9) 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.
- (10) a. Max offered help to the victims, but they refused his offer.
 - b. Max offered the victims help, but they refused his offer.

2.1.3. 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 DOC is the alleged only option, it is subject to the heaviness of the goal argument (Snyder, 2003; B&N; R-H&L).

- **2.1.3.1. 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 DOC (11).
- (11) 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 *to* construction (12) *conveying the very same meaning*.

- (12) Nixon's behavior gave an idea for a book to every journalist living in NY city in the 1970s.
- **2.1.3.2. Idiomatic expressions.** B&N and R-H&L have shown that, contrary to what is generally claimed, idioms that are typically associated to the DOC may also appear in the *to* construction (13) retaining its idiomatic meaning, and showing that this restriction, often discussed in the literature as an argument for the polysemy approach, is also illusory.
- (13) 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 organise [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
- **2.1.3.3. 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-ocurrence 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 DOC or the *to*-constructions themselves. From a

crosslinguistic perspective this was an obvious fact from the begining, obscured by the relatively low productivity of this construction in English.³

2.1.4. Integral relations

Given that the main arguments proposed in the literature to justify the polysemy approach have been rejected, 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 applicative constructions (Bosque & Masullo 1989, Romero & Moreno Quibén 2000). It has been observed that in cases like the ones in (14)-(15), the applicative construction has a somehow more restricted interpretation than its PP-counterpart:

- (14) 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)"
- (15) 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, (14a) 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, (15b), the sentence is ungrammatical. This assymetry might suggest a different syntactic source for each construction. However, as interesting as it may be, this property is not structurally associated to the DC. First, Johnson (1991)

already observed that this integral interpretation also appears in other contexts such as in the nominal construction (see also Castillo 1998): 4

- (16) a. las patas de la mesa the legs of the table
 - b. la rana de la mesa the frog of the table
- (17) a. sus patas its legs
 - b. *su rana its frog

Furthermore, this construction may also be observed in bare noun complements in Spanish (18), from Romero & Moreno Quibén, 2001, suggesting that the integral relation does not directly bear on the semantic differences between the dative and the PP-construction:

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

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 DC 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 DC 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 DOCs is interpreted as a recipient/goal or as a benefactive, in other languages its interpretation extends from goal and benefactive to locative, allative, comitative, circumstantial or instrumental (Peterson 2007; ch. 3). With some restrictions, more or less the same variability can be observed in DCs 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). Thus, dative DPs in Basque can be interpreted as benefactive (19a), source (19b) or locative (19c), among other options, depending on the predicate and the context (see Arregi 2003 for extensive discussion):

- (19) a. Miren-ek aitona -ri bazkari-a prestatu dio Mary-ERG grandpa-DAT lunch -DET prepare Aux(3sg_{DAT}-3sg_{ERG}) "Mary prepared lunch for grandpa"
 - b. Miren-ek aitona-ri liburu-a hartu dio Mary-ERG grandpa-DAT book-DET take Aux (3sg_{DAT}-3sg_{ERG}) "Mary took the book from grandpa"
 - c. Miren-ek kotxea-ri gasolina jarri dio Mary-ERG car -DAT gas-DET put-on Aux(3sg_{DAT}-3sg_{ERG}) "Mary put gas on the car"

Like DOCs in English, the dative examples in (20) have PP-counterparts, each of them with a semantically dedicated postpositional element:

- (20)a. Miren-ek aitona-rentzat bazkari-a prestatu du Mary-ERG grandpa-FOR lunch -DET prepare Aux(3sg_{ERG}) "Mary prepared lunch for grandpa"
 - b. Miren-ek aitona-rengandik liburu-a hartu du Mary-ERG grandpa-FROM book-DET take Aux (3sg_{ERG}) "Mary took the book from grandpa"
 - c. Miren-ek kotxe-a-n gasolina jarri dio Mary-ERG car-DET-ON gas -DET put-on $Aux(3sg_{ERG})$ "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 DCs would be suspiciously close to its PP-construction correlate. This situation becomes dramatic when we look at ambiguous sentences. Consider the following Basque example:

(21) Norak Maddiri diska bat erosi dio Nora-ERG Maddi-DAT record one.ABS buy Aux (3sg_{DAT}-3sg_{ERG}) 'Nora bought a record from/for Maddi'

As pointed out in the glosse, the dative argument in (21) 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 (22a-b):

- (22) a. Norak diska bat erosi du Maddirentz Nora-erg record one.abs buy Aux (3sgerg) Maddi-for 'Nora bought a record for Maddi'
 - Norak diska bat erosi du Maddirengandik Nora-erg record one.abs buy Aux (-3sgerg) 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 alledged possession relation, but at the same time capturing the meaning expressed by each of the prepositions, roughly as in (23):

(23) a. $\exists e \exists s [BUY (e) \land AGENT(e, Nora) \land THEME (e, record) \land CAUSE (e, s) \land s: HAVE (Maddi, record)$

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

It is not clear that the representation in (23a) captures the basic benefactive relation hold by the dative *Maddiri* in the sentence, and it is more than clear that (23b) 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 (23) have the funny property of attributing to the semantic representation of the same verb a final state of possession in one case —"x (benefactive) *have* y", in (23a)— and a final state of lack of possession in the other —the "x (source) not-have y" in (23b).

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. 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.⁶

2.3. Conclusions

Summarizing our results so far, we have argued that the arguments to postulate a polysemy approach to DOC/DC 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 encyclopaedic content; if, say, the lexical content of *give* is compatible with the interpretation range of both the DOC 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 (24) are disallowed in DOCs.

(24) 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 DOC (INTENDED POSSESSOR). As we have seen, crosslinguistically this is not the right kind of explanation, since, as they point out, applicative 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 (25).

(25) a. I bake a cake (for Mary)

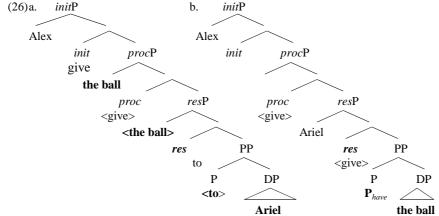
b. I bake Mary a cake

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 applicative frame may encode not only different, but even contradictory meanings.

3.2. ... in a Constructionalist Approach

Ramchand's (2008) constructionalist hypothesis is by definition not subject to the benefactive augmentation problem we observed with regard to R-H&L's proposal. However, her account in (26) has all the ingredients of a polysemy analysis, maintaining the basic correlation between syntactic structure and semantic interpretation that we saw before.



In fact, she explicitely 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 DOCs 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 (27) 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*.

- (27) 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 (high applicative languages). Although the evidence she presents is rather murky, other authors such as Marušiž, Marvin & Žaucer (2004) present more compealing data from Slovenian showing that in this language secondary predication is indeed available for applied arguments:

(28) Peter je dal Meti_i piškote že vsej polomljeni_i PeterNOM AUX gave MetaDAT biscuits ACC already allDAT brokenDAT 'Peter gave Meta_i, some biscuits all broken_i (=back-sore_i)'

To accomodate 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 illustrateed in (29).

- (29) a. Včeraj smo na Vida_i še čisto pijanega_i naleteli na Prešercu yesterday AUX onto VidaACC still completely drunkACC 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
 PeterNOM AUX gave bookACC on tableLOC 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. Marušiž, 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 DCs, and with the preposition *con* ('with'):

- (30) Se fue con las manos vacías y volvió con ellas llenas Cl_{REF} went. $3s_{NOM}$ with the hands empty and came. $3s_{NOM}$ with them full "He left with his hands empty and came back with them full"
- (31) [']Le puso la inyeccion sano Cl3sDat give the injection healthy "she gave him an injection while he was healthy"⁸

The range of acceptable predicates in (31) is restricted to those 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 DOCs (see O&R 2002, 2007), clearly indicate that the preposition is playing a major role in the derivation of the DOC/DC.⁹

3.2.2. The nature of the undergoer in Dative Constructions

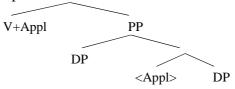
A second problem Ramchand's treatment of DOCs and applicative constructions faces is its failure to account for the "theme properties" of the second object. As just said, her analysis accounts for the fact that no matter how many direct object properties are satisfied by the applied object: it is never 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 our added ellipse in (26) highlights, the specifier position of *ProcP* 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 DOCs, Ramchand is forced to stipulate that there is an implicit undergoer in the specifier of ProcP 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

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 which triggers in turn a whole set of Case and agreement related properties.¹⁰

(32) Applicative-incorporation SCHEMA:



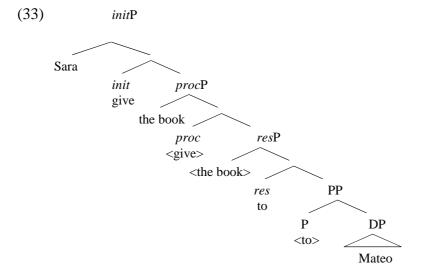
In a 2006 manuscript version of her book, Ramchand (2008) argues that a derivational analysis goes directly against the spirit of a constructionalist view, which has no level of representation for argument structure. Contrary to this view (see also e.g. Pylkkännen 2002), we contend that the projectionist vs. constructionalist discussion is independent of the monosemy vs. polysemy issue. Derivational approaches, starting with Larson's (1988), has often appealed to the PP-construction as the "source" or "primary" one, but the DOC 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 decission, 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 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 constructionalist approach to argument structure.

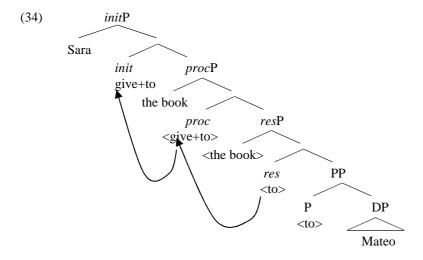
4.2. The Argument-Structure of Dative Constructions and the "Mixed"

Properties of first and second objects

For the sake of the discussion, let us assume Ramchand's structure for the *to*-construction as the starting point. In (33), 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'.¹¹



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 DOC/DC is like the *to*-construction, the difference being the incorporation of the applicative head, as in (34).



In both the PP-construction (33) and the dative one in (34), 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 (21)– 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:

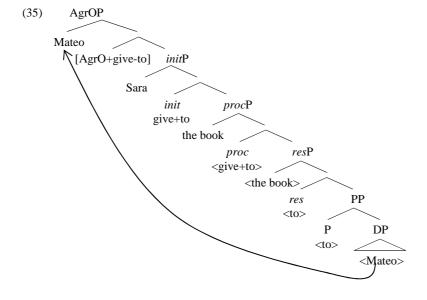
(21) Norak Maddiri diska bat erosi dio

Nora-ERG Maddi-DAT record one. ABS buy Aux $(3sg_{DAT}-3sg_{ERG})$ '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 (34). 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 the Applicative-incorporation

Motivated by the incorporation of the applicative head in (34), the derivations of the *to*-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 applicative for agreement purposes:¹²



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 a 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).¹³

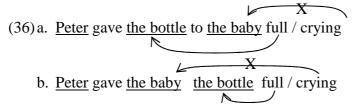
Summarizing, we maintain a unified analysis of dative and PP constructions at the level of argument structure (what Ramchand calls the "first-phase"), while deriving the structural and Case differences as a consequence of the incorporation of P and its subsequent modification of Case relations. In the *to*-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 PPconstructions 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 DC 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 applicative construction and the *PP*-construction. On the other hand, insofar Williams (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.



Even more interestingly, in languages like Slovenian where SP is possible on the complement of Prepositional Phrases (see examples (28)-(29)), we

correctly predict that it is also possible in DCs, 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 (37) and compound formation (38):

- (37) a. The giving of the gifts to the homeless
 - b. * The giving of the homeless (of) gifts
- (38) 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 DOCs 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 (39) illustrates the point in the case of anaphora binding:

- (39) a. I sent every check_i to its_i owner
 - b. *I sent his; paycheck to every worker;
 - c. I gave every worker, his, paycheck
 - d. *I gave its; owner every paycheck;

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. 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 *to*-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 applicative 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. However, our approach accounts for the prepositional element.

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 DC derivation because of the Object Agreement Constraint, formulated as in (40) (from O&R 2007:335):

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

Given (40), 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:
- (41) Zuk etsaiari misila saldu d-Ø -i -o -zu You-ERG enemy-DAT missile-ABS sell PRES-3ABS-Aux-3DAT-2ERG "You sold the missile to the enemy"
- (42) a. * Zuk etsaiari ni saldu na -i -o -zu You-ERG enemy-DAT me-ABS sell 1ABS-Aux-3DAT-2ERG "You sold me to the enemy"
 - b. * Etsaiak zuri ni saldu na -i -zu -∅ Enemy- ERG you-DAT me-ABS sell 1ABS-Aux-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):

- (43) 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

Example (43a-b) shows that the verb *show* is a Double Object-type verb; as (43b) illustrates, a clausal complement in DO position is compatible with an accusative indirect object. Example (43c) shows that the verb belongs to the ECM group as well. However, as illustrated in (43d), the combination of ECM and DOC is impossible. However, given standard assumptions about the Case of ECM subjects, nothing should 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 Bošković 2007 for extensive discussion and references) 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 DOCs predicts exactly the situation in (43) 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 1st/2nd 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):

5.4. Benefactives and the Syntax Of Arguments and Adjuncts

Consider, to finish, the existence of dative alternations with semantic adjuncts, mainly with benefactive elements such as (25), repeated here.

- (25) 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. Therefore, when the head of the PP is occupied by an applicative preposition the trigger for a DOC/DC is created. Since the adjunct status is determined post-syntactically, benefactives enter into the applicative construction simply because it is structurally possible.

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.

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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 "applied argument". We will also use the term "PP-construction" to unify pre- and post-positional phrases such as English *to*-constructions.

² 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.

³ 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 idoms may only appear in the PP variant (see sec. 3.1), or the fact that heavy NP shift may only take place in PP constructions (Oehrle, 1990).

⁴ 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

⁵ 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.

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).

- (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-3nom 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 polysemmy analysis for the case of English DOCs only 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..

⁷ 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.

- ⁸ Note that this sentence, slightly modified for pragmatic reasons, is also marginally acceptable in its PP variant:
- (i) ?puso la inyección al paciente curado she gave an injection to the patient once cured.

⁹ 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, and the fact that there are languages that simultaneously behave as high and low applicative.

¹⁰ 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.

¹¹ The presence of the *ResP* projection that Ramchand postulates is not obvious to us; it appears to be required by purely linguistic engeniering purposes. 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 maintain as the undergoer of the process.

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 ν P, reconsidered here as initP, 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).

¹³ 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 and theoretically inadequate (see also section 5.3..2 below), but that would be all we need for our explanation of dative constructions to work.

¹⁴ 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.

¹⁵ 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, número en su, taquilla
- (ii) * Le puso su_i número a cada_i taquilla]