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M. Cristina Cuervo

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***Abstract**: This work investigates dative arguments within a theory of applicative arguments. The focus is on what dative arguments have in common as a class—well beyond the most typical datives in ditransitive constructions—and as subcases of applied arguments, as found in both languages with a rich case system, and languages without overt case marking.*

*A typology of applicative constructions that directly associates with dative arguments is developed. The various subtypes of applicatives are derived from a restricted set of structural properties and syntactic-semantic features (the type of complement of the Appl head, the dynamic/stative nature of its complement, and the presence/absence of an external argument, and of a verbal head above the applicative).*

*The various interpretations of applied arguments (e.g., possessors, bene/malefactives, recipients, experiencers, affected, causees) are configurationally derived, and do not require encoding as part of the denotation of the applicative head beyond the traditional, minimal notion of Appl as introducing an argument "oriented" towards its complement. This richness of interpretations sets applied arguments apart from the narrow range of interpretations for arguments of v/Voice, on the one hand, and the practically unconstrained interpretations of arguments of lexical verbs/-roots, on the other.*

***Keywords**: dative arguments, applicatives, experiencers, possessors*

# 1 Datives and applicatives

## 1.1 Introduction

Dative arguments appear in many languages as the third morphological case, after nominative and accusative, or ergative and absolutive. Although the most common role of datives seems to be that of indirect object with transitive verbs—typically as recipients—arguments in dative case can combine with all classes of predicates, and can express sources, experiencers, possessors, benefactives, malefactives, causees, locations, affectees, non-volitional agents or dispositionals. Both inter- and intra-linguistically a dative argument can alternate with accusative, genitive, and nominative DPs, or with prepositional phrases.

It is possible to consider that such variety of meanings and constructions prevents us from finding a common core, and that dative case can be unpredictable, or a default case. There has been, however, a lot of work seeking unification either at the semantic or the syntactic levels. Sometimes the unification has proposed that all true datives are extensions of prototypical indirect objects in ditransitive constructions.

In this work I present an approach to the investigation of dative arguments within a theory of applicative arguments. In order to develop this approach, I start with the hypothesis that dative arguments are applicative arguments, and focus on the syntactic context into which an applicative head is merged, with particular attention to certain properties of the complement and the head that selects the applicative phrase. This is done for two reasons:

- the belief that both the complement structure and the structure immediately above the applicative are relevant for a typology of applicative constructions that accounts for their syntax and provides a base on which to develop a systematic account of their crosslinguistic distribution.
- the belief that dative/applicative arguments—like subjects and unlike direct objects—have structural meanings; that is, that their interpretation is predictable (beyond certain idiosyncrasies related to the meaning of verbal roots) on the basis of their structural position and properties of the licensing head.

By studying dative structures as applicatives—that is, employing the theoretical, empirical and methodological tools employed for the study of applicative

constructions—it is possible to explore generalizations and theoretical proposals that can abstract away from case marking, word order and other language-particular morphosyntactic properties.

Another crucial issue that applicatives bring to the forefront is the head that licenses a dative argument, questioning the assumption that datives, as internal arguments, are licensed by the verb. In a language like Spanish, for instance, in which a dative argument can appear with practically any kind of verbal predicate (**Cuervo2003**, see §?? below), an approach to licensing of datives on the basis of lexical properties of verbs is not tenable. The study of datives as applicatives provides a framework which can potentially capture all datives as a class, beyond their shared morphology, in terms of the type of licensing, while allowing for restricted variation in terms of structural position and thematic interpretation.

What emerges, then, is a broader approach to the study of dative constructions which, while it takes case seriously and ponders what all dative arguments have in common (beyond the most typical datives in ditransitive constructions), also disregards case and considers what subsets of dative arguments have in common with arguably similar constructions marked by various cases (Finnish) or not marked by case at all (Bantu).

Studying datives as applicatives places the investigation in the context of an articulated theory of argument licensing heads, which is an independently needed component in a general theory of syntax.

I discuss below various parallels between applicatives and datives, and, in §??, potential counterarguments to analyzing datives as applicatives. A typology of applicative constructions that directly associates with dative arguments in many languages is developed in §?? In §?? I illustrate how the various subtypes of applicatives (and datives) are derived from a restricted set of structural properties and from syntactic-semantic features of the applicative head. The various interpretations of applied arguments are configurationally derived, and do not require encoding as part of the denotation of the applicative head. Dative experiencers, in §??, are presented in a case study on the domains which contribute to the morphosyntactic properties and interpretation of these dative-applicatives. Conclusions are presented in §??

## • – 1.2 Datives as applicatives

Although not all applicatives are datives and not all datives are applicatives, both involve the notion of an argument distinct from canonical or 'core' arguments (i.e., subjects and objects), which nevertheless exhibit characteristics of

"regular" arguments.[1] Intra- and inter-linguistically, both applicatives and datives are characterized by morphosyntactic properties that span various constructions and interpretations.

When we ask the central question of what type of argument dative arguments are, we note that they can be similar to objects in properties of word order, case, and cliticization. They also can be similar to subjects in their interpretation being quite regular and structurally determined, mostly falling within the realm of possession, location/direction and affectedness.[2]

In their syntactic behaviour and interpretation, dative arguments display strong parallels with applicatives, which are argued to be licensed as specifiers of a specialized functional head, like subjects, but usually pattern with objects in case licensing, object agreement, and movement in passive.

Datives also seem to occupy a category between direct objects and arguments of adpositions. That is exactly what applicatives seem to be as well (at least morphologically): the (direct) objects of a derived verb, or of a predicate which includes an incorporated adposition..

Another property common to datives and applicatives is their ability to participate in varied argument structures under the same guise, and to receive a wide range of thematic interpretations. As such, the challenge of providing a unified account of datives and applicatives includes developing an analysis rich enough to account for this latitude, while constrained enough to derive their particular interpretations in particular constructions, as well as the attested cross-linguistic variation.

Much of the work on applicatives in the last thirty years has involved teasing apart different types of applicatives and deriving their interpretations; distinguishing applied objects from prepositional objects (as in studies of the dative alternation); establishing how observed syntactic behaviour (such as word order, movement, scope, etc.) derives from structural properties or, alternatively, from language-particular morphosyntactic coding; determining the source of the ap-

[1] As a reviewer points out, applied arguments are characterized as 'non-core' arguments as opposed to canonical subjects and objects. Later, I will discuss the distinction of core/non-core as a distinction between selected arguments (core) and extra, non-selected arguments (non-core), assumed in other work.

[2] I am being very general here. This is not a comprehensive list (the notions of accidental and non-volitional causers and doers, and causees are relevant for many languages, such as Russian, Korean, Spanish, German, Pashto, etc.) and relatively vague notions like these overlap and have various nuances. Issues of interpretations and how they can be derived are discussed in §?? and §?? See also Fábregas & Marín (this volume), Franco & Lorusso (this volume), and Tsedryk (this volume) for (partial) unification of the semantics of dative arguments.

plied argument (e.g. is it an independent, specialized head, the result of preposition incorporation, a general transformational rule?). This type of work has also been done for dative arguments both within and outside an applicative framework.

Although there is no general agreement about their defining properties, applicatives have been identified across languages in spite of differences of approach and theoretical persuasion, differences in word order, in morphological marking on the head and the applied DP, in possible interpretations, and in availability with different types of verbs or constructions. In the spirit of **Svenonious2007**'s (**Svenonious2007**) work on adpositions, this suggests that applicatives must be a good way for language to do something (e.g., licensing an argument), and a good way of doing something differently (e.g., differently from subject licensors Voice/v, from object licensors Verb/root, and adpositions).

Although crosslinguistic variation in dative arguments might appear less dramatic than variation in applicatives, the general differences in word order, morphological marking on the verb and the argument, and availability and interpretation also apply to datives. It makes sense to ask of datives, as of applicatives, how much of the syntactic and semantic behaviour depends on properties of the licensing head, of the structural environment, of the argument itself, and how much is left to be determined by lexical, idiosyncratic properties of the verb, and knowledge of the world (For approaches quite different from, but still relevant to, those discussed here, see **Grimm2011**, **Maling2001**.). §**??** is an attempt to address this central question.

In preparation to addressing this question for datives as applicatives, I discuss some of the arguments that have been presented against taking such an approach.

## 2 Difficulties in equating datives and applicatives

The need for a theory of dative arguments that accounts for their licensing and interpretation in other than canonical ditransitive constructions is uncontroversial. What remains debatable (and this volume provides good examples of how this issue is alive) is whether such a theory should also account for so-called *canonical ditransitive* constructions.

A central issue in this debate is the contrast between core and non-core arguments, or arguments of the verb versus arguments of a functional head. If such a distinction is made between core and non-core datives, then, in principle, only non-core datives would be applicatives, since all applicatives are, under this definition, non-core.

Another argument for rejecting an applicative analysis of (some) datives is based on a comparison of dative arguments, either intra- or crosslinguistically. The idea is that if a certain type of dative argument differs in syntactic or semantic behaviour from another type of dative which is analyzed as an applicative, then some authors conclude that the contrasting dative cannot be an applicative as well. This is, schematically, the view in **BonehNash2012** for French datives, in **Tubino2012** for Spanish dative causees, **FolliHarley2006** for Italian benefactives and goals, and Cépeda & Cyrino, (this volume) for Portuguese datives.

Another counterargument to treating datives as applicatives arises when certain coding aspects of applicative constructions are taken as definitional, such as morphological exponence of argument and head. **Snyder1995**, for instance, contrasts double-object constructions—as in English— with dative constructions—as in Spanish— taking them to be different structures. Within Romance, whether the dative *a, pe* or *à* heads a prepositional phrase or signals a dative DP has also been part of the 'datives as applicatives' debates (Sheehan, this volume; see Calindro, this volume, for an analysis of diachronic change of ditransitives in Brazilian Portuguese). For **Polinsky2013**, overt morphological marking on the predicate is a crucial property of applicatives, which leads to negating applicative status to most dative constructions. As I have noted in previous work (**Cuervo2015a**), the identification of applicatives with a particular morphosyntactic coding, rather than with formal semantic or structural properties, has resulted in common but questionable claims that languages like English, German, Russian, Finnish, Japanese, Basque, Guaraní, Spanish, and Kiowa lack applicative constructions.

Dative arguments fail some diagnostics for applicatives based on certain syntactic asymmetries, and on alternation with prepositional constructions, as discussed in §**??** Finally, the interpretation of certain datives has also been suggested as a reason not to consider them applicatives, as in the case of agentive causees (**Tubino2012**) and experiencers. These semantic, morphological and syntactic difficulties are discussed in turn below.

### – 2.1 Core vs. non-core arguments

One difficulty in identifying dative arguments with applicatives has been the argued contrast among dative arguments between those that appear to be required arguments of the verb, and those that are not. Within Romance, for example, **Pujalte2009** distinguishes between datives with lexically ditransitive verbs such as Spanish *dar* 'give' and *enviar* 'send' from monotransitives such as *comprar* 'buy'; **BonehNash2012** contrast French *à*-datives in canonically ditransitive

'motion' verbs such as *envoyer* 'send' and *dire* 'say' with datives (clitics) associated with verbs such as *massacrer* 'destroy' or *vider* 'empty'. In these two works, the notion of 'core dative' comprises both a notion of 'thematic argument of the verb' and of an 'obligatory' argument DP.

This distinction, however, is problematic. On the one hand, the notion of thematic argument of the verb is vague at best if it is not tightly related to the requirement for the argument to be overtly expressed or some other exclusively syntactic behaviour.[3] With the exception of the verb *give*, which is practically a light verb, and some verbs of direct, physical transfer such as English *hand*, dative recipients can be omitted as easily with canonical ditransitives (**??**) as with monotransitives (**??**).

(1)

a. *Los empleados (le) enviaron la carta (a la directora).*
the employees sent the letter to the director
'The employees sent (the director) the letter'
b. *Il a dit la vérité (à Jean)*
He has said the truth to Jean
'He told the truth (to Jean)' (**BonehNash2012**)

(2)

a. *Los empleados (le) compraron un reloj (a la directora).*
the employees bought a watch to the director
'The employees bought (the director) a watch'
b. *Il a acheté des bonbons (à Jean).*
He has bought candy (for Jean)
'He bought (Jean) some candy'

Although the distinction between lexically ditransitive verbs and monotransitives might be syntactically relevant at some level, that does not mean that when a dative argument appears with a monotransitive the resulting construction must be different from that of a ditransitive like *enviar* 'send' or *poner* 'put'. This is standardly assumed for English: the structure attributed to double-objects related to so-called lexically ditransitive verbs (which take *to*-DPs in their PP variant, such as *send*) is also attributed to double-objects with monotransitives whose PP variant take *for*-DPs (such as *buy*).

[3] See Fernández **Alcalde2014** for further arguments against **Pujalte2009**'s (**Pujalte2009**) distinction between core and non-core datives.

There is an additional confusion intertwined in work that argues for an applicative analysis only of non-core datives. It is sometimes the case that differences in morphosyntactic properties have been observed between core and non-core datives. Noted differences concern the case of the applied argument, the exponence of the applicative head (null, or optionally or obligatorily overt), the (im)possibility of the dative to be expressed as a full DP in argument position,and so on. These differences, however, can be the result of there being different sub-types of applicatives within the same language rather than entailing that one argument is licensed by an applicative head, but the other is not (see **BonehNash2012**, and **Cuervo2003**, 2015b, **Diaconescu2004**, **Pineda2016**, **RobergeTroberg2009** for intra-linguistic morphosyntactic differences among dative/applied arguments)

The other class of dative arguments claimed to be selected, core arguments of the verb, are datives experiencers found with the *piacere*-class, famously analyzed as unaccusative double-object constructions by **BellettiRizzi1988**.[4] The 'core argument' label makes sense within an analysis like that of Belletti & Rizzi, who propose the two arguments of *piacere*-type verbs are internal arguments of the verb on a par with the internal arguments of canonical ditransitive constructions (double-object constructions). But the parallel between ditransitive constructions and dative experiencer constructions gets blurry when we go beyond the verb *piacere/gustar* 'like' itself and consider psych expressions (e.g. Spanish *dar miedo* 'give fear') and non-psych expressions (e.g. Spanish *quedar bien/mal* 'go well/badly with'), which cannot be easily analyzed as unaccusative dative experiencer–nominative theme (see **Cuervo2011**). The 'core' analysis of these dative experiencers also faces difficulty when predicates beyond *gustar* are considered: *interesar* 'interest', *molestar* 'bother' and *importar* 'matter' can all easily appear without a dative argument, in which case they merely ascribe a property to an entity, without restricting the ascription to a certain individual. The existence of adjectives with the same roots (*interesante* 'interesting', *molesto* 'bothersome', *importante* 'important') similarly suggests that the lexical content of the root does not require licensing of an experiencer argument (see §**??** for further discussion and an applicative analysis of these constructions).

### • – 2.2 Coding properties

Another difficulty in identifying datives as applicatives has been the belief that

[4] This class of psychological predicates corresponds to Belletti & Rizzi's Class III, which comprises verbs like Italian *piacere* and Spanish *gustar* which take a dative experiencer and a nominative theme. The dative argument typically appears preverbally, and the nominative DP after the verb.

because applicatives—even low applicatives in double object constructions—are hierarchically higher than the direct object, only languages in which the dative appears linearly before the direct object are languages with applicatives. Numerous studies, however, have shown that the relative word order between a theme and an applicative, or a dative and an accusative DP, is not always a reliable indication of underlying hierarchical asymmetries (Antonyuk, this volume; Cornilescu, this volume; **Cuervo2003**; **Demonte1995**; **MiyagawaTsujioka2004**; and see **McGinnis2018** for data and discussion).

Morphological marking on the argument DP has also been thought to indicate whether it is an applicative. On the one hand, in the tradition of Bantu studies, applicatives have no case marking. On the other hand, applicatives and double-object constructions have been proposed for languages in which two internal arguments appear with the same case (typically accusative), as argued for English and Korean. There also exist (unambiguously) high applicative constructions (that is, an argument applied to a vP, and therefore not double-objects in **Pylkkänen2008**'s (**Pylkkänen2008**) sense) in which both the applied and the direct object or causee have accusative case, as argued for Hiaki by **Harley2013**. An additional issue concerns the morphological shape of dative case and, potentially, the syntactic category of the dative (DP or PP), particularly in languages in which arguably dative marking is syncretic with an existing adposition, as in the case of Japanese *ni*, Hindi *ko* and Spanish, Catalan, Italian and French *a/à*.

This would seem to leave dative arguments (as well as arguments in other cases, such as allative, adhesive, etc.) as poor candidates for an applicative analysis. Morphological case, however, as arguably a post-syntactic phenomenon, can sometimes obscure underlying syntactic relations, such as hierarchical relations and licensing (**McGinnis2018**). Additionally, while languages can vary dramatically in their case systems, variation in argument structure is tightly constrained (**Marantz2013**, **WoodMarantz2017**, among others). Finally, dative arguments have been shown to behave as DPs rather than PPs, with dative markers such as Romance *a*/*à* more akin to a case marker or differential object marker than an adposition (see Calindro, this volume; **Pineda2016**; Sheehan, this volume).

With respect to morphological marking on the applicative head, for many authors, special marking on the verb is expected; as stated by **Polinsky2013**: "It is customary to restrict the designation *applicative* to those cases where the addition of an object is overtly marked on the predicate." This association dates back to **Carochi1645**'s (**Carochi1645**) original description of Nahuatl "applicative verbs" as "derived verbs", and has been central in Bantu studies. The form

of the applicative head, however, is not a definitional property. Applicatives can have more than one form, even in the same language, as is the case of Inuktitut, in which an applicative head can be a verbal affix or be null.[5] Applicative heads can be spelled out by morphology with person features, such as datives clitics in Romance, and verbal affixes in P'urhépecha (Moreno **Villamar2018**). They have been claimed to take the form of a *dative flag* in Basque (an affix preceding a dative agreement affix on the verb, which signals the presence of a dative argument; see Etxepare and Oyharçabal 2012 and cites within), or cliticized directional pronouns, such as *raa* 'to me/us' in Pashto (**Babrakzai1999**).

This brief discussion of morphological properties of applicative constructions across languages shows that there is a continuum of marking from head to the argument: from one extreme being a bound morpheme on the verb (Bantu) to a bound case morpheme on the applied argument (Finnish, Latin) on the other.[6] In the middle, and sometimes in combination, marking can be a verbal clitic (Spanish, Pashto), an adposition, or a case marker.

### 2.3 Syntactic properties

Some syntactic behaviour associated with certain applicative constructions is usually not found in dative constructions. This is particularly the case for datives in ditransitive constructions.

Low Applicatives in ditransitive constructions have been shown to be asymmetric applicatives: of the two internal arguments, only the applied argument shows a full range of object properties (**Pylkkänen2000**)[7]. For instance, a low applicative DP is expected to raise in passive, be extracted, require adjacency to the verb, trigger object agreement, and receive the same case as would a direct object of a monotransitive. However, this is not the behaviour of dative arguments in Romance, which typically do not become subjects nor get nominative case in passives, as direct objects do in both transitive and ditransitive constructions. This lack of direct object behaviour, however, can be attributed to particular proper-

[5] The variation between and overt and a null head can also be seen in French, and Catalan and certain varieties of Spanish, as argued by **Fournier2010** and **Pineda2016** respectively.

[6] Roberge & **Troberg2009** expect complementarity between marking on the head or the argument: "We assume that the productive morphological case-marking that existed in Latin made it possible for the [Appl] head to be devoid of overt morphological content."

[7] The association of low applicatives with asymmetric applicatives and high applicatives with symmetric ones—although it has been shown not to hold of several languages in which direct objects retained their object properties in applicative constructions—continues to be used as an argument against applicative analyses of (at least) Romance datives. See McGinnis (2004, 2008) for discussion.

ties of dative case in particular languages—such as dative being inherent case—which, in turn, interact with passives and movement.

In the case of high applicatives with transitive predicates (symmetric applicatives), object properties are expected to be exhibited by both the internal argument and the applied argument. Again, this is not the case in Romance, but the same reservations with respect to this reasoning for low applicatives apply to high applicative constructions.

Dative arguments in Romance and many other languages do perform on a par with DPs standardly analyzed as applicatives on other syntactic properties more directly related to structural position, such as binding, scope, and agreement (see Antonyuk, this volume; **BonehNash2017**; **Bruening2010**; **Cuervo2003**; **Demonte1995**; **Pineda2016**, among others).

On the basis of the arguments for studying datives as applicatives presented in §**??**, and having shown that the arguments against doing this are not compelling, I continue in the next sections to show that the analysis of applicatives directly sheds light on the analysis of dative arguments.

## 3 Types of datives; types of applicatives

In many languages, dative arguments are compatible with various types of predicates, from ditransitive activity verbs to anticausative change-of-state verbs, and psychological stative predicates. In previous work, I have proposed a classification of predicates that is relevant for a typology of applicatives, which can equally be applied to the study of dative arguments (see Figure **??**).

Figure 1: Subtypes of predicates as relevant for a typology of applicatives (**Cuervo2015a**)

The classification in Figure **??** predicts some of the contrasts among dative arguments in terms of subtypes of applicatives (such as affected datives with causative verbs versus recipient datives with non-causative transitives). The way the predicates are subdivided, however, does not directly parallel the typology proposed by Pylkkänen (2002, 2008)[8] and later enriched by **BonehNash2011**, **Cuervo2003**, 2010, **Kim2011**, **McGinnis2001**, 2008, **McGinnisGerdts2004**, **RobergeTroberg2009**, among others. Additionally, the classification based on predicate type does not

[8]From this point on, I cite **Pylkkänen2008**, but most issues discuss appeared first in **Pylkkänen2002**.

capture certain proposed implications or correlations among subtypes of applicatives. For instance, if a language allows dative/applicative possessors or recipients with unaccusatives, it also does with transitives, but the reverse does not necessarily hold, as in English. The classification cannot express the intra-linguistic correlation between having (or not having) datives with "lexically" causative verbs (v.g., *break, melt*), and (not) allowing for datives with anticausatives (see **Peterson2007** and **Cuervo2015a** for discussion).

What is needed is a classification based on structural properties directly relevant for the subtypes of applicatives described in the literature, with the potential to systematically derive the interpretation of the various applicatives/datives, and the "natural classes" of crosslinguistic variation in the availability of applicatives.

In Pylkkänen's work, the crucial distinction in height is actually a distinction between the category or type of the complement of the applicative head[9] . To the basic distinction between applicatives taking nominal complements or entities (LowAppl) and applicatives taking verbal complements or events (HighAppl), further distinctions have been developed, particularly among the verbal complements.

**Kim2011** proposed that in addition to the applicatives which take verbal complements to the exclusion of the subject (vP), there are those which take a larger verbal projection including the subject (VoiceP). This is the case of Peripheral Applicatives which introduce a nominative affectee in Korean and Japanese passives.[10] **Tsai2018** proposes an even higher applicative for Mandarin, which licenses an argument above the inflectional domain and is "involved in the arrangement of the information strucutre" (**Tsai2018**).

Cuervo (2003, 2011, 2015a) proposed that applicative heads taking verbal complements are sensitive to the eventive (dynamic) or stative nature of the vP. Benefactives are prototypical cases of high applicatives taking a dynamic vP as complement; experiencers are prototypical cases of high applicatives taking (psycho-

[9] This distinction could be reinterpreted in other terms. For example, McGinnis distinguisges symmetrical and asymmetrical applicatives in terms of phases. See also **BonehNash2017** for a scalar approach to high and low datives in Russian.

[10] In Korean passives, a nominative affectee is the only argument that can trigger honorific agreement with the verb. In the example below, **Kim2012** analyzes *apeci-ka* 'father' as a Peripheral Applicative: a high applicative merged above VoiceP.

- *apeci$_1$-ka Minswu$_2$-eykey pal-ul palp-hi-si$_{1/*2}$-ess-t*

father-NOM Minsu-DAT foot-ACC step-PASS-HON-PAST-DEC 'Father$_1$ was adversely affected by Minsu's stepping on his$_1$ foot.' (**Kim2012**)

logical) stative vPs.

Further, in previous work I have argued that the interpretation of applied arguments not only depends on the (type of) complement of the applicative head and properties of the head, but is also affected by the structure *above* the Appl head[11]. Specifically, I have argued that the interpretation of a high applicative is affected by the structure above the applicative phrase, in particular by whether there is another vP above it, embedding or selecting the ApplP, as in the case of Affected Applicatives with (bi-eventive) causatives and anticausatives/inchoatives. For example, Affected Applicatives (**??**) and Experiencers (**??**) are both high applicatives which take a stative vP as complement; the predictable contrast in interpretation arises from the Experiencers being non-embedded high applicatives (**??**) and the Affected Appl being embedded under a dynamic vP (agentive $v_{DO}$ in causatives or non-agentive $v_{GO}$ in inchoatives), as in (**??**).

(3)

Affected datives
a. With causatives: French
*Le teinturier lui a massacré une chemise.*
the dry-cleaner CL.DAT has destroyed a shirt
'The dry-cleaner ruined her/his shirt (on her/him).' (**BonehNash2012**)
b. With anticausatives: Spanish
*A Carolina se le rompió la radio*
Carolina.DAT CL.REF CL.DAT broke the radio
'The radio broke on Carolina'
c. Structure of Affected Appl in causatives (**Cuervo2003**)
VoiceP
3
$DP_{Subj}$ 3 *v*P
Voice 3 **ApplP**
$v_{DO}$ 3

[11] A reviewer wonders whether this interpretation is countercyclic, and should be restricted to occur within a phase. Indeed, the relevant interpretation discussed here is thematic interpretation at the level of argument structure, which is arguably restricted to the domain limited by VoiceP at the edge. The view that structure above a head is relevant for interpretation, although initially surprising, is compatible with Wood and **Marantz2017**'s (**Marantz2017**) unification of argument-introducing heads into one, whose distinct interpretations arise as cases of contextual allosemy, that is, configurational meanings within the extended projection of the verb. See below for discussion.

**$DP_{Dat}$ 3 $vP_{BE}$**
**Appl 3**
$DP_{Obj}$ **6**
*v*+Root

(4)

Dative experiencers
a. *A Rosa le molesta el humo*
Rosa.DAT CL.DAT bother the smoke
'Smoke bothers Rosa' (Acedo-**MatellánMateu2015**: 90)
b. *A Emilio le parecen difíciles esas decisiones*
Emilio.DAT CL.DAT seem difficult those decisions
'Emilio finds those decisions difficult'
c. Structure of dative experiencers
**ApplP**
3
**$DP_{Dat}$** 3 **$vP_{BE}$**
**Appl** 3
DP 3
$v_{BE}$ Root (**Cuervo2003**)

This way, Affected Applicatives are distinguished from LowAppl by the structure *below* them: they appear above the root, and take a verbal complement. In turn, they are distinguished from Experiencers by the structure *above* them within the extended verbal projection.

The structure above the applicative is also responsible for the contrast between "instrumentals" and "causees", two types of arguments analyzed as high applicatives taking a dynamic vP as complement. "Causee" is the interpretation assigned to an instrumental high applicative embedded under a dynamic vP ($v_{cause}$ or $v_{do}$).[12] Unlike an instrumental applicative—embedded directly under Voice which is related to the same event as the agent—a causee is the only external argument related to the embedded event. Although putting together these two types of arguments might initially seem questionable, Jerro observes that "several genetically unrelated and geographically non-contiguous languages have morphologi-

[12] Some dative causees have been argued to be volitional agents, compatible with agent-oriented adverbials, as in the case of Spanish *hacer*-infinitive constructions (parallel to the French *faire-infinitif*. In this case, there is no agreement whether these should be considered applicatives (as in **Torrego2011**) or not (**Kim2011**, **Tubino2012**). See §**??** for further discussion.

cal forms that subsume both causative and applicative uses" (**Jerro2017**), and proposes for Kinyarwanda a common origin for both types of arguments. **Kim2011** proposes an explanation for the causee-instrumental syncretism in Korean and Niuean arguing that "in morphological causatives, a causer uses a causee as an instrument to make a relevant event take place" (2011: 499). According to Kim, the Niuean instrumental applicative morpheme *aki* introduces the causee under causative *faka-*. She further observes that in Middle Korean morphological causatives, a causee was marked with the instrumental *–(u)lo*, as illustrated in (**??**), and that an "animate dative DP in morphological causatives and adversity clauses can also be interpreted as an instrument" (**Kim2011**).

(5)

*ai-lo hwenhi tung-ul kulk-hi-ko*
child$_{\text{-ACTIVE.INSTR}}$ cool back$_{\text{-ACC}}$ scratch-i-and
'[I] had$_{\text{caus}}$ my child scratch my back cool [i.e. relieving the itch].' (**Park1994**, in **Kim2011**:499)

With respect to low applicatives, merged under the verbal root, the distinction between dynamic and stative applicatives also seems to play a role. Pylkkänen defined two sub-types of low applicatives, Low Appl$_{\text{TO}}$ and Appl$_{\text{FROM}}$, based on languages whose double-object constructions require a transfer-of-possession predicate, such as English and, arguably, Hebrew.[13] These constructions are doubly dynamic, in the sense that both the transfer predicate (arguably requiring a PATH structure) and the applicative head encode dynamic relations.

Besides those merged under dynamic verbs of transfer of possession, in some languages a low applicative can also appear under transitive or unaccusative verbs that do not denote *transfer* of possession (either dynamic or stative verbs). This is **Cuervo2003**'s (**Cuervo2003**) LowAppl$_{\text{AT}}$, which expresses a non-dynamic possession relation. LowAppl$_{\text{AT}}$ can take a DP, a PP or a small clause-type of structure as complement, the applied argument being interpreted as different sub-types of possessors: possessor (**??**), locative (**??**), or experiencer (**??**).

(6)

a. DP complement: possessor dative (transitive; French)

[13] The verb itself can denote a transfer or it can be a creation verb which is interpreted as a transfer event in combination with a LowAppl.

*Michele lui a lavé les cheveux*
Michele CL.DAT has washed the hairs
'Michele washed his hair'
b. DP complement: possessor dative (unaccusative; Spanish)
*A la casa le faltan ventanas*
the house.DAT CL.DAT miss.PL windows
'The house lacks (some) windows'

(7)

a. DP-PP complement: locative-possessor dative (Spanish)
*Gabi le puso el bebé en los brazos a Emilio*
Gabi CL.DAT put the baby in the arms Emilio.DAT
'Gabi placed the baby in Emilio's arms'
b. PP complement: locative-possessor dative (transitive; French)
*Elle lui a tiré dans le ventre.*
she CL.DAT has shot in the belly
'She shot her/him in the belly' (**BonehNash2012**)

(8)

a. SC complement: experiencer/locative-possessor dative (Spanish)
*Emilio le puso la mano encima a Lucila*[14]
Emilio.NOM CL.DAT put the hand on-top Lucila.DAT 'Emilio laid a hand on Lucila'
b. DP complement: experiencer-possessor dative (Spanish)
*A Emilio le duele una muela*
Emilio.DAT CL.DAT hurt a molar
'Emilio's molar hurts'

Sentences (7a-b) show that a dative argument can be the possessor of a body part or location expressed as the DP complement of a preposition. For (**??**), a dative co-appearing with a direct object and a locative PP, one can wonder what the complement of the applicative head is, that is, whether the dative takes the

[14]Following **Cuervo2003**, I assume here that the particle *encima* acts as the predicate in a small-clause-type of structure, which the applicative head takes as its complement. Unlike there, however, I take the datives in (**??**) to be low applicatives because they are merged as a complement of the verb. See Acedo-**Matellán2017** for an Affected Appl analysis of special datives in Latin.

[direct object + locative] or just the locative PP as its complement (as it arguably does in (**??**)). While it is true that there is a possession relation between the dative and the locative that excludes the direct object (this is evident in the English translation), the entailment of the sentence is expressed as a possessive construction with the dative as external argument and the theme and locative as internal arguments of *tener* 'have' (e.g. *Emilio tiene el bebé en (los) brazos* 'Emilio has the baby on his arms'). This shows that the part-whole relation between *Emilio* and *the arms* does not require a syntactic relation between the two to the exclusion of the theme *the baby*.[15]

In the examples above, the dative argument is interpreted primarily as the possessor of a body part; in each case, however, there is an "extra" layer of meaning arising from the structure, the meaning of the verb and world knowledge: benefactive (**??**), malefactive or affected (**??**), locative (6b, 7a), experiencer in (**??**).

The interpretation that is secondary in the examples above (affected, experiencer) becomes primary—and the possession interpretation is not entailed, although it might arise as secondary—for other types of dative/applicatives. This is the case of dative experiencers, which are possessors of a mental state, as seen in (**??**), and Affected Applicatives in (**??**), which are affected by the change of state of an object (expressed as the direct object). In the case of Affected Applicatives, many times the dative argument is also understood as the possessor of that object, and what aretermed Affected or Middle Applicatives are sometimes classified as possessors (e.g., Fernández **Alcalde2014**; see **Cuervo2003** for arguments to distinguish possessors from affected datives both syntactically and semantically).

As a result of these three distinctions (category of complement, stativity/dynamicity of complement, and embedding structure), a more articulated typology of applicatives can be constructed that accounts for subgroups of applicatives attested in particular languages, as well as the various interpretations that applicative arguments can have inter- and intra-linguistically. Ideally, the typology should also be a good base to account for the morphological form of the Appl head—in particular whether it is overt or null—as well as for the observed syncretisms between applicatives, causatives, adpositions and case markers.

Complement

Non-verbal Verbal (vP)

Dynamic (TO-FROM) Stative (AT)

[15] If this were the case, one would expect the entailment to be a location of the theme, expressed as subject, with respect to the dative and PP as internal arguments: *El bebé está en los brazos de Emilio* 'The baby is on Emilio's arms'.

[RECIPIENT] [POSSESSOR]
[SOURCE]
Dynamic Stative
Embedded Non-embedded Embedded Non-embedded
[CAUSEE] [INSTRUMENTAL]
[BENEFACTIVE][16] Causative Anticaus[17] Psych Non-psych
[AFFECTED] [EXPERIENCER]

*Figure ??: Subtypes of applicatives according to their position in structure and properties of their complement*

Figure **??** presents a typology of applicatives organized on the basis of configurational properties. As the diagram represents an inventory of Appl heads, it is possible to associate each node in the tree with particular features on the Appl head, both substantive and selectional. Thus, the splits proposed should reflect intrinsic properties of the Appl head or properties of its complement, but should not reflect properties of the structure that appears above the ApplP (which 'selects' the ApplP), as discussed below. Additionally, in an ideal geometry, we would expect that node labels and splits will not repeat within the diagram, and that each division will delineate a particular subtype of Appl. The diagram fulfills this to an important extent, but fails in two places, as discussed below.

The classification in Figure **??** captures Pylkkänen's idea that there are two types of applicatives. The two types are distinguished mainly in terms of their height within the extended verbal projection, in reference to being above or below the verb (specifically the root). This distinction results in the first split between Appls taking a verbal complement, HighAppl, and a non-verbal complement (but not necessarily a DP), LowAppl.[18]

The contrast between dynamicity and stativity is further introduced as a distinction relevant for both applicatives taking verbal and non-verbal complements. Within (non-embedded) high applicatives, this split captures the contrast between BENEFACTIVES and INSTRUMENTALS—related to dynamic events—on one

[16] The label BENEFACTIVE here represents datives with a benefactive, malefactive, or ethical interpretation, as well as 'substitutive' applicatives (**Peterson2007**).

[17] I assume here a bi-eventive analysis of anticausative constructions whereby a dynamic event—a vPGO expressing the change—embeds a state—a vPBE (see **Cuervo2003**, 2015b). Thus, an AFFECTED applicative taking a stative vP as complement is embedded under the dynamic vP both in causative and anticausative constructions.

[18] I remain agnostic with respect to the existence of applicatives that merge higher than vP (such as peripheral applicatives proposed by **Kim2011** and **Tsai2018**), as opposed to applicatives found outside the extended verbal domain as a result of movement, and, therefore they are not represented n this typology.

hand, and EXPERIENCERS—related to a state—on the other.[19] The label EXPERIENCER covers the notion of possessors of (mental) states with psychological or non-psychological predicates (see section 4.4 for data and discussion). Among applicatives embedded under a causative, CAUSEES correspond to those taking a dynamic event—analytical causatives in many languages—while AFFECTED are those related to a change of state—lexical causatives in many languages, and anticausatives/ inchoatives.

Given that their complement is non-verbal, the contrast in dynamicity in LowAppl is encoded as a property of the sub-type of LowAppl head itself (TO and FROM are dynamic for RECIPIENTS and SOURCES, respectively; AT, for POSSESSORS is a stative relation). The contrast between dynamic and stative low applicatives cannot be obtained by simple reference to the embedding verb. Specifically, a stative ApplAT is compatible with both dynamic, eventive verbs (as for Spanish *wash* and *sell*) and stative verbs (*admire, envy*).[20] In the case of LowAppl, what is either dynamic or stative is the (possessive) relationship between the applicative DP and the theme object DP.

Another distinction is introduced among verbal (high) applicatives: whether the applicative taking a vP as complement is itself embedded under another (dynamic) vP. As mentioned above, CAUSEES and AFFECTED applicatives appear between two vPs, in contrast to, for example, non-embedded BENEFACTIVES and INSTRUMENTALS, which appear between VoiceP and a dynamic vP.

The split between non-embedded Appls and Appls embedded under another vP refers to the structure immediately above the ApplP, that is, to the head the Appl is a complement of. It is unusual for a feature of the Appl head to allude to its selecting head or phrase, and this appears to be an imperfection of the typology.

Another instance of reference to the structure selecting for the Appl could be found in Appls that select a non-verbal complement, that is, LowAppl. The issue is that Appl exclusively appears as a complement of a verb: Appl needs a verbal environment either above or below it, as it is incompatible in the nominal domain. This means that even if we eliminate explicit reference to selecting structure for Appls taking a verbal complement, there will always be implicit reference to a verbal projection above the LowAppl. This property of the classifica-

[19] As noted by a reviewer, **Pylkkänen2008** argued that benefactive high applicatives can combine with static verbs such as *hold*. This "static verb" is eventive and "dynamic" in the relevant sense, however, as suggested by the reviewer, at least in the context of a benefactive applicative. The notion of "static" is presented in Pylkkänen in opposition to dynamic verbs of transfer.

[20] In contrast, a stative verb (e.g., *admirar* 'admire', *faltar* 'lack') is only compatible with a stative applicative (LowApplAT).

tion, rather than being a problem, expresses a central property of applicatives, as opposed to their close relatives, adpositions. In contrast with adpositions, which can typically appear as PP modifiers in the clausal, verbal and nominal domains, Appl is only licensed in a verbal environment. This could be expressed as a feature or variable that needs valuation by a v feature. This proposal accords with **Svenonious2007**'s (**Svenonious2007**) treatment of verbs containing an eventive variable *e* that is bound by Tense because Appl islike a more restricted Path PP which also "must be linked to verbal structure, hence ultimately bound by tense" (**Svenonious2007**).

As noted earlier, reference to the structure above Appl seems difficult to reconcile with an attempt to capture the various subtypes of applicatives in terms of a geometry of features encoded by the Appl head. These distinctions are better captured by an approach whereby an Appl head is defined as an introducer of an event participant minimally specified as a possessor(-orientation), with its varying interpretations arising contextually. §**??** develops this approach by deriving the "typology" in Figure **??** on the basis of configurational properties. Further specification, possibly of a lexical nature, is needed to capture contrasts among low applicatives, and between benefactives and instrumentals.

# • 4 Deriving the sub-types

## 4.1 Below the verb: low applicatives

This section briefly discusses the properties of low applicatives which take a non-verbal complement, typically a DP. Arguments of this type of Appl are interpreted as RECIPIENTS, POSSESSORS, SOURCES or LOCATIONS.

The contrast among subtypes of LowAppl has been accounted for in terms of subtypes of heads: TO and FROM for recipients and sources, respectively (**Pylkkänen2008**) and AT for possessors (**Cuervo2003**).[21] Although dynamicity (or directionality) is at the core of the three sub-types, this constrast cannot be simply derived from differences in the complement of the Appl head, or other configurational properties. As such, the distinction might require encoding as a feature on the applicative head (+/- dynamic, or [Path], for instance); alternatively, the distinction can be captured as a root element associated with the applicative head (as

[21] In some languages, including Spanish, locatives and other special arguments can also be expressed as LowAppl.

proposed by **WoodMarantz2017** for high applicatives and Prepositions).[22] Individual languages could, in principle, choose freely among these heads, although TO is the most widespread and basic LowAppl (also the least morphologically marked, **Cuervo2015a**).

Although in Pylkkänen (2002, 2008), LowAppl was defined as an applicative merged under a transitive verb expressing transfer of possession, I have shown in previous work that the same relation can take place under unaccusative verbs, as well attested in Spanish with both dynamic verbs (e.g., *crecer* 'grow', *caer* 'fall', *llegar* 'arrive', *doler* 'hurt'$_{\text{Intr}}$) and stative, existential verbs (e.g., *faltar* 'lack', *quedar* 'remain', *sobrar* 'be extra'), contra **Baker1996**.

The defining feature of low applicatives is therefore their position as complements of the verb and their possession relation (with an entity or location), rather than the transfer meaning, or the transitivity of the verb. With respect to the category of their complement, LowAppls do not necessarily select a DP: all that is required is that they take a non-verbal complement. As such, cases in which an applicative takes a prepositional phrase or a small clause as complement, as illustrated in (7-8), would be cases of low applicatives (LowAppl$_{\text{AT}}$, specifically).

### – 4.2 Benefactives, instrumentals and other dynamic high applicatives

This section discusses the properties of high applicatives which take a dynamic, eventive vP as complement, and appear under a Voice head. These high applied arguments are typically interpreted as benefactives, malefactives, or instrumentals.

Benefactives seem to be the most widespread type of high applicatives (**Polinsky2013**): applicatives that license an argument related to a dynamic event in a non-actor role. Malefactives and so-called 'ethical datives' can be captured in the same way structurally. The different interpretations could be associated with different subtypes of applicative heads, or could be derived as a combination of a 'factive' meaning of the Appl head, lexical meaning of the verb, and world knowledge. This seems to be the case for 'ethical datives' in Romance (*dativus commodi/incommod*i, see **RobergeTroberg2009** for discussion of terms for the various datives labelled 'ethical' or 'dative of interest'), in which arguments with the same

[22] A reviewer asks whether this difference in encoding is predicted to have empirical consequences. One consequence concerns whether variation in semantics is systematic or unconstrained, which is a central part of my future research. In addition to semantics, intra- and crosslinguistic variation in morphological overtness and shape of heads will be an important topic.

morphosyntax can be alternatively understood as benefactives (**??**) or malefactives (**??**); examples from **RobergeTroberg2009**.

(9)

Bene/malefactive applicatives: vPDO complement
a. Portuguese benefactive
*Elle ligou-lhes amavelmente a luz*
he connected-CL.DAT.3PL kindly the light
'He kindly switched on the light for them'
b. Italian malefactive
*Gli invitati gli hanno mangiato tutto quello che rimaneva nel frigo.*
the guests CL.DAT have eaten all that which remained in-the fridge
'The guests ate everything that was left in the fridge on him'

Instrumental applicatives have also been assigned the same structural properties, but are thematically related to the event in a more active initiator or actor-like role. If the same position is assigned to instrumental applicatives, then a featural analysis of argument introducing heads could distinguish them from (bene/male)factives with a +actor/initiator specification. Interestingly, in Kinyarwanda, benefactives and instrumentals are introduced with the same applicative morphology, but contrast in terms of the relative word order between the applicative and the direct object (benefactives appear before, instrumentals after; **McGinnisGerdts2004**).

Causees are also introduced by an Appl which takes a dynamic vP as complement. As we have seen, the contrast between instrumentals and causees reduces in this approach to a contrast between being embedded under another dynamic v (Causees) or not (Instrumentals, merged under Voice). Given the semantic and syntactic similarity, and the syncretisms between causatives and instrumentals discussed in section 3 for Niuean, Korean and Kinyarwanda, this is a welcome result.[23]

This classification, which considers the structure below and above the Appl head, can also capture "accidental causers" in unaccusative change-of-state verbs (inchoatives), as well as non-volitional agents with activity verbs.

In the case of dative arguments with anticausative predicates, a dative argument is usually ambiguous between an affected reading and an unintentional or accidental causer reading. This is the case for Spanish and German, among

[23]Syncretic forms between benefactives and causatives are found in Hualapai (**Peterson2007**).

other languages. Cuervo (2003, 2014) and **Schäfer2008** propose that the accidental causer reading is the interpretation of a high applicative which takes the bi-eventive inchoative structure as its complement (vGO-vBE), and which crucially does not merge under an agentive Voice head (example and structure from **Cuervo2003**: 166-7).

(10)

a. Dative with inchoative
*Al tintorero se le quemaron los pantalones de Carolina*
the dry-cleaner.DAT SE CL.DAT burnt.PL the trousers of Carolina
'Carolina's trousers got burnt on the dry-cleaners' or
'The dry-cleaner accidentally burnt Carolina's trousers'
b. Structure of accidental causer high applicative
**ApplP**
**3**
**DP$_{\text{Dat}}$** 3 *v*P$_{\text{GO2}}$
**Appl** 3 *v*P$_{\text{BE1}}$
$v_{\text{GO}}$ 3
DP$_{\text{Obj}}$ 5
*v*+Root

On the same basis, "non-volitional agents" expressed as dative arguments, as in Russian impersonal constructions, could be introduced by a high applicative which takes a dynamic vDO as complement, but no Voice head is projected above it.[24] Except for the structure above them, these arguments are like instrumentals: an entity or individual involved agentively in an event, but without volition (see **Skorniakova2009** for discussion).

(11)

*Boris-u xorošo pe-l-o-s' (# toby zarabota-t' denegi).*
Boris$_{\text{DAT.MASC}}$ well sing$_{\text{PAST-NEUT-REFL}}$ in-order make$_{\text{INF}}$ money
'Boris (felt like) singing well in order to make money.' (adapted from **Skorniakova2009**:189)

[24] Alternatively, a Voice head is projected but it is somehow defective and does not project an argument in its specifier (morphologically expressed as a reflexive).

- **– 4.3 Embedded high applicatives: affected applicatives and causees**

This section briefly discusses the properties of two kinds of high applicatives embedded under a dynamic, eventive vP: those which take another eventive vP as complement (applied DP interpreted as Causee), and those which take a stative vP (their applied argument interpreted as Affected).

Affected Applicatives are defined as those which appear in change-of-state constructions, both transitive causatives and intransitive anticausative/inchoatives (**Cuervo2003**, 2010, 2015b), as illustrated in (**??**), repeated as (**??**) below.
(12)

a. *Le teinturier lui a massacré une chemise.*
the dry-cleaner CL.DAT has destroyed a shirt
'The dry-cleaner ruined her/his shirt (on her/him).' (**BonehNash2012**)
b. *A Carolina se le rompió la radio*
Carolina.DAT CL.REF CL.DAT broke the radio
'The radio broke on Carolina'

These applicatives take a state as complement and, in this sense, are the "possessors" of a state. In this they resemble experiencer applicatives, which also relate to a state, as expressed by Figure **??**. As possessors or recipients, they can be confused with low applicatives, but two types of evidence suggest a structural as well as an interpretational difference. First, there are languages (e.g., English) in which double objects/low applicatives are productive, but are systematically disallowed in constructions involving an embedded state, such as causative constructions and resultatives (**The storm broke them the radio*, **They drank me the teapot empty*). Secondly, Affected applicatives do not need to be the possessors of the theme, although a possession relation might be an inferred component of the interpretation (see **Cuervo2003** for further arguments).

As argued in §**??**, it is the projection above the applicative that distinguishes affected from experiencer applicatives, in particular the fact that there is a dynamic event above Appl that signals the initiation of the state in causatives and inchoatives. An experiencer, by contrast, is the highest argument within the extended verbal projection, as represented in (**??**) (see §**??** for more detailed discussion).

Causees are also derived as a type of high applicative, which, like Affected Appl, is "sandwiched" between two verbal layers.[25] Unlike Affected Appl, Causees

[25]In this sense, Causees are a sub-type of Affected Applicatives. However, I reserve the term

take a dynamic, eventive vP as complement. One of the arguments advanced against analysing causees as applicatives has been the interpretation of causees not only as the entity or individual acted upon (or "affected") but also as agentive. This is the semantic argument based on which **Tubino2012** rejects an applicative account of Italian and Spanish causees. In fact, **Kim2012**'s (**Kim2012**) conclusion is exactly that the difference in agentivity is what distinguishes high applicatives from arguments of Voice, the contrast being encoded as a feature +/- agentive in the licensing head. **BonehNash2011** also propose that affectedness is the central meaning of applied arguments, while causees are licenced as regular agents, in the specifier of vP.

The framework presented here reconciles the affectedness and the agentivity components of the interpretation of causees. On the one hand, affectedness—a prominent interpretation of causees in the "obligation" reading of causatives (as in the Romance *faire infinitif* constructions, **FolliHarley2007**)—could be derived as the meaning of the High Appl head directly. Alternatively, it can arise as the configurational meaning of an argument that participates in two events: the object of the higher verb *faire* and the 'instrument' or 'bene/malefactive' of the lower predicate, as in **Ippolito2000**'s (**Ippolito2000**) applicative analysis and in Affected Appls. On the other hand, the agentive or 'doer' interpretation of the relation between the dative causee and the lower event can be derived by the applicative being the highest argument within the extended verbal projection of the lower vP (as in accidental causers with unaccusatives, illustrated in (**??**) above).[26] In other words, agentivity might arise also as the interpretation of an animate argument DP above a dynamic vP for which Voice is not projected.[27] This is possible if the meaning of the applied argument is specified more configurationally than determined by the denotation of the head (see **Cuervo2015a**, and **WoodMarantz2017**).

Affected Appl for those taking a (verbal) state as complement, as a distinction that may be relevant to capture systematic crosslinguistic variation in the availability of applicative constructions.

[26] The Voice projection that licenses the causer relates it to a *different* vP, which merges above the applicative, and it is typically spelled out by a causative affix or light verb.

[27] **TollanOxford2018** argue that external arguments of activity verbs can be licensed either as arguments of Voice (for transitives) or v (for unergatives). In a parallel fashion to dative causees receiving an interpretation associated with Voice, dative experiencers as the highest argument within the extended projection of a stative vP also receive an interpretation as the argument of stative Voice: that of holder of a state (**Kratzer1996**). See §**??** for further discussion of experiencer DPs as applied arguments.

## • – 4.4 Dative experiencers as stative high applicatives

This section discusses several structural and semantic properties of dative experiencers as the last type of applicative in the typology schematized in Figure **??**: unembedded high applicatives which take a stative vP as complement, and introduce the highest argument in the extended verbal projection (that is, Voice is not projected).

Dative experiencers have received much attention following Belletti and **Rizzi1988**'s (**Rizzi1988**) seminal work on Romance. An important puzzle they recognize is the apparent reversal of the usual thematic mapping: the theme is the nominative subject while the experiencer is coded as object, as illustrated below in Spanish and Pashto. Another important characteristic is the stative nature of dative experiencer constructions.[28]

(**??**) Spanish

*A Daniela le gustan las películas suecas* Daniela.DAT CL.DAT like.PL the movies Swedish

'Daniela likes Swedish movies'

(Lit. 'Swedish movies are appealing to Daniela')

(**??**) Pashto

*Meena taa de pradi khelko na sharem wer-z-i*

Meena DAT of strange people ABL shyness.NOM to.3RD-go-3

'Meena feels shy of/from strangers.' (**Babrakzai1999**)

(Lit. 'Shyness goes to Meena from strange people.')

The nature and source of dative case has been debated, but here the two central questions are 1) where does the "experiencer" interpretation come from? and 2) what kind of arguments are dative experiencers?

With respect to their interpretation, experiencer datives with psych predicates have been characterized as possessors or locations, or holders of psychological states. **Parsons1995**, for instance, subsumes experiencers as a case of the more general "in-ness relation" of subjects of states: "x is *in* s" by observing that "when the verb is one of psychology or perception, the *In*-ness relation coincides with (…) the Experiencer relation" (1995: 664). For **Landau2010**, experiencers are locations of mental states. In de **Miguel2015**'s (**Miguel2015**) words, experiencers "combine the values of location and possession" (2015: 243; my translation). This characterization of the meaning of dative experiencers in terms of possessors or

[28] Their stative nature has been claimed to cover even cases of eventive interpretations, such as when the verb is in past tense (see Fábregas & Marín, this volume), and of psychological expressions with light verbs of movement or transfer of possession (as illustrated in Pashto (**??**)).

locations of states resembles characterizations of stative low applicatives, and makes dative experiencers good candidates for an applicative analysis. Cuervo (2003, 2011) developed a high applicative analysis of dative experiencers: the experiencer DP is external to the state specified by the verbal root, of which the nominative DP is the holder. In this sense, there are two "subjects" in the construction in (**??**).[29] Dative case and morphological expression of the Appl head as a pronominal clitic are the usual forms for applicative constructions in Spanish. (13)

Dative experiencers as high applicatives (for example (**??**)
ApplP
3
**DP$_{\text{Dat}}$** 3 ***v*P$_{\text{BE}}$**
*a Daniela* Appl **3**
*le* DP **3**
*las películas* $v_{\text{BE}}$ Root
*gust-*

The high applicative analysis contrasts with previous analyses that equate (the initial position of) dative experiencers with datives in canonical ditransitive constructions, whether treated as double-object, incorporation, low applicative constructions or locatives (**BellettiRizzi1988**, **Masullo1992**, among others). [30] Unlike those analyses, (**??**) expresses the fact that the dative DP is not directly related to the other argument, and that there is no possession relation between the two DPs: crucially, the "possession" relation is between the dative DP and the state (the vP complement of the Appl head).

Dative experiencer constructions reveal semantic crosslinguistic variation based on availability of particular constructions. The structure and meaning of the transitive English sentence *Daniela likes Swedish movies* contrast with its translation

[29] Other evidence that the nominative argument is also a 'subject' is that psychological verbs taking dative experiencers are acceptable without the experiencer, in which case the nominative DP typically appears pre-verbally, as illustrated in (i). See **Cuervo2011** for further arguments and data.

- *Los ruidos de la calle no importan/ molestan/gustan.*

the noises of the street not matter/ bother/ appeal 'Street noise is not important/ bothersome/ appealing.'

[30] Acedo-**MatellánMateu2015**, **Pujalte2015** adopt the unaccusative analysis with the dative experiencer as HighAppl and the usual dative case (but change the licensing position of the lower DP).

equivalent in a language with dative experiencers as in (??), in which the psych predicate expresses a property of the nominative argument (*Las películas suecas gustan*, 'Swedish movies are appealing'), a predication that is lacking in the English sentence.[31]

As mentioned earlier, experiencers are related to possessors and (human) locations, but are not taken to be affected arguments. This is consistent with the proposal that affectedness in dative or applicative arguments arises as a configurational meaning involving two verbal layers. However, proposing that dative experiencers are unembedded high applicatives which take a stative vP as complement does not directly derive the 'experiencer' interpretation. In principle, the interpretation could arise as a result of the lexical meaning of the psych verb, of the denotation of the Appl head or some other specialized head, or the extended verbal configuration as a whole.

It could be argued that the meaning of the experiencer as a specialized type of possessor or location arises from the meaning of the psych verb, in virtue of the dative DP being one of its arguments. Regardless of whether one has any general reservations against a lexically-based approach to argument structure, there are empirical arguments against deriving the interpretation of the dative experiencer from the lexical meaning of a verb. These arguments are presented below fromSpanish, but other languages provide similar evidence.

First, not every experiencer is the subject of a *psychological* experience, there also being physical states associated to an experiencer argument, as in (??).[32] Second, intra- and inter-linguistically, many experiencers appear with psychological predicates formed as light verb constructions in which the psych meaning comes from a nominal element, not from the verb, and the dative argument is arguably associated with the light verb, as in (??), and in (??) above. Finally, as noted by di **Tullio2015**, there are dative DPs interpreted as experiencers in combination with idiomatic psychological expressions formed without any psych words, as in (??).

[31] Not all psych constructions display this variation, however. English also has psych constructions formed with prepositional phrases, such as *to*-DPs with psych predicates such as *appeal*, *seem*, and *be important*.

[32] The interpretation of the dative in (??) and (??) is not perfectly captured by its English translation. As in the case of other applicatives, such as low and affected applicatives, a dative argument is understood as more than a goal or location, and typically only animate entities are licensed (therefore, the dative in (??) could not be replaced by *the mannequin*) or inanimate entities in a part-whole relation, as in (??). The contrast between Spanish (??) and its English translation is perhaps similar to the contrast in English between *That is important to Amir/*the lawn* and *That is important for Amir/the lawn*.

(14)

*A Daniela le aprietan los zapatos*
Daniela.DAT CL.DAT squeeze.PL the shoes
'Those shoes are too tight for Daniela'

(15)

*A Daniela le dan miedo las tormentas*
Daniela.DAT CL.DAT give.PL fear the storms
'Daniela is afraid of storms' lit., 'Storms give fear to Daniela'

(16)

*A Daniela le dan cosa/ no sé qué las arañas*
Daniela.DAT CL.DAT give.PL thing/ not know.1SG what the spiders
'Daniela feels uneasy about spiders'
Lit., 'Spiders give Daniela stuff/I don't know what' (adapted from Di **Tullio2015**)

These data provide evidence against a lexical source of the experiencer interpretation, since experiencers do not require a lexical psychological verb. An alternative explanation is that the interpretation derives directly from the denotation of a specialized, more functional head, whose contribution is to licence an experiencer both syntactically and semantically (as Voice does for Agents). Within an applicative approach, this head would be the Appl head. It can be proposed that there is a specialized Experiencer 'flavour' or feature specification of HighAppl (as has been proposed for LowAppl in order to derive the recipient, source and possessor interpretation). A specialized head, rather than the verb, as the source of the experiencer interpretation has also been proposed by **Landau2010**, and argued by Fábregas & Marín (this volume): a prepositional head P which takes the dative DP as its argument and relates it to the state. The non-psychological experiencers illustrated in (**??**) are potential problems for this "all-in-the-head" approach, since it is not clear whether these cases would require a different P head than the one which combines with psychological predicates. Additional issues arise with arguably experiencer arguments that are hard to classify as either psychological or physical, particularly in the case of inanimate datives, as in (**??**).

(17)

a. *A Daniela le quedan mal los zapatos*
Daniela.DAT CL.DAT stay.PL bad the shoes
'Those shoes look bad on Daniela'
b. *Al regalo le queda mal ese moño*
the present.DAT CL.DAT stay bad that bow
'That bow looks bad on the present'

Even more importantly, a problem with the proposal that experiencer is the meaning assigned by a dedicated applicative (or P) head is that, as noted by Wechsler (this volume), an unconstrained quantity of different heads would be required to account for the other interpretations. The resulting system would be unable to express or account for the systematicity between the structure of the verbal domain and interpretation of arguments.

A third, intermediate possibility can be developed within a more explanatory applicative analysis: "experiencer" is a configurational meaning which takes into account the Appl head and its position within the extended verbal projection, properties of the complement of Appl, as well as idiosyncratic meanings of vocabulary items, and idiomatic expressions.[33] Ideally, the semantic contribution of the Appl head is minimal and constant as far as the interpretation of its argument is concerned, although **Pylkkänen2008**'s (**Pylkkänen2008**) distinction between High and Low in terms of semantic composition must be maintained.

As specifiers of a high applicative, dative experiencers are related to a vP, and share properties with bene/malefactives, instrumentals, causees, and affected applicatives (Figure **??**). Unlike bene/malefactives, Affected Appls and causees, experiencers are not typically affected arguments. Unlike instrumentals, experiencers are not related to an event in a 'doer' capacity; if anything, they are closer to undergoers than to agents. Can these different interpretations be derived without postulating "experiencer" directly as the denotation of a particular HighAppl head?

As discussed in section 3, experiencers are structurally distinguishable from both Affected Appls and Causees, as represented in Figure **??** by the "embedded/non-embedded" contrast. Since affectedness arises from the applicative argument participating in two (sub)events, the lack of affectedness reading for dative experiencers follows. The contrast between experiencers and bene/malefactives and instrumentals is based, in Figure **??**, on the dynamic or stative nature of the comple-

[33] Such a configurational approach could also be developed on the basis of **Landau2010**'s (**Landau2010**) functional P head, but I do not pursue that line here. See Acedo-**MatellánMateu2015** for an account of properties of psychological predicates based on characteristics of the root.

ment vP. Stativity is a crucial component of our understanding (or definition) of an experiencer as the possessor of a mental state. Another property of the structure of dative experiencer constructions, however, is crucial: the experiencer is the highest argument, there not being another external argument licensing head (such as v or Voice) above Appl.

In order to test whether these two structural components are needed to obtain an "experiencer" reading (of a high applicative), they should be isolated. First, stative verbs that are not unaccusative, such as Spanish *vivir* 'live', usually appear in unergative structures with a nominative subject alone, or with a locative as well. A dative argument may be added to the sentence with a locative, as in (??).[34]

(18)

*Emilio le vive en el jardín* (*a Vera*).
Emilio CL.DAT live in the garden (Vera.DAT)
'Emilio is living in Vera's garden (on her)'

The interpretation of the dative argument *Vera* in (??) is not that of an experiencer, but more specifically a bene/malefactive, arguably due to the presence of the external argument, merged above the high applicative, which, in turn, takes a stative vP as complement.

The other test is an unaccusative structure in which the dative is the highest argument, but in which the vP complement is dynamic rather than stative. Would such dative be interpreted as an experiencer? Fábregas & Marín (this volume) probe this question and suggest that a dative argument with a reflexive dynamic predicate i a potential experiencer:

(19)

*A Juan se le olvidan las cosas (rápidamente).*
Juan.DAT SE CL.DAT forget.PL the things quickly
'Juan forgets things (quickly)

This sentence is in present tense, just like the typical stative in (??), but here the present is understood as episodic or habitual, as an activity verb would. Interestingly, what Fábregas & Marín consider an experiencer could be the result of the psychological nature of the predicate in an inchoative structure, in which a

[34] The resulting sentence is colloquial, and not accepted by all speakers. In any case, the relevance of the example is the interpretation obtained by those speakers who accept it.

dative argument would typically be read as an accidental causer. This highlights the interaction between structural properties and lexical meaning in the interpretation of a dative DP. Note in the examples below how the interpretation of the dative is somewhat different in the absence of a psychological reading of the predicate. In the unintentional causer reading, the underlying structure is that of a high applicative merged above a (non agentive) dynamic vPGO (**Cuervo2003**, 2014; **Schäfer2008**; see §**??**).

(20)

*A Juan se le pierden/queman las cosas.*
Juan.DAT SE CL.DAT lose.PL / burn.PL the things
'Juan (accidentally) loses/burns things'

These data support the view that the interpretation of a (dative) argument as an "experiencer" is better captured as a configurational meaning rather than a meaning dependent on the denotation of a licensing head or a lexical element. In particular, the data show that both stativity of the verbal complement, and absence of an external argument above the dative DP, are crucial components for the experiencer interpretation to arise as the most salient.[35]

## • 5 Conclusions

Classical Nahuatl grammarian Horacio Carochi characterized applicatives as those which "orient the action of the verb towards another person, or thing, attributing it to him by way of harm, or benefit, taking it away from him, or putting it on him, or relating it to him in some way or another, as shall be understood through the examples; e.g., *nitlaqua*, 'I eat something'; its applicative is *nictlaquaia in notàtsin*, 'I eat my father something', as if he has fruit, or something else, and I eat it from him…":

VERBO aplicativo es el que ordena la acción del verbo a otra persona, o cosa, atribuyéndosela por via de daño, o provecho, quitándosela, o poniéndosela, o refiriéndosela de qualquiera manera que sea, como se entenderá por los exemplos;

[35] **Kim2011**'s (**Kim2011**) analysis of Korean adversity passives as experiencer *have* constructions (as in English *Peter had the children laugh at him*) is also crucially based on the "affected experiencer" being the highest external argument in the extended verbal domain. Interestingly, these two properties also hold of the arguably other way of licensing experiencer subjects: as Holder arguments licensed by Voice in the context of a psychological predicate, as in *Natasha fears lighting*.

verbi gracia: *nitlaqua*, 'como algo', su aplicativo es *nictlaquaia in notàtsin*, 'como algo a mi Padre', como si tenía fruta, o otra cosa, y se la como. (**Carochi1645**)

Carochi's translation of the Náhuatl applicative into Spanish involved the addition of a dative argument (*a mi Padre*, and *se* in *se la como* above), illustrating the overlap between applicative and dative arguments. Although the overlap may be imperfect, it is significant and systematic. The study of datives as applicatives provides a framework to capture datives as a class beyond their morphology in terms of the type of licensing, while allowing for systematic variation in terms of structural position and thematic interpretation.

This broader approach to the study of dative constructions goes well beyond the most typical datives in ditransitive constructions. By putting aside case as a domain where languages can vary, I have focused on what dative arguments have in common as a class and as subcases of applicative arguments, as found in both languages with a rich case system and languages without overt case marking. Going beyond morphosyntactic coding is necessary in the quest to make crosslinguistic generalizations and to articulate a theory of argument structure.

**Carochi1645**'s (**Carochi1645**) notion of applicatives as derived verbs captures the intuition that there must be some extra piece in a verb that co-occurs with—and licenses—an applied argument. In order to systematically derive the subtypes of dative/applied arguments, it is crucial to take into account the way this extra piece integrates into the extended verbal projection of the clause. In describing its integration, not only the merge position (i.e., the complement) of the Appl head is relevant, but also the dynamic/stative nature of its complement, and the presence/absence of an external argument, and of a verbal head (intruducing a (sub)event) above the applicative. Once such a detailed proposal is developed, broad empirical coverage can be maintained while featural and lexical specification of the Appl head is drastically reduced. This minimal notion of Appl as introducing an argument "oriented" towards its complement accords well with the fact that in so many languages applicatives are expressed as dative arguments, analyzed themselves as an argument "in contact" with the rest of the predicate (Fábregas & Marín, this volume) via a directional or locative morpheme, such as Romance *a/à*. Appl is thus akin to the more grammatical adpositions whose complement is interpreted contextually (**Svenonious2007**). In this view of semantically underspecified Appl, a distinction remains between applied arguments and arguments of Voice (cf. **WoodMarantz2017**).

The richness of interpretations of applicative and dative arguments, in spite of their being licensed by a functional head with minimal semantics, sets them apart from the narrow range of interpretations for arguments of *v*/Voice, on the one

hand, and the practically unconstrained interpretations of arguments of lexical verbs/roots, on the other. Applicatives are, in this sense, an "efficient" way of generating diversity of meaning with limited resources by making use of various properties of the syntactic structures with which they combine.

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# Chapter 2

# The puzzle of Russian ditransitives

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***Abstract***. *In this paper I use the Scope Freezing Generalization (SFG), formulated on the basis of Russian quantifier scope freezing data in* ***Antonyuk2015*** *to gain insights into the structure of Russian ditransitives. The paper discusses the finding that Russian ditransitive predicates are not a homogeneous group, but instead subdivide into three distinct Groups, each with its distinct set of properties, with further syntactic evidence supporting the conclusion that these Groups have distinct underlying structures. One of the main findings, suggested by the (revised) SFG and supported by syntactic unaccusativity tests is that a group of Russian "direct objects" are not in fact what they seem, but are instead low Oblique arguments receiving Accusative case from a silent P head.*

**Keywords:** *ditransitives, scope freezing, Russian, unaccusativity, objecthood, Oblique Accusatives.*

## 1 Introduction

The argument structure of ditransitive predicates has been of interests to linguists for quite a long time, with the question of the exact nature of syntactic

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encoding of ditransitives remaining both a matter of debate and a source of important insights for grammatical theory. Thus, even in English, which has been studied extensively in the generative tradition for over half a century the question of argument structure is far from settled, with novel research ranging in analyses from a derivational Larsonian view (**Larson1988**; 2014) to separate projection view (an applicative analysis of **Marantz1993**; decompositional analyses of **Pesetsky1995**; **Harley1995**; 2002 i.a.) to a derivational reverse-Larsonian view on which the Double Object Construction (DOC) serves as the derivational base for the Prepositional Dative Construction (**Hallman2015**). It is not surprising then that in languages that have not been studied as extensively within the generative framework, Russian being one of them, there is little to no agreement on the issue, with a variety of views, schematized in (**??**) below:

(1)

Analyses of Russian ditransitives:

a. **Dative Goal object originates in Spec, VP position**, assigned Dative case as sister to V' (see **HarbertToribio1991**; **GreenbergFranks1991**; **Franks1995 Richardson2007**)

b. **Accusative Theme object is generated in Spec, VP position**, with the Dative originating in the complement position (**Bailyn1995**, 2010, 2012; **Titov2017**)

c. **Dative Goal object is assigned case by an Applicative head (Dyakonova2005**, 2007, following **Pylkkänen2002**)

d. **Non-derivational Dative-higher-than-Theme account** of ditransitves on which datives (locational vs. non-locational) have two distinct underlying structures (**BonehNash2017**)

The research summarized here, developed in detail in **Antonyuk2015** offers a way to understand the reason behind such multitude of views on Russian ditransitives by presenting a novel perspective, different from all of the above in that it discards the underlying assumption of the uniformity of Russian ditransitives and argues instead that Russian ditransitive predicates subdivide into three distinct Groups, each with its own clearly defined set of properties and corresponding differences in syntactic structure. The initial evidence for this proposal comes from quantifier scope ambiguity and scope freezing distribution patterns in ditransitives, supported further by syntactic tests that confirm the underlying structural differences between the three Groups.

The insight about the non-homogeneous nature of Russian ditransitives comes primarily from the scope ambiguity and scope freezing distribution patterns and it should be stressed that the notion of ditransitivity that emerges from this in-

vestigation is broader than what is generally assumed. In research on English, for instance, the notion of ditransitivity has been reserved mostly for verbs that undergo Dative shift (the prepositional Dative and the Double Object Construction), as well as the *Spray-Load* alternation. The Double Object Construction and the *with*-variant of the *Spray-Load* alternation are also the constructions that exhibit the scope freezing phenomenon in English (differing in this respect from the scopally ambiguous Prepositional Dative Construction and the other alternant of the *Spray-Load* alternation), with scope ambiguity-scope freezing contrast being treated as one of the properties that characterize ditransitives in English (see, for instance, **Bruening2001**, 2010). Current research takes the view that the scope ambiguity - scope freezing contrast is one of the most important properties of ditransitive verbs and moreover, that the scope ambiguity-scope freezing distribution patterns can be used to gain insights into the argument structure of ditransitives. The operative notion of ditransitivity, therefore, has been derived entirely on the basis of which predicates exhibit the scope ambiguity - scope freezing distribution patterns, and that appears to include any predicate which Theta-marks two internal arguments. Thus, the relevant notion of ditransitivity is one that includes both the "canonical" ditransitives which take an Accusative-marked Theme and a Dative-marked Goal internal arguments as well as verbs which include an Accusative-marked Theme and a PP argument or an Instrumental-marked DP or even those where the verbs subcategorizes for two internal arguments which are both realized as Prepositional Phrases.

Turning to data now, despite arguably being identical to English in terms of quantifier scope possibilities and Quantifier Raising properties as far as transitive sentences are concerned (see Antonyuk-**Yudina2006**; **Antonyuk2015**; 2019) there are both significant similarities *and* differences once we look at ditransitive sentences. While the important similarity to English is that Russian ditransitives show the same scope freezing effect as do English DOCs and the *with*-variant of the *Spray-Load* construction, the novel Russian data, briefly exemplified in (**??**)-(7) below, suggest that the range of constructions in which quantifier scope is surface scope frozen in the language is much broader than it is in English. In all of the examples below the sentences in (a) are ambiguous, whereas the sentences in (b) are surface scope frozen.

(2)

Russian Equivalent of the PP Dative and the Double-Object Construction:
a. *Učitel'. podaril kakuju-to knigu každomu*

Teacher[NOM] presented [some book][ACC.FEM] [every *studentu* student][DAT.MSC]
"The teacher presented some book to every student" ∃∀/∀∃
b. *Učitel' podaril kakomu-to student každuju* Teacher[NOM] presented [some student][DAT.MSC] [every knigu. book][ACC.FEM]
"The teacher presented some student with every book" ∃∀/*∀∃

(3)

Prepositional Ditransitive Construction:
a. *Maša potrebovala [kakie-to dokumenty] (s každogo* Masha demanded [some documents] ACC [$_{PP}$ from every posetitelja) visitor][GEN]
"Masha demanded some documents from every visitor" ∃∀/∀∃
b. *Maša potrebovala (s kakogo-to posetitelija) [každyj document]* Masha demanded [$_{PP}$ from some visitor] GEN [every document] ACC
"Masha demanded every document from some visitor" ∃∀/*∀∃

(4)

The *Spray-Load* Alternation:
a. *Vanja zagruzil [kakoj-to vid sena] [na každyj gruzovik]* Vania loaded [some type hay] GEN [on [every truck] ACC]
"Vania loaded some type of hay on every truck" ∃∀/∀∃
b. *Vanja zagruzil [kakoj-to gruzovik] [každym vidom sena]* Vania loaded [some truck] ACC [[every type] INSTR hay-GEN]
"Vania loaded some truck with every type of hay" ∃∀/*∀∃

(5)

The *Clear*-Type Alternation:
a. *Vanja ubral [neskol'ko tarelok] [s každogo stola]* Vania cleared [several dishes] ACC [from [every table] ACC]

"Vania cleared several dishes from every table" ∃∀/∀∃
b. *Vanja ubral [neskol'ko stolov] [ot každoj tarelki]*
Vania cleared [several. tables] ACC [from [every dish] GEN]
"Vania cleared several tables of every dish" ∃∀/*∀∃

(6)

Simple Ditransitives:
a. *Maša zarazila [kakoj-to bolezn'ju] [každogo pacienta]*
Masha infected [some illness] INSTR [every patient] ACC
"Masha infected with some illness every patient" ∃∀/∀∃
b. *Maša zarazila [kakogo-to pacienta] [každoj bolezn'ju]*
Masha infected [some patient] ACC [every illness]INSTR
"Masha got infected with every illness by some patient" ∃∀/*∀∃

(7)

"Reflexive Monotransitives" derived from simple ditransitives:
a. *Maša zarazilas' [kakoj-to bolezn'ju] [ot každogo pacienta]*
Masha infected-REFL [some illness] INSTR [from [every patient]GEN "Masha got infected with some illness by every patient" ∃∀/∀∃

b. *Maša zarazilas' [ot kakogo-to pacienta] [každoj*
Masha infected-REFL [from [some patient]GEN ] [every
bolezn'ju]
illness]INSTR
"Masha got infected with every illness by some patient" ∃∀/*∀∃

What is striking about the above examples is that despite all the differences between these sentences, such as changes in the obligatory morphological marking between the two alternating orders in the *Spray-Load* or *Clear*-type alternations or the fact that in some cases one of the internal arguments is realized as a Prepositional Phrase (PP) or, perhaps most strikingly, the "detransitivization" in (??) with scope freezing nevertheless preserved, all the differences notwithstanding, the one constant element in the above pairs is the permuted order of the verb's internal arguments. The Scope Freezing Generalization in (??) captures this fact:[2]

[2]The SGF in (??) reflects the important assumption that scope ambiguity is the norm and scope freezing is the "marked", special case in need of an explanation.

,[3]

(8)

Scope Freezing Generalization (SFG), revised (cf. **Antonyuk2015**):
*Scope freezing results when one QP raises over another to a c-commanding position within the VP as a result of a single instance of movement.*

In section 2 I use the scope data and the SF Generalization as a diagnostic, which suggests a non-homogeneous view of Russian ditransitives according to which they subdivide into 3 distinct Groups. In section 3 I discuss syntactic evidence supporting the claim that these groups are distinct. §**??** describes which structural possibilities are open for each group of Russian ditransitives, based on observed data patterns. §**??** concludes the paper.

## • 2 The basic empirical generalization: 3 classes of Russian ditransitives

Most of the Russian ditransitive constructions can be said to share the property of taking an Accusative (ACC) and a Non-Structural (Inherent) case-marked argument (marked here throughout as OBL for Oblique) that can occur in either order in surface form. The two orders of internal arguments are always truth-conditionally identical, with subtle information-structural distinctions between them. Here the Groups are distinguished according to the effect that word order permutations have on their scope interpretation possibilities. Thus, based on their scope behavior alone, we can distinguish between three distinct classes of ditransitives in Russian, schematized below:

(9)

**Group 1** (**??**) **Group 2**
ACC > OBL (ambiguous) OBL > ACC(ambiguous)
OBL > ACC (frozen) ACC > OBL (frozen)

[3] In this paper I argue, contra **Antonyuk2015**, that surface scope freezing observed with ditransitives and captured by SFG in (**??**) is a categorically distinct phenomenon from the surface scope *bias* found with cases of scrambling of a QP across a higher QP, as the judgments of surface scope freezing found with Groups 1 and 2 are not similarly affected by Information Structure-relevant phenomena such as prosodically realized Contrastive Focus (**AntonyukLarson2016**) or by Specificity-related Object Shift, as demonstrated for Ukrainian in Antonyuk and Mykhaylyk (under review).

(10)

**Group 3**
ACC > OBL (ambiguous)
OBL > ACC (ambiguous)

- **– 2.1 The three groups exemplified**

Group 1 is exemplified by Russian verbs such as *podarit'* ('to present'), which most often selects an Accusative Theme and a Dative Recipient argument: [4]
(11)

a. *Vospitatel' podaril [kakuju-to igrušku]. [každomu*
CaretakerNOM presented [some toy]ACC.FEM [every
*rebjenku]*
child]DAT.MSC
"The teacher presented some book to every student" ∃∀/∀∃
b. *Vospitatel' podaril [kakomu-to rebjenku] [každuju*
CaretakerNOM presented [some child]DAT.MSC [every
*igrušku]*
toy]acc.fem
"The caretaker presented some child with every toy" ∃∀/*∀∃

The alternation in (12a,b) resembles the scope freezing pattern of English alternating ditransitives. As we know from English, the THEME > GOAL/RECIPIENT order of quantifiers is ambiguous (**??**), allowing either quantifier to be read with wide scope. However, the GOAL/RECIPIENT > THEME order is frozen (**??**), allowing only the surface scope interpretation (**Larson1990**, **Bruening2001**).

(12)

a. Alice assigned some exercise to every student. ∃∀/∀∃
b. Alice assigned some student every exercise. ∃∀/*∀∃

[4] Throughout this paper, the phrase in square brackets represents the argument that cannot be dropped/elided. The one in parenthesis may be omitted while still being implicitly understood.

(13)

presents a non-exhaustive list of verbs whose behavior with respect to the scope freezing diagnostic places them into Group 1:

(14)

a. dat' ACC/DAT - to give (something to.somebody)
b. poobeščat'ACC/DAT – to promise (something to.somebody)
c. zaveščat' ACC/DAT – to bequeath (something to.somebody)
d. najti ACC/DAT – to find (something for.someone);
e. prostit' ACC/DAT – to forgive (something to.someone);
f. napisat' ACC/DAT or ACC/k DAT – to write (something to.someone or something to someone)
g. sdelat' ACC/DAT – to do (something to.somebody);
h. predložit' ACC/DAT – to offer (something to.someone);
i. ostavit' ACC/DAT - to leave (something to.somebody);
j. potrebovat ACC/s ACC – to demand (something from someone);
k. zaključit' pari/s INSTR – to place a bet with someone.

The example in (**??**) presents a Group 2 verb on its two alternating orders. Here, the order on which the Instrumental-marked phrase precedes the Accusative argument is scopally ambiguous, whereas the opposite order of arguments is surface scope frozen.

(15)

a. *Maša ugostila (kakim-to pečenjem) [každogo rebenka]*
Masha treated [some cookie]INSTR [every child]ACC
"Masha treated every child to some cookie" ∃∀/∀∃
b. *Maša ugostila [kakogo-to rebenka] (každym pečenjem)*
Masha reated [some child] ACC [every cookie]INSTR
"Masha treated some child to every cookie" ∃∀/*∀∃

What differentiates Group 2 from Group 1 is the obvious fact that with Group 2 the surface scope frozen order results when the Accusative argument QP precedes the Oblique-marked QP, whereas with Group 1 the frozen scope results when the Oblique-marked QP precedes the Accusative-marked QP, hence the two Groups are essentially a mirror image of each other with respect to scope.

(16)

below presents a number of verbs belonging to this class which showcases its characteristic properties:

(17)

a. oskorbit ACC/INSTR – to insult (someone with.something);
b. podvergnut' ACC/INSTR – to subject (someone to.something);
c. izobličit' ACC/v INSTR – to expose (someone in something);
d. zaščitit' ACC/ot ACC – to protect (someone from something/someone);
e. ozadačit' ACC/INSTR – to perplex (someone with.something);
f. obvinit' ACC/v ACC – to blame (someone for.something);
g. priznat'sja DAT/v ACC – to admit (to.someone in something);
h. ubedit' ACC/v ACC – to convince (someone in something);
i. predupredit' ACC/o ACC – to warn (someone about something);
j. otgovorit' ACC/ot ACC – to dissuade (someone from something);
k. sprjatat' ACC/ot ACC – to hide (someone from someone/something).

Finally, there are verbs that behave like neither of the above Groups. With Group 3 predicates the scope is free no matter which internal argument comes first. Consider the example in (**??**). Here, unlike with the other two Groups, the change in the linear order of quantificational internal arguments yields no truth conditional difference: the sentences remain scopally ambiguous.

(18)

a. Maša napisala [kakoj-to slogan] (na každoj stene)
Masha wrote [some slogan]ACC[PP on [every wall]PREP]
"Masha wrote some slogan on every wall" ∃∀/∀∃
b. Maša napisala (na kakoj-to stene) [každyj slogan]
Masha wrote [PP on [some wall]PREP] [every slogan]ACC
"Masha wrote every slogan on some wall" ∃∀/∀∃

(19)

below lists some of the verbs that belong to this group:

(20)

a. ostavit' ACC/v ACC – to leave (someone/something in something);
b. položit' ACC/na ACC or v ACC – to put (something on something or in something or somewhere);
c. otdat' ACC/DAT – to give away/to give back (something to.somebody);
d. zapisat' ACC/ v ACC or na/PREP – to write down (something in/somewhere or on something);
e. vyrastit' ACC/v PREP – to grow (something in/somewhere);
f. otpravit' ACC/na ACC – to send (something/somebody to something);
g. uslyšat' ACC or o GEN/ot ACC – to hear (about something/somebody from somebody);
h. izvleč' ACC/iz GEN – to extract (something from somewhere);
i. prisoedinit' ACC/k DAT – to annex/to attach (something to something);
j. zagnat' ACC/v ACC – to corner/to drive (someone in some place/somewhere);
k. vstavit' ACC/v ACC – to insert (something into something/somewhere).

The question that naturally arises then is how to analyze the three Groups, specifically to what should we attribute their differences in scope behavior? Under the results in **Antonyuk2015**, where I propose that scope freezing is due to crossing one QP over another in overt syntax and given SFG, the structural expectations for the three Groups of ditransitive predicates are clearly the following:

(21)

Group 1
V NP-ACC NP-OBL BASIC ORDER (amb)
V NP-OBL NP-ACC NP-OBL DERIVED ORDER (frozen)
↖_____/

(22)

Group 2:
V NP-OBL NP-ACC BASIC ORDER (amb)
V NP-ACC NP-OBL NP-ACC DERIVED ORDER (frozen)
↖_____/

(23)

| | | | |
|---|---|---|---|
| | Group 3 | | |
| V | NP-ACC | NP-OBL | BASIC ORDER (amb) |
| V | NP-OBL | NP-ACC | BASIC ORDER (amb) |

Thus, in Group 1 we expect the frozen NP-OBL > NP-ACC order to reflect raising of NP-OBL overtly over NP-ACC. In Group 2 we expect the frozen NP-ACC > NP-OBL order to reflect raising of NP-ACC over NP-OBL. In Group 3 we have at least two possibilities: either both orders are underived (i.e., base generated) or else one is in fact derived from the other, in a way that results in a configuration that fails to freeze scope.

Before we move on to the structural representations I propose for the three Groups, it is worth asking whether we can independently confirm that the Russian ditransitives do indeed subdivide into the three Groups as discussed above. It turns out there is a number of syntactic tests that the groups differ on. In particular, Groups 1 and 2, which are a mirror image of each other with respect to the scope freezing distribution, also show opposite behavior on a number of tests, briefly discussed below.

## 3 Syntactic evidence supporting ditransitive classification into three groups

The scope distribution data together with the SFG suggest that the structures of Groups 1 and 2 in particular should effectively be a mirror image of each other. Specifically, while the scope fluidity of ACC > OBL order for Group 1 suggests this is the base order, with the Accusative-marked argument projected higher in the structure, with the opposite order derived by overt QP movement, the scope fluidity of OBL > ACC order for Group 2 verbs suggests the opposite, namely a lower position for the Accusative-marked object. In Antonyuk (2015; 2017; 2018) I have justified the position that the Accusative-marked argument in the latter case cannot be a low direct object but is instead an Oblique argument that originates inside a silent Prepositional Phrase, with the P head case-marking the argument in its complement. Here I will briefly recapitulate the evidence from **Antonyuk2015** supporting this position and then present novel evidence that the low Accusative is indeed not a direct object, but a low Oblique argument.

### 3.1 The distributive *po* test

A classic test to use when the status of the direct object is in question is due to **Pesetsky1982**, who noted that direct objects of transitive predicates and subjects of unaccusative predicates may appear as objects of distributive *po* in Russian, while subjects of transitive and unergative predicates typically may not. Indeed, this test, applied to our examples shows that the objects of Group 2 predicates do not distribute, suggesting structural differences from objects of Group 1 and 3 verbs, which do.

• (24)–

*Učitel' podaril po tetradke každomu studentu* **Group 1**
Teacher-NOM presented po notebook-DAT [every student]ACC
"The teacher presented a notebook to every student"

(25)

**Maša ugostila po rebenku kakim-to pečenjem* **Group 2**
Masha-NOM treated po child-DAT [some cookie]INSTR
"Masha treated each child to a cookie"

(26)

*Maša napisala po sloganu na každoj stene* **Group 3**
Masha-NOM wrote po slogan-DAT [on [every wall]PREP]
"Masha wrote a slogan on every wall"

### • – 3.2 The Genitive of Negation test

**Pesetsky1982** also argued that Genitive of Negation can be used as a test of unaccusativity in Russian. Applying it to our data we again see a clear dichotomy between Group 1 and Group 2 verbs:
(27)

*Učitel' ne podaril tetradki* **Group 1**
Teacher NOM NEG presented notebook GEN.FEM
"The teacher didn't present a notebook"

(28)

**Maša ne ugostila podrugi* **Group 2**
Masha NOM NEG. treated. girlfriend GEN.FEM
"Masha didn't treat a friend"

(29)

*Maša ne. napisala zapiski* **Group 3**
Masha NOM NEG wrote. note GEN.FEM
"Masha didn't write a note"

The two tests strongly suggest that the direct objects of Groups 1 and 3 predicates behave like true objects while the supposed "direct objects" of Group 2 predicates apparently do not possess properties expected of true direct objects. This is fully in line with the proposal that the Accusative-marked objects of Group 2 verbs originate low, inside a PP whose null P head assigns lexical Accusative case.

- **– 3.3 Resultative constructions as an objecthood test in Russian**

Resultative Constructions have been argued to provide a (deep) unaccusativity test in English (Levin and Rappaport **Hovav1995**; cf. Rappaport **HovavLevin2001**; **Kratzer2005**):

(30)

a. Dawn pounded the dough flat (**Irvin2012**)
b. The carrot juice froze solid.
c. A bottle broke open.

In transitive sentences such as (**??**) resultatives can be formed from direct objects only and cannot occur with external arguments or with VP-internal oblique arguments. If the test is applicable to Russian, the prediction, given our results so far, is that only the predicates belonging to Groups 1 and 3 will participate in the formation of a resultative construction. If the "direct object" of Group 2 predicates is indeed not a true direct object, it will not be possible to form a grammatical resultative construction on the basis of Group 2 predicates. The sentences

below show that the prediction is correct: Group 1 and 3 predicates indeed allow a resultative that includes their direct object, while Group 2 predicates do not. [5]

**Group 1**

(31)

*Učitel' dodarilsja knig (do togo, čto ostalsja ni s čem)*
Teacher DO-present-REFL books to that remained not with what
"The teacher presented books until he was left with nothing"

(32)

*Maša dotrebovalas' povyšenija (do togo, čto ee prosto uvolili*
Masha DO-demand-REFL promotion-GEN (to that her simply fired
s raboty)
from work)
"Masha demanded a promotion to the point of getting herself fired"

**Group 2**

(33)

**Maša dougoščalas' podrug (do togo, čto vse popali v reanimaciju)*
Masha DO-treat-REFL friends (to that all got in ICU)
"Masha treated her girlfriends to the point of everyone ending up in ICU"

(34)

**Maša doobižalas' druzej (do. togo, čto ostalas' odna)*
Masha DO-insult-REFL friends-GEN (until that she remained alone)
"Masha kept insulting friends to the point that she had noone left"

**Group 3**

[5] There are several important differences to note: first of all, the result state expressed by the Russian construction in question holds of the subject, rather than the direct object. While this may initially suggest that the construction cannot be used as an unaccusativity test in Russian, I maintain that it can, specifically because the subject's result state comes about by manipulating the direct object in a way specified by the verb, and this is exactly why these examples are ungrammatical with Group 2 verbs.

(35)

*Maša dopisalas' sloganov (do togo, čto ee stil' načali*
Masha DO-write-REFL slogans-GEN (until that her style became
uznavat')
recognizable)
"Masha wrote so many slogans that her style became recognizable"

(36)

*Vanja dozagružalsja kirpičej (do polusmerti)*
Vania DO-load-REFL bricks-GEN (until half-death)
"Vania loaded bricks until he was half-alive"

Note that despite some obvious differences, the resultative construction exemplified above which I will dub "Russian Unaccusative Resultative" (RUR) bears many similarities to a construction **Tatevosov2010** refers to as a "Russian Intensive Resultative" (RIR) in (**??**), which in turn is very similar to the English Reflexive Resultative (ERR) (**??**).

(37)

a. *Turisty gulja-l-i.*
The tourists walked
b. **Turisty na-gulja-l-i-s'**.
Tourists NAwalkPST-PL-REFL
"By walking, the tourists achieved a state of being satisfied." The tourists walked.

(38)

a. The tourists walked.
b. **The tourists walked themselves tired**.

The similarities between RUR and Tatevosov's RIR (as well as the ERR) are listed below. First of all, the constructions in question create telic predicates:

(39)

a. *Turisty na-gulja-l-i-s' {za čas / *čas}* **RIR**
Tourists NAwalkPST-PL-REFL in hour/ *hour
"By walking, the tourists achieved a state of being satisfied." The tourists walked.

b. The tourists walked themselves tired {in an hour / *for a hour} **ERR**

(40)

a. *Maša dotrebovalas' povyšenija {za god/*god}* **RUR**
Masha DO-demand-REFL promotion$_{GEN}$in year/ *year
"Masha got herself a promotion in a year (by demanding it)"
b. *Vanja doprinosilsja [ploxix novostej] {za god/*god}(do togo, čto*
Vania DO-bring-REFL [bad news]$_{GEN}$ in year/ *year to that
*ego izbili)*
himbeat.up$_{PST.PL.IND}$
"Vania brought so much bad news in a year that he was beat up for it"
c. *Vanja dozagružalsja kirpičej {za čas / *čas} (do polusmerti)*
Vania DO-load_REFL bricks$_{GEN}$ in hour/ *hour (until half-death)
"In an hour, Vania loaded bricks until he was feeling half-dead"

Furthermore, as noted by Tatevosov, both RIR and ERR, combined with rate adverbials like 'quickly' fail to entail the truth of their non-derived counterparts modified by the same adverbial:

(41)

a. John walked quickly.
b. John walked himself tired quickly. (≠> John walked quickly.)

(42)

a. *Vasja bystro begal*
"Vasja ran quickly."
b. *Vasja bystro nabegalsja*
Vasia quickly NA-run-REFL
"Vasja ran himself into a state of being satisfied quickly". (≠>'Vasja ran quickly.')

Interestingly, RUR behaves in exactly the same way, with the resultative combined with rate adverbial failing to entail the truth of the non-resultative counterpart:

(43)

a. *Vanja. bystro zagružal kirpiči*
Vania NOM quickly loaded bricks ACC
b. *Vania bystro dozagružalsja kirpičej do polusmerti ≠> Vanja*
Vania quickly DO-load-REFL bricksGEN to halfdeath ≠> Vania
*bystro zagružal kirpiči*
quickly loaded bricksACC
"Vania quickly got himself into the state of being half-dead by loading bricks"

Tatevosov proposes that "the affixal nature of the result expression in Russian has straightforward consequences for its interpretation: in Russian, unlike in English, descriptive properties of a result state are underspecified". He demonstrates that the result state in RIRs that is obtained due to the lexical contribution of the resultative affix (*na-*) is a cancellable implicature:

(44)

*Turisty na-gulja-l-i-s' do iznemoženija.* (**Tatevosov2010**)
Tourists NA-walk-PST-PL-REFL to exhaustion
"By walking, the tourists achieved a state of being exhausted."

Unlike the prefix *na-* of RIR, which typically contributes a positive connotation, suggesting the subject enters into a pleasant state, the prefix *do-* of RUR typically contributes a negative connotation, suggesting the subject entered a negative state as a result of his or her actions, which is nevertheless also a cancellable implicature (cf. (??) and (??)):

(45)

a. *Maša dotrebovalas' povyšenija {za god/*god}*
Masha DO-demand-REFL promotion-GEN{in year/*year}
"Masha got herself a promotion in a year (by demanding it)"
b. *Maša dotrebovalas' povyšenija do togo, čto ee prosto*

Masha DO-demand-REFL promotion-GEN. to that her simply
uvolili
firedPST.PL.INDEF
"Masha got herself fired by demanding a promotion too much"

With respect to the crucial differences between RIR and RUR, it is important to note that **Tatevosov2010** argues that both RIRs and ERRs "refer to events in which a certain property of the participant undergoes a gradual change. This change leads the participant to the result state whose descriptive properties are fully specified in English and underspecified in Russian. In English, the participant undergoing change can and in Russian must be identical to the subject."[underlining is mine] The above view naturally explains another noted property of RIRs and ERRs, discussed by Tatevosov, namely the fact that both constructions exhibit parallel lexical restrictions and "tend to be licensed for the same classes of non-derived verbs, intransitive activity verbs or transitive activity verbs, but not for unaccusatives". Despite all the similarities with the RIRs, RURs are crucially different semantically in that the direct object in RURs either signifies the result state obtained through the action denoted by the verb, or crucially contributes to the result state by being the object manipulated to a degree that a certain result state obtains (see (**??**), for instance). Given their semantics, informally described above, RIR is incompatible with a direct object while RUR is ungrammatical without one. Interestingly, using the latter without the direct object renders the construction ungrammatical for Group 1 and 3 predicates, but dramatically improves the grammaticality of Group 2 predicates on the resultative meaning, with such sentences being perfectly acceptable on the RIR interpretation in which the resulting change necessarily describes the state of the subject:

(46)

**Group 1**:
a. **Maša dotrebovalas'*
Masha DO-demand-REFL

b. **Vania doprinosilsja*
Vania DO-bring-REFL

(47)

(48)

**Group 2:**
a. *Maša doobzivalas'*
Masha DO-insult-REFL

b. *Maša doobižalas'*
Masha DO-offend-REFL

**Group 3:**
a. **/??Maša dopisalas'*
Masha DO-write-REFL

b. **Vania dozagružalsja*
Vania DO-load-REFL

Thus, again, we see a clear dichotomy between Groups 1/3 and Group 2. The "direct objects" of the latter Group simply do not behave as such. Taken together, the three diagnostics discussed here provide strong evidence for the argument that Group 2 predicates do not in fact subcategorize for a direct object, as the Accusative-marked objects of such verbs do not exhibit syntactic behavior expected of direct objects. In the following section I will briefly discuss the structures I posit for the three Groups of Russian ditransitives that account for their syntactic behavior and QP scope distribution, in line with the Scope Freezing Generalization.

## • 4 The proposed structures for the three groups of Russian ditransitives

Given that Groups 1 and 2 are essentially the mirror image of each other with respect to scope behavior, with one order of internal arguments frozen and the opposite order scopally fluid, it makes sense to approach them in a similar fashion, with the same logic applying to both Groups. Specifically, taking the Scope Freezing Generalization as our background assumption, we are committed to the conclusion that the two orders of the predicates belonging to Group 1 and Group 2, despite their differences, are derivationally related. That is, both Group 1 and Group 2 verbs will require a derivational analysis of their base-generated structures.

### 4.1 Possible structures for group 1 predicates

To remind the reader, Group 1 predicates are those where scope is frozen on OBL > ACC order and free on the ACC > OBL order. Logically speaking, two kinds of analyses appear to be possible, given our underlying assumptions, but we'll only consider (**??**) to be a viable option here.[6] ,[7]

• (49)–

a. OBL has been overtly raised to an adjoined position.
b. OBL has been raised to Spec,ApplP.

With respect to (**??**), the only viable option is that in Figure **??**, supported by the placement of agent-oriented adverbs ("deliberately", "purposefully", "willingly", etc.), which are typically assumed to adjoin high to the vP where the Agent role is introduced or checked, as well as the lack of verb raising to T in Russian (cf. 48a vs 48b):

**Figure ??.**

Figure 1: Derived order of a Group 1 verb.

*Testing this prediction with a Group 1 predicate we get the following results:*

(50)

*a. Maša special'no potrebovala s Ivana dengi*
*Masha purposefully demanded from Ivan* GEN *money* ACC
*"Masha demanded money from Ivan"*

*b. *Maša potrebovala s Ivana special'no dengi*
*Masha purposefully from Ivan-*GEN *demanded money* ACC

[6] I assume that the frozen scope order is derived via overt movement and that in most cases ambiguous scope within the vP is an indicator of a base-generated order.

[7] A reviewer points out that raising into Spec, ApplP is an unjustified move since this would constitute raising into an argument position. This objection relies on assumptions that are not shared by all (see **Larson2014** for discussion). I will not develop the Raising-into-Spec,ApplP analysis here mostly due to space limitations.

*Note that the structure in Figure ?? is identical to that proposed for Russian ditransitives in **Bailyn1995**, (??) based on independent types of evidence, thus our conclusions here converge with previous research.*[8]

- **– 4.2 Possible structures for group 2 predicates**

*We have seen that assuming the correctness of SFG entails that the Accusative-marked object of Group 2 verbs must be generated lower than the Oblique-marked argument (see 49 below). I have proposed in **Antonyuk2015** that this is due to the fact that the low Accusative is not a true direct object, but is effectively an Oblique argument base-generated low inside a PP, with a silent P head assigning it lexical Accusative case.*

(51)

*V NP (ACC) NP-OBL NP (ACC) DERIVED ORDER (frozen) _____-_____/*

*Regarding the structural possibilities themselves, as was already noted, they appear to be quite similar to those available for Group 1 verbs:*

(52)

*a. [PP P DP$_{ACC}$ ] raises over OBL and adjoin to VP*
*b. [PP P DP$_{ACC}$ ] raises over OBL to Spec,ApplP.*

[8] The conclusions regarding the base-generated order of Group 1 (and Group 3) verbs also converge with the findings reported in **Titov2017**, who argues that once Information-Structural considerations licensing various derived word orders in Russian are controlled for, the "canonical" order of Russian ditransitive verbs emerges, that being the ACC > DAT order (see also Cepeda & Cyrino, this volume, for a similar conclusion regarding Spanish, European Portuguese and Brazilian Portuguese). Note, however, that the general results reported here contradict the conclusions of **Titov2017**, as it is shown here that there is no homogeneity among Russian ditransitives, with Group 2 verbs having a different base-generated order which is reflected in significant differences in their syntactic behavior, something Titov's account has nothing to say about. Thus, one of the verbs Titov discusses, *podvergnut'*, is a typical Group 2 verb, whereas Titov argues for the same ACC » DAT base order for this and all other verbs she considers and furthermore argues that these conclusions hold quite generally for all ditransitive predicates in Russian. To the extent that the conclusions reached in this paper are correct, however, they suggest that while controlling for Information Structure licensing may be necessary, it will not be sufficient to correctly determine verbal argument structure and that QP scope distribution patterns provide a more accurate diagnostic of internal argument structure.

*In terms of the Agent-oriented adverbs, the two Groups behave alike, which means analyses requiring high adjunction with concomitant v-to-T raising are highly unlikely:*

(53)

*a. Maša special'no obozvala [vrednogo malčika] (nexorošim*
*Masha purposefully called [capricious boy]ACC [bad*
*slovom)*
*word]INSTR*
*"Masha purposefully called a capricious boy with a bad word"*
*b. *Maša obozvala [vrednogo malčika] special'no (nexorošim*
*Masha called [capricious boy]ACC purposefully [bad*
*slovom)*
*word]INSTR*
*"Masha purposefully called a capricious boy with a bad word"*

*Given these considerations, the structure of a sentence such as (??) would seem to be something like in Figure ??, where the sentence contains two oblique complements (a DP and a PP).*

(54)

*a. Maša ugostila (kakim-to pečenjem) každogo rebenka*
*Masha treated [some cookie]INSTR[every child]ACC*
*"Masha treated every child to some cookie"* ∃∀/∀∃
*b. Maša ugostila [kakogo-to rebenka] (každym pečenjem)*
*Masha treated [some child]ACC [every cookie]INSTR*
*"Masha treated some child to every cookie"* ∃∀/*∀∃

***Figure ??.***

*Figure ??: Base order of a Group 2 verb.*

*The frozen order would then be derived by fronting the PP, presumably by left-adjoining it to VP as in Figure ??.*[9]

***Figure ??.***

*Figure ??: Derived order of a Group 2 verb.*

*Incidentally, there is further evidence for the proposal that Group 2 predicates involve two oblique phrases. Consider (??):*

[9] In Figure ?? the lower PP copy is of course taken to be silent.

(55)

*a. Maša pobesedovala na kakuju-to temu) [s každym*
*Masha talked. [$_{PP}$ on [some topic]$_{ACC}$ ][$_{PP}$ with [every*
*drugom]*
*friend]$_{INSTR}$]*
*"Masha had a conversation on some topic with every friend"* ∃∀/∀∃
*b. Maša. pobesedovala [s kakim-to drugom] (na každuju-to*
*Masha talked [$_{PP}$ with [some friend]$_{INSTR}$] [$_{PP}$ on [every*
*temu)*
*topic]$_{ACC}$]*
*"Masha had a conversation with some friend on every topic* ∃∀/*∀∃

*The example in (??) contains a ditransitive predicate with two overt quantificational PPs, with one of those Ps assigning Accusative case. Thus, this example is fully analogous to what I suggest for Group 2 predicates, the only difference being that the preposition assigning Accusative is overt in (??) but covert in all the other cases we've seen in this section. Finally, the strongest piece of evidence in support of the proposal that there is in fact a null P assigning Accusative case in a low position in Group 2 predicates is examples such as (??):*

(56)

*a. Maša otrugala (za kakuju-to ošibku) [každogo druga]*
*Masha scolded [$_{PP}$ for [some mistake]$_{ACC}$] [every friend]$_{ACC}$*
*"Masha scolded every friend for some mistake"* ∃∀/∀∃

*b. Maša otrugala [kakogo-to druga] (za každuju ošibku)*
*Masha scolded [some friend]$_{ACC}$ [$_{PP}$ for [every mistake]$_{ACC}$]*
*"Masha scolded some friend for every mistake"* ∃∀/*∀∃

*What is interesting about this example, and of utmost importance for the structural analysis advanced here, is the following: this ditransitive verb "otrugat'' ('to scold') selects two Accusative-marked objects, one Oblique, occurring inside an overt Prepositional Phrase and one which looks like a regular direct object Accusative. However, the scope pattern that we find with this pair of examples, specifically the frozen scope status of (??), suggests that (??) is the derived order, that is, what looks like the regular direct object Accusative must have originated below the Accusative that is inside the PP. This, of course, on my assumptions suggests that the "regular"*

*direct object Accusative in (??) is in fact a concealed low Oblique Accusative, which originates inside a null PP and thus gets its case from a null P head. Significantly, the above "direct object" Accusative argument does not do well on the objecthood tests discussed before:*

(57)

*a. *Maša otrugala po drugu za každuju ošibku*
*Masha scolded po friend-DAT [$_{PP}$ for [every mistake]ACC ]*
***Distributive po test***
*b. ??Maša ne. otrugala podrugi* ***Genitive of Negation***
*Masha NEG scolded girlfriend-GEN*

*c. *Maša dorugalas'. druga do togo, čto on ušel* ***RUR***
*Masha DO-scold-REFL friend to that that he left*
*"Masha scolded her friend into leaving"*
*d. Maša dorugalas'* ***RIR (Tatevosov2010)***
*Masha DO-scold-REFL*
*"Masha scolded her way to some negative result"*

*As the above tests show, the Accusative-marked object does not behave as would be expected of a true direct object: it does not allow the distributive po phrase, is strongly degraded in the Genitive of Negation configuration and the Unaccusative Resultative built on it is ungrammatical while the Intensive Resultative is, as expected. The conclusion is therefore that this particular predicate does not subcategorize for a direct object but instead takes two Oblique arguments, one of which is an overt PP, with the preposition za marking its complement with lexical Accusative case, and another oblique argument which is also assigned lexical Accusative case, by a silent P head.*[10]

[10] In Antonyuk (in prep.) I show that while not all psychological verbs (**BellettiRizzi1988**) allow alternating (causative) ditransitive forms, those that do necessarily form Group 2 ditransitives. Note further that while the homogeneous behavior of Group 2 verbs with respect to the unaccusativity diagnostics suggests a certain homogeneity within the Group in terms of syntactic structure, it is certainly not the case that all Group 2 verbs are psych verbs. Thus to the extent that theories arguing that the Causer argument is generated in Spec, vP while the Agent is generated in Spec, VoiceP, (see **Kratzer2005** and **AlexiadouEtAl2006** i.a.), the verbs belonging to Group 2 are expected to differ with respect to the position of the higher internal argument (e.g., Spec, VP for non-Causers/Themes vs Spec,vP for Causers).

- – **4.3 Structural possibilities for group 3 predicates**

*With regard to Group 3 predicates, there are two major possibilities: independent projection or a derivational relation between the two alternating orders of internal arguments. While the scope ambiguity of both orders, coupled with SFG might suggest that the two orders are independently projected, I argue this is not the case. Consider (??):*

(58)

*a. Job blamed [God] [for his troubles] (**Larson1990**)*
*b. Job blamed [his troubles] [on God]*

*What makes these good candidates for independent projection is the fact that along with the change in the order of the two internal arguments, there is also clearly a change in grammatical relations, with 'God' being a DO in (??) but an oblique in (??). As noted by Richard Larson (p.c.), the corresponding examples with quantificational phrases are both ambiguous, as expected under my analysis:*

(59)

*a. John blamed some employee for every mistake.* ∃∀,∀∃
*b. John blamed some mistake on every employee.* ∃∀,∀∃

*Native speakers apparently also perceive an additional semantic distinction between these, as well, with (??) being notationally related to (??), and (??) being related to locatives, as in (??):*

(60)

*a. John thanked some employee for every success.*
*b. John gave/offered thanks to some employee for every success.*

*The fact that the thematic roles involved in the two alternations are different in the above cases supports the idea that they are not derivationally related. This poses a problem for the non-derivational account of Group 3 ditransitive alternations since in none of them can a parallel difference in thematic roles be detected. The only differences seem to be related to the information structural status of the two internal arguments, with their thematic roles always staying the same. Thus, it is worth considering other alternatives. With independent projection arguably ruled out and*

*the movement of the kind implicated with Groups 1 and 2 being excluded by the fact that both orders are scopally ambiguous, I suggest that orders such as (??) are derived via Light Predicate Raising (LPR) (following* ***Larson1989****; 2014).*

(61)

*a. Maša napisala [kakoj-to slogan] (na každoj stene)* ∃∀/∀∃
*Masha wrote. [some slogan]$_{ACC}$ [$_{PP}$ on [every wall]$_{PREP}$ ]*
*"Masha wrote some slogan on every wall"*
*b. Maša napisala (na kakoj-to stene) [každyj slogan]* ∃∀/∀∃
*Masha wrote [$_{PP}$ on [some wall]$_{PREP}$] [every slogan]$_{ACC}$*
*"Masha wrote every slogan on some wall"*
*Consider the derivation of (??) in Figure ?? below:*
***Figure ??.***
*Figure ??: Derived order of a Group 3 verb.*

*As evident from structural relations in Figure ??, what is crucially important in relation to my analysis is that the LPR configuration does not lead to a situation where the raised PP/DP is able to c-command the other phrase, by virtue of the interfering v/V' node, thus accounting for the lack of scope freezing in these examples.*

*While adopting Larson's LPR analysis provides a straightforward way to account for the lack of scope freezing with Group 3 verbs, in the absence of an independent motivation for the application of such LP Raising with verbs belonging to this group, its adoption here to account for the apparent violation of the SFG with these verbs might seem too stipulative to be persuasive. However, I will argue here that Group 3 predicates are different from those in Group 2 and even from the very similar Group 1 verbs in important respects which explains their syntactic behavior. A careful examination of Group 3 verbs listed in (??) reveals that all such predicates (to the exclusion of a few verbs to be discussed shortly) share the property of taking a direct object marked with structural Accusative case and a Preposition Phrase. I argue that it is precisely the nature of the PP complement that plays the crucial role here and provides an explanation for the observed differences between Group 1 and Group 3. The limited class of PPs observed with Group 3 predicates can be characterized as sharing the property of signifying either direction (of movement) or location (v/in, na/on, ot/from, iz/from/ k/to or towards). Thus, Group 3 is crucially similar to Group 1 verbs in subcategorizing for a direct object DP marked with structural Accusative case, but unlike Group 1 verbs, Group 3 verbs take a locational/directional PP complement (whereas Group 1 verbs take a Dative case-maked DP complement or a PP*

*which takes a relational preposition (s/from, s/with, dlja/for). To put this into terminology used in research on prepositional phrases, Group 3 PPs are those where the P introduces the Ground argument (see* ***Svenonius2003****, 2007 and related research). Group 1 prepositional heads, being strictly relational, do not. Finally, another similarity between Groups 1 and 3 which at first glance might suggest that the above differentiation is unjustified, is due to the fact that some verbs classified as Group 3 are verbs like otdat' (to give away, to give back), which take an ACC-marked THEME and a DAT-marked GOAL argument, just like the numerous ACC/DAT verbs that belong to Group 1. Otdat', in fact, is related to the verb dat' (give), which is a canonical Group 1 ditransitive that exhibits scope freezing on the DAT>ACC order of internal arguments (also discussed in* ***BonehNash2017****). As discussed in* ***Antonyuk2015****, such Group 3 verbs present particular difficulties during classification attempts due to showing strong surface scope bias on DAT>ACC order, which often leads to their initial misclassification as Group 1 verbs. However, additional tests, such as the use of Constrastive Focus (****AntonyukLarson2016****) help establish that they are in fact Group 3 verbs. Here I argue that the (lexical) prefixes verbs such as otdat' occur with is the very reason they behave as Group 3 verbs, unlike their unprefixed Group 1 counterparts. The prefixes taken by Group 3 verbs are crucially distinct from whatever prefixes (if any) may be found with Group 1 or Group 2 verbs in signifying direction/location, just like the PPs that occur as complements of Group 3 verbs do. The unified semantics of the class of the prepositions and prefixes that appear with Group 3 verbs suggests a natural way of explaining their behavior. If prepositions and prefixes are both elements of category P (****Matushansky2002****;* ***Biskup2017****; and esp.* ***Svenonius2004****, 2008), then one might argue that the empirical observation that locational/directional prepositions behave in some sense as being closer to the verb than other prepositions (including preposition to in English which occurs in PP Dative constructions)*[11] *may be explained by the need of such prepositions (and the PPs they project) to occur at LF as syntactic units with the verb. There are two ways in which this can be achieved: either the PP raises and attaches to the verb at LF (which is arguably what happens with Group 3 verbs on their basic order), or the verb raises to its position inside the vP together with the PP, which is exactly what happens in cases of Light Predicate Raising. If the latter option is employed, scope freezing does not take place and the lower QP is then free to raise above the structurally higher one at LF, which then accounts for the ambiguous nature of the derived word order with Group 3 predicates, but not with Group 1 and 2. Thus, while the account sketched here needs to be fleshed out, it suggests an intuitive explanation for why Group 3 verbs pattern differently from Groups 1 and 2 as far as QP*

[11] As pointed out to me by Larson (p.c.).

*scope is concerned.*

## • 5 Conclusions

*I have argued that the argument structure of ditransitives can be studied by considering their quantifier scope ambiguity and scope freezing distribution patterns. Assuming the Scope Freezing Generalization is correct and using it to probe argument structure affords us novel insights and suggests that Russian ditransitives are not a homogeneous group, but in fact subdivide into three distinct Groups, each associated with a distinct structure and a distinct set of properties. Most importantly, however, the data discussed here provide strong evidence that not all "direct objects" are in fact true direct objects with expected properties: the data presented here suggest that a whole group of such objects are in fact concealed Obliques. The derivational account of Russian ditransitives offered in this paper has a number of important consequences, with implications for argument structure, verbal alternations, the status of directional/location PPs as a natural class, the notion of ditransitivity and the status of Light Predicate Raising in the grammar that are left largely without discussion due to space limitations.*[12]

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[12] Note that Cepeda & Cyrino (this volume) and Cornilescu (this volume) similarly offer derivational accounts of ditransitives in Spanish, European Portuguese, Brazilian Portuguese and Romanian respectively. To the extent that these papers focus on the more prototypical ditransitives that on my account belong to Group 1 predicates where I argue ACC > DAT or DO > IO order is base-generated, our conclusions seem to converge. Cepeda and Cyrino (this volume) additionally argue that Spanish, European Portuguese and Brazilian Portuguese do not have a DOC, primarily based on the fact that IOs do not passivize in these languages. While passivization is not discussed in my paper, IOs in Russian (and East Slavic more generally) do passivize, thus pointing to a genuine difference in this respect between the languages under consideration.

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# Chapter 3

# Ditransitive constructions: what sets Brazilian Portuguese apart from other Romance languages?

Ana Regina Calindro

**Ditransitive constructions: what sets Brazilian Portuguese apart from other Romance languages?**

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***Abstract***. *The aim of this paper is to discuss whether a particular diachronic change in the expression of indirect objects (IOs) in Brazilian Portuguese (BP) has set this language apart from other Romance languages. Since the 19$^{th}$ century, BP has been generalizing the use of the preposition* para *'to' in ditransitive sentences with verbs of movement, transfer and creation. Moreover, the morphological counterpart of the dative argument in the third person (the clitic* lhe(s)*) has been replaced by other strategies, while in European Portuguese (EP), IOs in the same contexts are introduced by the dummy preposition a and can always alternate with* lhe(s). *According to Torres* ***Morais2007****, these IOs in EP are dative arguments introduced by an applicative head, as also argued by* ***Cuervo2003*** *for Spanish, and* ***DiaconescuRivero2007*** *for Romanian. In this paper, I will propose that the ditransitive sentences in BP have a different structural representation from other Romance languages, given that it cannot express dative case in the third person anymore, nor via functional prepositions, nor by the clitic* lhe(s). *Consequently, I propose that the IOs in BP should be introduced via a p head, based on the proposals of Svenonius (2003, 2004),* ***Wood2012*** *and the i* single argument introducer proposal by* ***WoodMarantz2017****.*

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**Keywords**: *ditransitive sentences, Case assignment, prepositional heads, Brazilian Portuguese.*

**1. Introduction**

The aim of this paper is to discuss whether a diachronic change in the expression of indirect objects (IOs) in Brazilian Portuguese (BP) has set this language apart from other Romance languages, in terms of how IOs are structured.

Since the 19th century, BP has been generalizing the use of full prepositions as *para* 'to' in ditransitive sentences with verbs of transfer and movement (cf. 1) and creation (cf. 2) (cf. **Freire2005**; Torres **MoraisBerlinck2006**; Torres **MoraisSalles2010**)

(1)

Maria enviou uma carta *para/ a o João* / *para ele.*
Maria sent a letter P *para (to)*/ *a (to)* the João. OBL / to him.3SG

(2)

Maria preparou o jantar *para o João* / *para ele.*
Maria prepared the dinner $P_{para(to)}$ the João.OBL / for him. 3SG

In addition, the third person dative argument counterpart (clitic *lhe(s)*) has been replaced in BP by other strategies, such as 3rd person pronouns preceded by *para*: *para ele(s)/ ela(s)* 'to him/ her/ them', as we can see in the examples above.

Conversely, in the relevant context, IOs in European Portuguese (EP) are introduced by the preposition *a* and can always alternate with *lhe(s).*

(3)

A Maria enviou uma carta *ao João* /enviou-*lhe* uma carta.
The Maria sent a letter P *a (to)* the João. DAT / sent -3SG.DAT a letter.

Regarding argument structure representation, ditransitive constructions have always been a challenge for Chomsky's (1981, 1986) binary-branching model. The two first attempts to deal with the issue were **Baker1988**'s (**Baker1988**) incorporation hypothesis and **Larson1988**'s (**Larson1988**) VP shells proposal for the Prepositional Dative Construction (PDC) 'Mary gave a book to John' and the Double Object Construction (DOC) 'Mary gave John a book' in English. This phenomenon is known as the *dative alternation.*

Conversely, **Marantz1993** proposes an applicative head to introduce IOs in DOCs, building on the analysis of Bantu languages, which accounted for the absence of prepositions in DOCs (cf. **AlsinaMchombo1993**). Following this work, **Pylkkänen2002** established there are two types of applicative constructions (low and high applicatives), which are able to explain different semantics conveyed by IOs in certain ditransitive sentences.

Based on these proposals, **Cuervo2003** and **DiaconescuRivero2007** show Spanish and Romanian also have the *dative alternation*. These analyses, however, differ from the ones for English ditransitives – which are based on the presence or absence of a preposition. According to the aforementioned authors, the *dative alternation* in Romance languages depends on the presence or absence of the clitic in the structure[1]. Hence, in Spanish and Romanian, the DOC is characterized by the IO being doubled by a dative clitic, which is the head of ApplP (cf. 4 and 5):

(4)

a. Pablo *le* mandó un diccionario *a Gabi.*
Pablo 3SG.DAT sent a dictionary to Gabi.DAT
a'. [$_{\text{VoiceP}}$ Pablo [$_{v'}$ voice [$_{\text{VP}}$ mandó [$_{\text{ApplP}}$ a Gabi [$_{\text{APPL'}}$ *le* [$_{\text{DP}}$ un diccionario]]]]]]
(**Cuervo2003**)

(5)

a. Mihaela *îi* trimite *Mari**ei*** o scrisoare.
Mihaela DAT.CL sends Mary.DAT a letter
a'. [$_{\text{VoiceP}}$ Mihaela [$_{v'}$ voice [$_{\text{VP}}$ trimite [$_{\text{ApplP}}$ Mariei [$_{\text{APPL'}}$ îi [$_{\text{DP}}$ o scrisoare]]]]]]
(**DiaconescuRivero2007**: 2)

Configurations (5a') and (6a') show the dative argument in SpecApplP. The DO is licensed as its complement and ApplP is the complement of the verb. Therefore, following **Pylkkänen2002**, the applicative head below the verbal root accounts for the *low applicative* – which is responsible for relating two DPs that establish a relation of direct transfer of possession. As we can see in (5a') and (6a'), the clitic is the Spell-out of ApplP, as it is responsible for lexicalizing the DP person and number features in SpecApplP.

[1]For an alternative perspective, cf. Cépeda & Cyrino (this volume), who assume structures with *give*-type verbs in Spanish, EP and BP are not DOCs. The authors claim dative clitics do not play any role in determining the structural position of DO and IO in these constructions.

Additionally, the DOC in Spanish is characterized in terms of the IO being accompanied by a preposition (*a Gabi/ a-DP*), which is a dummy element responsible for assigning dative Case to its argument. This IO is necessarily doubled by a dative clitic.

For Romanian, **DiaconescuRivero2007** present two DOC examples (**??**) and (**??**), the latter is similar to (**??**) in Spanish, as the dative IO (*la Maria*) is doubled by the dative clitic (*îi*).

(6)

Mihaela *îi* trimite *la Maria* o scrisoare.
Mihaela DAT. CL sends to Maria.DAT a letter.
(**DiaconescuRivero2007**: 14)

According to the authors, sentence (**??**) is not part of the grammar of all speakers of Romanian. However, this example added to the assumption that when IOs are doubled by clitics in Romance languages, they are actually a-DP, not PP.

Pursuing the idea that clitics paired with IOs, which are actually a-DPs, is the key to understanding the *dative alternation* in Romance, Torres **Morais2007** assumes EP also presents this phenomenon. In sentences like (**??**), the preposition *a* in EP would also be a functional element responsible for assigning dative Case to DPs, as **Cuervo2003** proposes for Spanish (cf.4). Consequently, the possibility of replacing the IO by a dative clitic suggests this element is the morphological expression of the dative case introduced in SpecApplP as a proper argument (cf. 7).

(7)

[$_{vP}$ O João [$_{v'}$ *v* [$_{VP}$ enviou [$_{ApplP}$ à Maria/lhe [$_{APPL'}$ Ø [$_{DP}$ uma carta]]]]]]]
(Torres **Morais2007**: 175)

Another important fact for the dative alternation in EP is when the IO is introduced by *para*, with pure locatives for instance, it cannot alternate with the dative clitic *lhe(s):*

(8)

A Maria enviou (*lhe) uma carta *para Lisboa.*
The Maria sent (3SG.DAT) a letter P$_{para(to)}$ Lisbon.OBL

(Torres **Morais2007**:96)

Therefore, sentence (**??**) is considered a Prepositional Dative Construction (PDC) by Torres **Morais2007**. Additionally, in Spanish, **Cuervo2003** considers (**??**) a PDC, because preposition *a* is not doubled by the dative clitic. Hence, the IO is introduced by a proper preposition that assigns oblique Case to its complement

(9)

Pablo mandó un diccionario *a Barcelona*.
Pablo sent a dictionary P *a(to)* Barcelona.OBL
(**Cuervo2003**)

If the presence of dative clitics is the main argument to support the idea that Romance languages have the *dative alternation*, it is worth noting that BP has been undergoing a diachronic change regarding its pronominal system since the 18$^{th}$ century. This is associated with the loss of third person clitics (cf. **CarvalhoCalindro2018**), as well as several changes in the prepositions used to introduce IOs, as we will discuss further in this paper. These two facts combined are the central idea for assuming BP seems to be setting different parameters from other Romance languages concerning Case assignment.

On this basis, given this pronominal system reconfiguration in BP, I assume this language is undergoing a change related to Case assignment, because dative case cannot be assigned via a functional preposition any longer (preposition *a*), nor by its 3$^{rd}$ person morphological counterpart (*lhe(s)*). Consequently, BP seems to be shifting from a type of language, which had morphological case for all persons in the accusative and the dative, as EP still does, to one where Case has to be assigned via lexical prepositions.

In order to answer my main research question focusing on the differences between BP and the other Romance languages exemplified, I will analyze how BP expresses IOs both in the pronominal and prepositional phrase forms using data from previous works. First, through the analysis of the Brazilian pronominal system, which has been undergoing several changes since the 18$^{th}$ century (**KatoEtAl2009**). Next, based on Calindro (2015, 2016), I will show the prepositions that introduce IOs with transfer/movement and creation verbs in BP have a different status from the ones in Spanish, Romanian and EP. Hence, the structural representation of IOs in BP should be different from the other Romance languages analyzed, once the items involved in these structures have different status.

Bearing these facts in mind, this paper is structured as follows: §**??** analyses

in more details the variation and change that BP has undergone, in §?? regarding the pronominal system and in §?? regarding the prepositions that introduce IOs in BP; in §??, I propose a theoretical account of the sentences with verbs of transfer and movement in BP with a pP head and the universal i* introducer (cf. **Wood2012**; **WoodMarantz2017**); in §??, I present a similar proposal for sentences with creation verbs; and finally, in §??, conclusions are presented.

**2. Diachronic change in ditransitive sentences in BP**

The pronominal system in BP has undergone modifications since the 18$^{th}$ century (cf. **KatoEtAl2009**). The table below shows the change for accusative and dative paradigms. The accusative data was adapted from **KatoEtAl2009**, the dative paradigm was added based on **Calindro2015** and Torres **MoraisBerlinck2006** who have observed the loss of the clitic *lhe* in Portuguese from São Paulo state, as well as the work of **Berlinck1997** for Curitiba, **Silveira1999** for **FlorianopolisFreire2005** for Rio de Janeiro.[2]

| | **19$^{th}$ Century** | | | **20$^{th}$ Century** | |
|---|---|---|---|---|---|
| | ***Nominative*** | ***Accusative*** | ***Dative*** | ***Accusative*** | ***Dative*** |
| **1$^{st}$** | eu | me | me | me | me |
| **2$^{nd}$** | (tu) | te | te | te | te |
| **3$^{rd}$** | ele (a) | o/a | lhe | ___ | ___ |
| **1$^{st}$** | nós | nos | nos | nos | nos |
| **2$^{nd}$** | (vós) | vos | vos | ___ | ___ |
| **3$^{rd}$** | eles (as) | os/as | lhes | ___ | ___ |

*Figure ??. 19$^{th}$ century clitics vs. 20$^{th}$ century clitics*

According to **Kato2005**, in modern BP, both third person accusative and dative clitics are productive only in formal registers, suggesting they are not part of BP's core grammar anymore. Therefore, Brazilian children do not acquire them during the language acquisition process. These clitics, and also the preposition *a,* are taught at school as the prescriptive formal written and spoken Portuguese extensively based on EP register (cf. **KatoEtAl2009**). However, as we will see further in the text, even though in the context of transfer/movement preposition *a* is recovered through schooling, it has a different status from EP. Additionally, 3$^{rd}$ person accusative clitics are recovered, but third person dative clitics are not (cf. 1 and 2), neither is the use of preposition *a* to introduce IOs with creation

[2]The dative clitic *lhe* is still active in some areas of Brazil, but it was re-categorized as second person (cf. Figueiredo **Silva2007**).

verbs (cf. 2).

Therefore, Figure **??** illustrates that first and second person clitics remain in spoken and written language whereas the third person ones do not. According to **Galves2018**, 1st and 2nd person clitics have dative morphology, but the dative case itself does not exist in the language any longer, so, in these contexts, their interpretation relies on a local relation with the verb. In these instances, where the clitics were lost, Case is assigned structurally via transitive prepositions (cf. Torres **MoraisSalles2010**; **Calindro2015**, 2016; **CarvalhoCalindro2018**). Hence, BP is no longer a language which presents morphological dative case for all persons, as EP still does. Below I examine this in more detail.

As exemplified in (**??**), all 3rd person clitics were substituted for other strategies (lexical prepositions + full pronouns) probably because the case assigners, v for the accusative clitic, and Appl for the dative clitic, cannot assign case to these clitics anymore (cf. **CarvalhoCalindro2018**). Thus, the loss of 3rd person clitics in BP reflects a system in which v and Appl cannot value case, so alternative structures take over, such as: zero pronouns (null objects), independent Case assigners (PPs) and default pronouns (*ele),* which have the same form for NOM/ACC). Hence, in the 20th century, sentences (**??**) and (**??**) below, with a null object and with an overt full pronoun respectively, became felicitous answers to the question – *Você viu o Pedro ontem?* 'Did you see Pedro yesterday?'. By contrast, the answer in (**??**), with the accusative clitic, was the only legitimate one in the 19th century.

(10)

a. Vi-*o* na biblioteca. (19th century)
(I) saw- 3SG. ACC in.the library
b. Vi Ø na biblioteca (20th century)
(I) saw – Ø in.the library
c. Vi *ele* na biblioteca (20th century)
(I) saw he.3SG. NOM in.the library
'I saw him in the library'
(**CarvalhoCalindro2018**: 94)

This variation in BP is evidence this language is taking a different path from other Romance languages concerning case assignment, i.e., BP has lost inherent Case assignment, mainly in 3rd person contexts, in favor of structural Case assignment (cf. **Calindro2015**; **CarvalhoCalindro2017**). So, if BP is different from other Romance languages that introduce IOs via ApplP, how does BP introduce

IOs in the argument structure? In the next section, I will demonstrate that the prepositions which introduce arguments in BP are different from EP. Next, I will propose a representation for ditransitive sentences in BP.

**2.1. Preposition change in BP**

Several works have shown that historically, at the same time the dative clitic *lhe* disappeared, the preposition *a* was completely replaced by *para* with creation verbs in BP. In this context, when the preposition *a* introduces IOs, the sentences become ungrammatical for Brazilian speakers:

(11)

A Maria preparou o jantar *ao João* / preparou-lhe o jantar. (EP/ *BP)

The Maria prepared the dinner P $_{a\ (to)}$ the João. DAT / prepared-3SG.DAT the dinner.

According to the literature, BP speakers prefer *para* in spoken language (Torres **MoraisBerlinck2007**). In order to confirm this fact in written language, **Calindro2015** analyzed data collected from a book, which comprised 223 first pages from *Folha de São Paulo* – a major Brazilian newspaper – that spans the 20$^{th}$ century from 1920 to 2010. The author attested preposition *a* disappeared with creation verbs in the 60s. In the context of verbs of transfer and movement, however, *a* and *para* still vary throughout the century. Therefore, it was important to verify the contexts in which this variation occurs.

As mentioned before, **Kato2005** observed the preposition *a* is recovered through schooling. However, as the data show, the preposition *a* used by Brazilians is not the same in EP found in modern EP.

First of all, differently from EP, IOs introduced by *a* in BP do not alternate with all dative clitics, as discussed previously. Second of all, this preposition has spread its use to contexts where they are ungrammatical in EP.

For instance, in EP, the preposition *para* is used in two situations. Firstly, it is mandatory with a locative that cannot alternate with a dative clitic (cf. 8). Secondly, when the IO is introduced by *para* in EP, according to Torres **Morais2007**, there is a semantic difference in its interpretation. In (**??**), differently from (**??**), the interpretation is that the transfer of possession is indirect, i.e., in (**??**) *the letter* was sent directly to *João*, while in (**??**), *the letter* was first sent to someone else, then to *João*, as in (**??**) that clearly states the transfer was done by someone else – *Pedro*. Therefore, the IO *para o João* cannot be replaced by *lhe*[3].

[3]I would like to thank an anonymous reviewer for suggesting example (**??**), in order to make my discussion clearer.

| | | | | |
|---|---|---|---|---|
| **(??)** | a. A Maria | **enviou (*lhe)** | uma carta | *para o João.* |
| | The Maria | sent (3SG.DAT) | a letter | $P_{para}$ *(to) João*.OBL |

(Torres **Morais2007**: 96)

(12)

a. A Maria enviou uma carta para o João pelo Pedro.
The Maria sent a letter $P_{para}$ *(to) João*.OBL by Pedro.
a'. A Maria enviou (*lhe) uma carta pelo Pedro.
The Maria sent (3SG. DAT) a letter by Pedro.

Sentences (**??**), (**??**) and (**??**) would be examples of PDCs in EP, as part of the *dative alternation* mentioned in the introduction. The impossibility of the alternation between IOs in these examples with the 3rd person dative clitic is the main evidence for Torres **Morais2007** to propose they do not bear dative case, but structural oblique Case in EP.

As for BP, IOs introduced with either *para* or *a* have the same semantic interpretation[4]. Example (**??**) shows the preposition *a* can also be used to introduce locatives in BP, differently from EP, where *para* has to be used to introduce locatives (cf.8). Moreover, the ungrammaticality of *a* to introduce locatives found in EP, does not hold for BP - cf. (**??**) from the corpus studied by **Calindro2015**, in which a locative *Bosnia* is introduced by *a* in modern BP:

(13)

Atacado comboio que levava ajuda *à Bósnia.*
Attacked trains that sent aid $P_{a}$ *(to) Bosnia.OBL*
'The trains that sent aid to Bosnia were attacked'[5]

Therefore, the two prepositions *a* and *para* in BP share the same semantic status, indicating that *a* is no longer a dative marker as it is in EP DOCs (cf.3

[4]This alternation occurs in written language, as attested by **Kato2005** and **Calindro2015**, after the preposition *a* is recovered through schooling. Therefore, in the language acquisition process, only *para* is available to the child. I would like to thank an anonymous reviewer of this paper, who called my attention to this fact.

[5]This example was taken from the front page of *Folha de São Paulo*, published in 16/8/1992.

and 67). Therefore, a Brazilian child acquiring language in this context does not access this semantic difference shown in (**??**) for EP.

Thus, I assume that the existence of the lexical preposition *para* in EP (cf.8, 12 and 13) enabled the reanalysis discussed above for BP which led to parametric variation between these two varieties. I hypothesize that the presence of the preposition *para* in the inventory of possibilities to introduce IOs in EP and, therefore, historical BP, coupled with the loss of dative *lhe* was the trigger for Brazilian children to generalize the use of *para* to all Locatives, Goals and Beneficiaries. Additionally, after school, Brazilians generalize the use of *a* with Locatives and Goals[6]. This fact can be viewed as an example of *Input Generalization* in **Chomsky2005**'s (**Chomsky2005**) terms. According to the author, parametric variation emerges from the interaction of an underspecified Universal Grammar, Primary Linguistic Data and the Third Factor. **BiberauerRoberts2015** observed *Feature Economy* and *Input Generalization* are the main manifestations of the Third Factor. Hence, in the case of BP, Brazilians generalized the use of *para* to all the other contexts described previously.

Hence, in the language acquisition process in BP there is no longer the same evidence for inherent Case in the third person as there is in EP (i.e. the dative clitic *lhe(s)*). Morphological case has been substituted by structural Case through IOs such as *para/a ele (a)(s)* (cf. 1 and 2). The consequences of this change associated with the re-categorization of the 3$^{rd}$ person dative clitic *lhe(s)* as 2$^{nd}$ person has resulted in the loss of dative arguments introduced by an applicative head in BP[7].

Consequently, BP is different from other Romance languages[8], once the ApplP in BP presumably does not bear the phi-features to enter in an Agree relation with the dative clitic, so that the language has resorted to an alternative strategy, in which an independent Case assigner (*p*P) assigns Case to a DP (cf. **Calindro2015**, 2016), as it will be discussed in the next section.

[6]Preposition *a*, however, is not used in BP to introduce *beneficiaries*. For more details, cf. Calindro, 2015.

[7]**Pujalte2010** also claims BP does not have applicative phrases. Her analysis, however, is based on a specific dialect from the state of Minas Gerais (PBM), where sentences such as 'A Maria deu o livro o Pedro' lit. 'Mary gave the book the Pedro'. My analysis and Cépeda & Cyrino's are based on a vaster register of Portuguese in order to make claims regarding the status of the ditransitive sentences in BP. For more on PBM cf. Scher, 1996 and Torres **MoraisSalles2010**. I would like to thank an anonymous reviewer for mentioning Pujalte's work.

[8]Cépeda & Cyrino (this volume) develop a unified analysis for Spanish, EP and BP. The authors assume these languages do not have DOCs, hence, they do not have ApplP as well. Even though, in this paper I am assuming authors who defend applicative heads for Spanish and EP, my hypotheses is mainly that BP does not show the same characteristics. Therefore, my analysis can give support for Cépeda & Cyrino's proposal, at least for BP.

**3. An analysis for ditransitive sentences in BP**

According to what was argued in the previous section for BP, all prepositions analyzed in this paper are transitive (to use **Svenonius2004** and **Cuervo2010** terms), in the sense that they can select their complement, and also project Spec and complement positions in the argument structure.

Following **HaleKeyser2002**, **Svenonius2004** establishes prepositions are relational elements, a relation which can be captured through Figure and Ground associations (cf. Talmy, 1978). In simple terms, the Figure is the moving or conceptually movable object and the Ground the reference. For instance, in the sentence 'John threw the keys on the table' *the keys* is the Figure, *the table* the Ground and the element responsible to relate them is the preposition *on*. Therefore, the Ground is the complement of the preposition. Hence, the interpretation of the Ground depends on the preposition, whereas the interpretation of the Figure does not. Thus, transitive prepositions determine selection restrictions to its complement – the Ground – but not to the Figure.

Once prepositions can project Spec and complement positions, they can be introduced in the argument structure by a *p*P projection. **Wood2012** draws a parallel between the *p*P domain and the *v*P domain, insofar as the prepositional structure involves a 'light preposition' *p* and a P as categories *v* and V in the verbal domain.

(14)

[VoiceP *Agent* [Voice' [ Voice [vP [v [*Theme*]]]]]]
[pP *Figure* [p' [p [PP [P [*Ground*]]]]]]

Therefore, following the concepts of Figure and Ground, in ditransitive constructions the DO would be the Figure introduced in Spec*p*P. The complement of the *p* head is a Ground argument (the IO) accompanied by a transitive preposition introduced by a PP head (cf. 15). As mentioned before, the transitive preposition is placed under PP because it establishes a relation with the Ground not the Figure, since it applies selection restrictions to the IO, not the DO. For instance, with verbs of transfer and movement, the preposition *para* can only select complements that have *goal* or *beneficiary* theta-roles.

(15)

The transitive preposition as relational element can be responsible for holding a thematic relation between the DO and the IO. As such, this crucially confirms

**Cuervo2010**'s (**Cuervo2010**) proposal according to which ditransitive verbs do not require two separate arguments, but select a *relation* between DO and the IO. For **Cuervo2010**, this relation can be introduced in the argument structure by an applicative head, a small clause or a prepositional phrase.

As argued before, BP does not have applicative heads in its argument structure, as it cannot express morphologically dative case anymore, as EP does. Additionally, I am assuming IOs in the relevant structures are introduced by transitive prepositions. Consequently, the oblique complement is introduced via a *p*P in the argument structure. Therefore, the EP applicative construction (**??**) was reanalyzed in BP as (**??**).

**3.1. The i* - single argument introducer proposal**

In this section, I adopt **WoodMarantz2017**'s proposal of a single argument to account for the representation of ditransitive structures with transfer, movement and creation verbs in BP. Importantly, this proposal allows us to explain the two different semantic readings conveyed by the preposition *para* in sentences with creation verbs, as we will see in section 3.2. However, to understand the characteristics of this single argument introducer, I will first analyze ditransitive sentences with transfer and movement verbs which have just been discussed in the previous section.

**WoodMarantz2017** propose the main heads which add participants to the event (*Voice, low applicative, little p, prepositions (P), high applicative*) can be reduced to one i* single argument introducer. In these terms, three of the basic heads are defined in (**??**), depending on the syntactic contexts they occur:

(16)

a. Little p (figures): Bare *i** that merges with a PP.
b. Voice (agents): Bare *i** that merges with a vP.
c. Low appl (possessors): Bare i* that merges with a DP.
(**WoodMarantz2017**:258)

The introducer i* is a categorically unspecified head that does not start the derivation with a categorical feature, its categorial feature is valued by the categorial feature of the first constituent it merges with as result of a combination of an unvalued category (CAT) which may or may not trigger Merge with a constituent of category D, such as: {[CAT: __]. [S: D]}. The underscore indicates an unvalued CAT feature and i* would be the notation for this feature bundle. The selectional features are annotated in brackets, $P_{[S:\ D],}$ for instance, is a head of category P that selects (S) for a constituent of category D (**WoodMarantz2017**:257).

Hence, the main purpose of i* is to close off the extended projection of the first constituent with which it merges (cf. 17).

For instance, when PP merges with i*, its categorical feature of i* is valued as p, and the semantic interpretation of the preposition depends on the root. The preposition *in* is different from *on*, because the root √IN has the semantics of *container* while √ON of *surface*. Hence, the authors' proposal for a sentence as '*the car on the road*' is as follows:

(17)

(Wood & Marantz, 2017: 259)

The difference between this analysis and the one represented in (**??**) is the way the preposition is treated in relation to the argument it introduces. In the previous account, the preposition was only related to the Ground, not the Figure (cf.15). Under this new view, the preposition is a root that merges with i* to establish different semantic conditions for its complement, so under this view it is possible to represent the different semantics prepositions may convey. The lower i*, when merged with √ON, for example, assigns the DP *the road* the $\theta$-role associated with it, so that the DP is interpreted as a *surface*. Finally, in (**??**), the highest i* is merged with the pP and then with the DP, assigning to it the idea of Figure, associated to the element in SpecpP.

In BP, in the structures of verbs of transfer and movement, the default semantics of the prepositions *a* and *para* is of Goal/Recipient[9]. I assume the representation of these constructions can also be realized via i*. Hence, the derivation of sentence (**??**), represented in (**??**), is the following: the categorial preposition *para* merges with i* and then adjoins to the DP *o João* projecting a PP. Assuming that the DO-theme *uma carta* is analogous to the DP-Figure *the road* presented in (**??**) merged in Specp*P, p introduces a DO in its specifier. Additionally PP is capable of denoting a transfer of possession between DO and IO - *o João*. Next, if the denotes an event which implies an agent, v introduces such a DP – *Maria.* Hence, v*P consists of an i* attached to vP and then p is attached to i* merged with pP, forming p*P.

(18)

In the next section, we will see that the representation with i* is capable of

[9] *Para* can also be Beneficiary whereas *a* cannot, for more details cf. **Calindro2015**.

maintaining the two beneficiary interpretations that can be instantiated by *para* with creation verbs in BP.

**3.2. An analysis for ditransitive sentences with creation verbs**

In an attempt to propose a representation that can account for creation verbs as well as movement and transfer verbs, Marantz (2009, 2013) proposes that the DOs of creation verbs can be interpreted as eventualities, as they represent the object resulting from an action. In sentence (**??**), the author suggests the cake is an event itself, as it was once a group of ingredients and then becomes a final product after the action of someone making it.

The IO can be interpreted as benefitting from this change of state event that the DO has gone through (**Marantz2013**). Hence, in (**??**), there is a possession relation between the DO – *John* – and the IO – *a cake*, as there would be between the DO and the IO in a DOC in English or in the sentence represented in (**??**) from BP. Besides, the DO is also the beneficiary of *Mary's baking*:

(19)

Therefore, sentence (**??**) in BP can project a similar structure to (**??**), given in (**??**). Because, following Marantz's view, creation verbs can also be interpreted as dynamic events are. Hence, creation verbs can be represented in the same way movement and transfer verbs are (cf. 20):

(20)

This representation, however, does not account for the two semantic readings conveyed to the DP *o João*: *beneficiary of the theme* – 'dinner', which would be the low applicative reading; or *beneficiary of the event* of *Maria* having prepared dinner, which would be the high applicative.

**WoodMarantz2017** distinguish *little p, Voice,* and *low applicatives* from *PP* and *high applicatives* because the latter convey semantics of their own, independently from the element they attach to. Therefore, *PP* and *high applicatives* are i* heads with which lexical roots are merged. Hence, the high applicatives function as a root-adjoined i*, since the $\theta$-role it assigns to the DP in its specifier is not implied by the vP semantics. Therefore, the $\theta$-roles related to the high applicative are the same introduced by prepositions - Beneficiary and Locative.

This is particularly interesting for creation verbs whose IOs have semantics of *beneficiary*. In essence, a high applicative projection is like a vP because it also closes off the projection of the root, and not of the applicative head it creates.

In addition, all elements that can select a vP can also select a high applicative. Therefore, when the IO is the Beneficiary of the event its semantics is of a high applicative.

As argued previously, BP does not have applicatives, so the IOs are introduced through a prepositional phrase. Since i* is able to adjoin to a p, also following the idea that creation verbs are dynamic events as well, as discussed before. Additionally, it must be established that, according to Acedo-**Matéllan2010**, prepositions function as any other lexical categories that have a neutral root and a category that determines the functional head. Hence, prepositions can be prepositional roots with categorial features that will adjoin to an i* and generate a pP (cf. 21).

In (**??**), the categorial preposition *para* merges with i* and then adjoins to the DP *João* projecting a pP. Next, i* merges with vP, valuing its categorial feature as v, projecting v* $_{[S, D]}$. Finally, the DP *Maria* is merged, closing off the v*P. Consequently, the interpretation of *João* as the Beneficiary of the theme is conveyed, i.e., he is the one who dinner was prepared for.

(21)

In the second interpretation (cf. 22) – dinner may be appreciated by people other than *João*, which is why *João* is the *beneficiary of the event*, i.e., *João* is the beneficiary of the event of *Maria* preparing dinner, and will not necessarily eat it. For example, *João* should prepare dinner, but he is sick, so *Maria* will do it for him[10].

**(22)**

**The prepositional root in (??) is a neutral category. Thus, if i* merges the prepositional root with a neutral feature, it generates v*, not p*, which, when merged with vP, values the categorical feature of v by projecting vP$_{[S: D]}$. Subsequently, the categorial feature of D is checked by merging vP $_{[S: D]}$ with the DP *João*. Similarly, the external argument *Maria* is added to the structure. Therefore, this representation captures the interpretation of a *high applicative*, since the argument *o João* is related to the event, which is the second possible interpretation for sentence (??).**

**4. Final Remarks**

[10] I would like to thank an anonymous reviewer who suggested these semantic readings should be made clearer for those not familiar with BP.

**In this paper, I analyzed a change in progress in the introduction of IOs in ditransitive sentences in BP. With dynamic verbs of transfer and movement, the preposition *a* is substituted by transitive preposition *para* in spoken varieties of BP, however in written register they co-occur in modern BP. Hence the preposition *a* and *para* have the same status of a transitive prepositions, which are relational elements. This change coupled with the loss of the 3rd person dative clitics *lhe(s)* accounts for a change in the representation of ditransitive sentences, when BP is compared to other Romance languages and, in particular, to EP.**

**On this basis, I proposed that the argument structure of ditransitive sentences in BP does not entail applicative heads, as other Romance languages do. Hence, in this language, the relation between the DO and the IO selected by the verbal root is introduced in the argument structure by a pP.**

**This representation, however, does not capture the two semantic readings that the IO introduced by *para* with creation verbs can have. As such, the representation of creation verbs should necessarily involve the single argument introducer i*, with which it is possible to provide a more accurate account for both interpretations conveyed by the preposition *para* in these contexts.**[11]

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# Chapter 4

# Putting objects in order: Asymmetrical relations in Spanish and Portuguese ditransitives

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Spanish, European Portuguese, and Brazilian Portuguese allow two possible linear orders for the direct (DO) and indirect object (IO) in ditransitives: DO>IO and IO>DO. The goal of this paper is twofold. First, we show that the arguments supporting a Double Object Construction (DOC) in these languages are inconclusive on both semantic and structural grounds. Accordingly, we claim that there is no DOC in these three languages. Second, we provide evidence that DO>IO and IO>DO are derivationally related. We show that DO>IO is the base order and that IO>DO is the result of an information structure operation, the latter order being possible only when IO conveys given information in the discourse and occupies the specifier of a low-periphery TopP. We offer a unified analysis that contributes to a comparative understanding of ditransitives in Romance.

## 1 Introduction

Spanish, European Portuguese (EP), and Brazilian Portuguese (BP) allow two possible linear orders for the direct (DO) and indirect object (IO) in ditransitive constructions: DO may precede or follow IO; that is, both DO>IO and IO>DO are possible. Examples are offered in (**??**) for Spanish and (**??**) for EP and BP (with the preposition *a* and *para*, respectively):

(1) a. Spanish DO>IO
Olga (le) dio [$_{DO}$ una manzana] [$_{IO}$ a Mario].
Olga CL gave an apple to Mario
'Olga gave an apple to Mario.'

b. Spanish IO>DO
Olga (le) dio [$_{IO}$ a Mario] [$_{DO}$ una manzana].
Olga CL gave to Mario an apple
'Olga gave an apple to Mario.'

(2) a. EP/BP DO>IO[1]
A Olga deu [$_{DO}$ uma maçã] [$_{IO}$ a/para o Mario].
the Olga gave an apple to the Mario
'Olga gave an apple to Mario.'

b. EP/BP IO>DO
A Olga deu [$_{IO}$ a/para o Mario] [$_{DO}$ uma maçã].
the Olga gave to the Mario an apple
'Olga gave an apple to Mario.'

For these three languages, there is a debate in the literature on the availability of a Double Object Construction (DOC), similar to the configuration found in English. Larson (1988, 2014) argues that English ditransitive verbs such as *give* allow both a Prepositional Phrase dative configuration (PP-dative), as in (??), and a DOC configuration, as in (??), and that these two configurations are derivationally related.[2]

(3) a. English PP-dative
Olga gave [$_{DP}$ an apple] [$_{PP}$ to Mario].

b. English DOC
Olga gave [$_{DP}$ Mario] [$_{DP}$ an apple].

Demonte (1995), Bleam (2003), Cuervo (2003, 2010), a.o., have claimed that, when the IO-doubling clitic appears in Spanish sentences such as those in (??),

[1] BP, unlike EP and Spanish, does not use the preposition *a* in dative constructions. On the loss of the preposition *a* and the syntax of *para* in BP, see Calindro (this volume).

[2] Other derivational accounts for the relationship between (??) and (??) in English have been presented in the literature. For an interesting review of arguments, see Rappaport-Levin & Hovav (2008) and Hallman (2015). It is worth noting that the generalizations we arrive at in this paper hold independently of these theoretical positions, since we argue that there is no construction such as (??) in Spanish or Portuguese.

the sentences resemble the English DOC. In contrast, the clitic-less ditransitive corresponds, in their view, to a PP-dative. It has also been claimed that the basic order in this kind of constructions is IO>DO. For Portuguese sentences such as those in (**??**), Torres Morais & Salles (2010) have claimed that the order IO>DO is equivalent to the English DOC.

In this paper, we investigate whether *give*-type verbs in Spanish and Portuguese exhibit the kind of derivational relation they show in English. After analyzing the arguments that have been used to support the existence of DOC in these languages, we claim that there is no DOC in either Spanish, EP, or BP, and that the different linear orders for DO and IO are derivationally related. Our unified analysis aims to contribute to a better understanding of ditransitives in Romance, a topic that has been scarcely analyzed comparatively (except for Pineda 2016).

The paper is structured as follows. In section **??**, we analyze the arguments used to support a DOC approach for Spanish, EP, and BP, and propose that there is no conclusive evidence in favor of a DOC in these languages. In section **??**, we argue that the IO>DO order is strictly related to information structure. We offer our conclusions in the last section.

## 2 The asymmetry of DO and IO in Spanish and Portuguese

In this section, we examine the syntactic and semantic arguments supporting a DOC approach for Spanish, BP and EP (as defended by Demonte 1995, Cuervo 2003, Torres Morais & Salles 2010, a.o.). We claim that these arguments are not conclusive, as DO and IO have asymmetrical properties regardless of their linear order.

### 2.1 DO>IO and IO>DO are derivationally related.

For English, Harley (1995) proposed decomposing verbal units into a CAUSE and another abstract element, either LOC(ATION) or HAVE. The order DO>IO corresponds to CAUSE + LOC, whereas IO>DO corresponds to CAUSE + HAVE. Therefore, these two orders correlate with two independent structures. Examples in (**??**) and (**??**) are adapted from Harley (1995).

(4) a. DO>IO (= CAUSE + LOC)
Olga gave an apple to Mario.

b.
,,

(5) a. IO>DO (= CAUSE + HAVE)
Olga gave Mario an apple.

b. ,,

Harley's independent structures have been applied to the analysis of Romance ditransitives (Bleam 2003, Costa 2009, Brito 2014, 2015). The central argument used has been based on the non-compositionality of idiomatic expressions. Let us consider Brito's (2014, 2015) analysis as an example of this approach.

When discussing EP ditransitives, Brito (2014, 2015) concludes that there is no English-like DOC in EP and the DO>IO and IO>DO orders correspond to the different underlying structures in (??).

(6) a. DO>IO
,,

b. IO>DO
,,

Using idiomatic expressions to support her claim, Brito (2014) argues that certain idioms have a necessarily strict order since the idiomatic meaning is lost when the order is reversed. Thus, the idiomatic reading in (??), *dar pérolas aos porcos* 'give something valuable to someone who does not appreciate it' usually appears as DO>IO (??), while the idiomatic reading in (??), *dar a Deus o que o diabo não quis* 'pass as a good person after a sinful life' is related to IO>DO (??).

(7) a. EP idiomatic DO>IO
A Olga deu [$_{DO}$ pérolas] [$_{IO}$ aos porcos].
the Olga gave pearls to.the pigs
'Olga cast pearls before swine.'

b. EP non-idiomatic IO>DO
A Olga deu [$_{IO}$ aos porcos] [$_{DO}$ pérolas].
the Olga gave to.the pigs pearls
'Olga gave pearls to the pigs.'

(8) a. EP idiomatic IO>DO
Dar [$_{IO}$ a Deus] [$_{DO}$ o que o diabo não quis].
give to God the what the devil not wanted
'to pass as virtuous despite an immoral past.'

b. EP non-idiomatic DO>IO
Dar [$_{DO}$ o que o diabo não quis] [$_{IO}$ a Deus].
give the what the devil not wanted to God
'to give God what the Devil did not want.'

In the three languages, some idioms seem to have the form V+DO, with IO in sentence-final position (as in (7a) for EP) and many times as an empty slot to be filled. For example, Spanish *dar lata a alguien* 'give someone a hard time' and BP *dar canja a alguém* 'make things easy for someone' have IO slots filled by *a/para Olga*, respectively, in (9).

(9) a. Spanish
Mario (le) está dando lata a Olga.
Mario CL is giving tin.can to Olga
'Mario is giving Olga a hard time.'

b. BP
O Mario está dando canja para a Olga.
the Mario is giving chicken.broth to the Olga
'Mario is making things easy for Olga.'

Sentences like (**??**) have been used as an argument to claim that V+DO must form a constituent and, therefore, IO must be generated higher than DO (Bleam 2003). However, Larson (2014, 2017) argues convincingly that idiomatic expressions are not a conclusive argument for the existence of two independent structures, let alone for DOC.

First, the so-called *idiomatic reading* is in fact compositional: the objects always receive specific meanings. Larson (2017) shows that speakers can interpret the alleged idiomatic reading in a phrase even in isolation. He finds support for this in the dictionary entries. For instance, the English sentence *Olga gave Mario a kick* can be interpreted as 'Olga gave Mario some feeling of excitement'. But this meaning is exactly what Larson finds in the dictionary entry for *kick*:

(10) **kick** n… **5** *Slang* a feeling of pleasurable stimulation. (*AHDEL*)
(Larson 2017:406)

The same analysis can be applied to Spanish and Portuguese. The examples in (??) suggest that the Spanish and Portuguese sentences in (??) are really non-idiomatic since *lata* and *canja* can be interpreted as 'bothersome situation' (??) and 'easy situation' (??), respectively, even without the presence of the verb.

(11) a. Spanish
¡Esto es una lata!
this is an annoyance
'This is annoying!'

b. BP
Isto é uma canja!
this is an ease
'This is easy!'

This shows that the so-called idiomatic expressions appear to be fully compositional. Therefore, in ditransitive structures, DO and the verb do not necessarily form a constituent that excludes IO. Even if we are persuaded that DO>IO and IO>DO are not derivationally related, idiomatic expressions cannot be used as a core argument for that claim. But are DO>IO and IO>DO really not related? In what follows, we argue that they are.

May (1977) shows that quantifier scope ambiguities offer relevant information about sentence structure. For instance, the sentences in (??) and (??) both contain two quantifiers: the universal *every* (represented as ∀) and the existential *a* (represented as ∃). For each sentence, we show the surface scope (the reading in which the scope of the quantifiers follows the superficial order of the constituents) and the inverse scope (the reading that results from inverting the linear order of the quantifiers):

(12) Every ambassador visited a country.

a. Surface scope: ∀ > ∃
For every ambassador, there is a (potentially different) country that she/he visited.

b. Inverse scope: ∃ > ∀
There is one country that every ambassador visited.

(13) An ambassador visited every country.

a. Surface scope: ∃ > ∀
There is one ambassador that visited every country.

b. Inverse scope: ∀ > ∃
For every country, there is a (potentially different) ambassador that visited it.

We focus on linear ∃ > ∀ sentences like (??) to test inverse scope (see Larson 2014). English is a fluid scope language since it typically allows quantified arguments in simple sentences to be read with varying scopes. However, in some constructions, scope seems *frozen* in its surface order (i.e., the inverse scope is not possible). For instance, whereas (??) is scopally ambiguous, (??) is not because the scope has frozen.

(14) a. English ∃ > ∀, ∀ > ∃
The President assigned [a country] [to every ambassador].
b. English ∃ > ∀, *∀ > ∃
The President assigned [an ambassador] [every country].

We find the same asymmetries in Spanish and Portuguese ditransitives with *give*-type verbs. When DO contains an existential quantifier ($DO_{\exists}$), IO contains a universal quantifier ($IO_{\forall}$), and the order is $DO_{\exists}$>$IO_{\forall}$, the sentence is scopally ambiguous: it has both a surface and an inverse scope reading. In contrast, when DO contains a universal quantifier ($DO_{\forall}$), IO contains an existential quantifier ($IO_{\exists}$), and the order is $IO_{\exists}$>$DO_{\forall}$, the scope in the sentence is frozen: no inverse scope reading is allowed. BP examples are provided in (??).

(15) a. BP $DO_{\exists}$ $IO_{\forall}$: ∃ > ∀, ∀ > ∃
A Olga deu [$_{DO}$ um presente] [$_{IO}$ para todos os alunos]
the Olga gave a gift to every the students
'Olga gave a gift to every student.'
b. BP $IO_{\exists}$ $DO_{\forall}$: ∃ > ∀, *∀ > ∃
A Olga deu [$_{IO}$ para um aluno] [$_{DO}$ todos os presentes]
the Olga gave to a student every the gifts
'Olga gave a student every gift.'

Sentence (??), $DO_{\exists}$ $IO_{\forall}$, has two possible readings. Its surface scope reading is that there is one gift that Olga gave to every student. Its inverse scope reading is that, for every student, there is a (potentially different) gift that Olga gave to them. In contrast, sentence (??), $IO_{\exists}$ $DO_{\forall}$, can only be interpreted with a surface scope reading: there is one student to whom Olga gave every present. The inverse scope is not possible, which means that it has frozen.

Antonyuk (2015, this volume) proposes a theory of scope freezing based on overt movement. Scope freezing occurs when a quantifier raises over another to a c-commanding position as a result of a single instance of movement. We use scope freezing as a diagnostic tool for observing the argument structure of ditransitives. Whereas sentences with no instances of object movement must be scopally ambiguous, sentences in which one object has moved over the other must be interpreted in scope freezing terms.

The interpretation of the sentences in (??) suggests that they have different structures. Based on the possible scope ambiguity for DO>IO, we claim that there has been no object movement in (??). Conversely, in (??), based on the frozen scope of IO>DO, IO must have moved from a lower position to a higher one crossing over DO. The same scope asymmetry is also found in EP and Spanish. In the latter, the presence/absence of a dative clitic does not play any role in altering the scope relations between two co-occurring quantifiers. We return to the dative clitic's role in section ??.

This scope asymmetry strongly indicates that DO>IO and IO>DO must be related and that the base order is DO>IO, as proposed by Larson (1988, 2014). IO>DO must be derived by movement.[3]

## 2.2 There is no DOC in Spanish or Portuguese.

As already mentioned, scholars such as Demonte (1995), Bleam (2003), Cuervo (2003, 2010), a.o., claim that the presence of the dative clitic in Spanish indicates a DOC. In this section, we show that the presence of the clitic does not support a DOC analysis for Spanish, EP, and BP. Although we refer to examples by Demonte (1995), our discussion also applies to other scholars' work, as they use Demonte (1995) as the base of their proposals. In addition, we show that the impossibility of passivization suggests against a DOC analysis for these three languages.

Demonte (1995) argues that only with the presence of the clitic can an anaphoric or possessive DO appear higher than an IO. To support her claim, she finds a contrast between (??)/(??), without a clitic, and (??)/(??), with a clitic, respectively (examples based on Demonte):

[3] Comparable freezing facts and sensitivity to the different orders of DO and IO have been used to argue for an IO>DO base order in Germanic languages, DO>IO being the result of scrambling (see Abraham 1986, Choi 1996, Bacovcin 2017, a.o.). For reasons of space, we leave a discussion of this proposal for future work.

(16) Spanish

a. * El tratamiento devolvió [$_{DO}$ a sí misma] [$_{IO}$ a Olga].
the therapy gave-back to her self to Olga
Intended: 'The therapy helped Olga to be herself again.'

b. El tratamiento **le** devolvió [$_{DO}$ la estima de sí misma] [$_{IO}$ a Olga].
the therapy CL gave-back the esteem of her self to Olga
'The therapy gave Olga her self-esteem.'

(17) Spanish

a. La profesora entregó [$_{DO}$ su$_i$ dibujo] [$_{IO}$ a cada niño$_i$].
the teacher gave-back his/her drawing to each child
'The teacher gave each child their drawing.'
(* for Demonte)

b. La profesora **le** entregó [$_{DO}$ su$_i$ dibujo] [$_{IO}$ a cada niño$_i$].
the teacher CL gave-back his/her drawing to each child
'The teacher gave each child their drawing.'

However, the grammaticality differences offered by Demonte are not informative of the underlying structure of ditransitive constructions. First, the grammaticality difference of the sentences in (**??**) is not an effect of the presence of the dative clitic, as the same difference arises when adding the clitic to (**??**) or removing it from (**??**) (also noted by Pineda 2013). Rather, the contrast arises from the different internal structure of the DO DPs: [$_{DO}$ *a sí misma*] 'herself' in (**??**), and [$_{DO}$ *la estima de sí misma*] 'her self-esteem' in (**??**). The grammaticality of (**??**) is due to the deeper structural position of the anaphor.

Second, against Demonte's (1995) judgment, we consider (**??**) unquestionably grammatical (so does Pineda 2013). Thus, there is no real grammaticality differences between (**??**) and (**??**). The grammaticality effects remain the same regardless of the presence or absence of the dative clitic for both sentences. We conclude that the dative clitic in Spanish does not play any role in determining the structural position of DO or IO.

But does the presence of a clitic inform about a DOC? When analyzing English ditransitives, Oehrle (1976) claimed that DO>IO sentences such as (**??**) and IO>DO sentences such as (**??**) have a different interpretation in terms of *posses-*

*sion entailment*. Oehrle says that the English DOC entails that there is a successful transfer or change of possession, either literally or symbolically. Therefore, by uttering (**??**), the speaker does not have any commitment to whether Mario actually learned Quechua. In contrast, only in (**??**) is there a possession entailment: Mario was transferred knowledge and, therefore, he did in fact learn Quechua.

(18) English
   a. Olga taught Quechua to Mario.
   b. Olga taught Mario Quechua.

Demonte (1995) assumes Oehrle's analysis for English to be directly applicable for Spanish sentences depending on the absence or presence of a clitic. She differentiates between sentences with and without a clitic and argues that the presence of the clitic assures a possession entailment. To test this claim, we analyze the sentences in (**??**) and (**??**) (adapted from Demonte). We think that these sentences are ideal to test whether the presence of the clitic plays a role in conveying a transfer of possession, because they do not contain a *give*-type verb in the main clause. If the transfer of possession is a property of the clitic, then the sentence containing a clitic must entail a transfer of possession. However, as we show, the presence of the clitic does not generate a possession entailment.

Sentence (**??**) contains no clitic in the main clause and includes a *para*-phrase ('for'). The fact that the main clause can be continued by *que luego le dio a Mario* 'which she later gave to Mario' is interpreted by Demonte as a suggestion that there is no transfer of possession because there is no clitic supporting that interpretation. Sentence (**??**) contains the clitic *le* in the main clause and an *a*-phrase ('to'). Demonte adds a double question mark to the continuation *que luego le dio a Mario* under the assumption that the presence of the clitic conveys a clear transfer of possession. In other words, she assumes that in (**??**) the cake is now in the possession of Olga, so it cannot be further transferred to Mario.

(19) Spanish
   a. Hizo [una torta] [**para** Olga] (que luego le dio a Mario).
      made a cake for Olga that later CL gave to Mario
      'She made a cake for Olga (which she later gave to Mario).'
   b. **Le** hizo [una torta] [**a** Olga] (que luego le dio a Mario).
      CL made a cake to Olga that later CL gave to Mario
      'She made a cake for Olga (which she later gave to Mario).'
      (?? for Demonte)

However, the semantics proposed by Demonte for these sentences is not accurate. In both (??) and (??), the transfer of possession is not an *entailment*, but an *implicature*. An implicature is an inference that may not hold in the context of other information and, thus, can be canceled. Entailments cannot be canceled. *Hacerle una torta a Olga* 'making a cake for Olga' does not entail that Olga is in the possession of the cake, which suggests that the clitic is not playing any role in conveying transfer of possession. Rather, the continuation *que luego le dio a Mario* in both (??) and (??) cancels the inference that Olga is in the possession of the cake, which makes this inference an implicature. Note that (??) is not judged ungrammatical by Demonte. Since the presence of the clitic does not generate a possession entailment, its presence or absence does not change the meaning of the sentence. The presence of the clitic does not support a DOC analysis.

A further argument against a DOC analysis is passivization. English DOCs are able to passivize the argument generated in the IO position. Larson (1988) explains that passivization and the PP-dative/DOC alternation are related processes, since passives advance an object to a subject position, while DOCs advance an indirect object to a direct object position. IO passivization is shown in (??), where *Mario* was generated as an IO, even though it appears occupying the subject position after spell-out.

(20) English
Mario was given an apple.

However, IO passivization is simply not allowed in Spanish, EP, or BP. The examples in (??) show the impossibility of the counterparts of (??) in these three languages. Note that the presence of the dative clitic in Spanish does not improve the grammaticality of the sentence (??).

(21) a. EP/BP
*O Mario foi dado uma maçã.
the Mario was given an apple
Intended: 'Mario was given an apple.'

b. Spanish
*Mario (le) fue dado una manzana.
Mario CL was given an apple
Intended: 'Mario was given an apple.'

The absence of IO passivization in Spanish, EP, and BP has been largely overlooked as if it did not offer any insights for these languages. But, if IO passivization is not possible, then we need to assume that IO in IO>DO is not occupying

any object position (Larson 2014), even though its linear order may suggest differently. We return to this issue in section **??**. For now, it is safe to say that, if IO is not occupying an object position when it precedes DO, then it is not accurate to claim that IO>DO is a DOC.

We conclude that the claim that there is DOC in Spanish, EP, and BP does not have support in the data, and there is no solid semantic or structural evidence for a DOC in these three languages.

## 3 The order of objects and information structure

We have claimed that there is no DOC in Spanish, EP, or BP and that the base structure is DO>IO in these three languages. In this section, we propose that information structure shapes the IO>DO configuration in these languages.

### 3.1 The distribution of DO>IO and IO>DO

In Romance languages, given information (i.e., information assumed or already supplied in the context) appears early in the sentence and does not carry sentential stress, whereas new information (i.e., information introduced for the first time in an interchange) typically occurs sentence-finally and receives a special intonation (Zubizarreta 1988). When the whole sentence conveys new information, its linear order follows the default, unmarked structure.

The informationally unmarked order for ditransitives is DO>IO. This is the default order for answering a general question with no topic-comment structure, such as 'what happened?'. Observe the BP example in (**??**), which is an answer to the question *O que aconteceu?* 'What happened?'

(22) A Olga deu [$_{DO}$ uma maçã] [$_{IO}$ para o Mario].
the Olga gave an apple to the Mario
'Olga gave an apple to Mario.'

In (**??**), the whole sentence conveys new information in the discourse. DO>IO is the only appropriate order to answer the question, which offers support to the claim that this is the base structure for ditransitives. The same generalization applies to both EP and Spanish.

Besides, following the general pattern for Romance, DO>IO is also the unique answer to the question 'to whom?', which asks for IO. Since IO encodes new information in the answer to such a question, it appears in final position. These effects are found in Spanish, EP, and BP. Therefore, the sentence in (**??**) can also

be the answer to the question *A quem deu a Olga uma maçã?* 'Who did Olga give an apple to?'. As we discuss in the next subsection, although the answers to 'what happened?' and 'to whom'? are linearly identical, they certainly differ structurally.

So DO>IO is the default order when the whole sentence is the new information and when IO conveys new information. In contrast, the IO>DO order is more constrained. First, IO>DO appears when DO encodes new information, as the answer to the question 'what?' and, as is regular in Romance, occurs in final position. An example appears in (**??**) in BP, which is the answer to the question *O que a Olga deu para o Mario?* 'What did Olga give to Mario?'

(23) A Olga deu [$_{IO}$ para o Mario] [$_{DO}$ uma maçã].
the Olga gave to the Mario an apple
'Olga gave an apple to Mario.'

Second, IO>DO also appears when DO is heavy, that is, when it is either a long or complex constituent. Previous corpus and theoretical studies in Romance (Beavers & Nishida 2010 for Spanish, Brito 2014 for EP, Mioto 2003 for BP) show that it is expected to find a heavy DO in final position.[4] Examples in (24) show a contrast for EP.

(24) a. ?/# A Olga deu [$_{DO}$ três razões para não aceitar o trabalho]
the Olga gave three reasons to not accept the job
[$_{IO}$ ao Mario]
to.the Mario
Intended: 'Olga gave Mario three reasons not to accept the job.'

b. A Olga deu [$_{IO}$ ao Mario] [$_{DO}$ três razões para não aceitar
the Olga gave to.the Mario three reasons to not accept
o trabalho]
the job
'Olga gave Mario three reasons not to accept the job.'

[4] IO>DO is also found in non-Romance languages with a heavy DO. In the following English examples (adapted from Larson 2014), (**??**) is not a DOC as IO contains the preposition 'to':

(i) English IO>DO
a. ?/# Olga gave [$_{DO}$ a reason not to accept the job] [$_{IO}$ to Mario].
b. Olga gave [$_{IO}$ to Mario] [$_{DO}$ a reason not to accept the job].

For cases like (??) and (??), IO>DO is the most natural order. IO>DO is, therefore, the result of a discourse related configuration that affects the basic order of the arguments of ditransitives. From these facts, we conclude that the IO>DO order should be explained in terms of information structure.

### 3.2 A low left periphery

Belletti (2004) argues that the verb phrase is endowed with a fully-fledged periphery of discourse related structural positions, in parallel with the high left periphery. Her seminal work has been successfully developed in the recent literature (Mioto 2003, Quarezemin 2005, Jiménez-Fernández 2009, a.o.) and is relevant for us to explain the IO>DO order in Spanish, EP, and BP. We propose a low left periphery that minimally contains a Topic Phrase (TopP), a Focus Phrase (FocP), and the verbal domain (*v*P), as shown in (??). TopP and FocP are motivated by the discursive processes that change the order of sentence constituents.

(25) [TopP [FocP [*v*P ]]]

We propose that IO>DO is possible when IO occupies TopP and DO occupies FocP. Consider again the BP IO>DO answer in (??), repeated below as (??).

(26) A Olga deu [$_{IO}$ para o Mario] [$_{DO}$ uma maçã].
the Olga gave to the Mario an apple
'Olga gave an apple to Mario.'

As argued in section ??, the DO *uma maçã* 'an apple' in (??) is generated higher than the IO *para o Mario* 'to Mario'. This base order is altered by two movement operations, which are motivated by information structure properties in the low left periphery. First, since DO encodes new information by offering the exact answer to the question 'what?', it moves from its verb-internal position to the low FocP. This movement is not surprising as answers to questions are associated with focus (Rooth 1992). Second, since IO offers given information, it moves from its initial position to the low TopP, crossing over both DO's base position and its landing site. Additionally, the complex V+*v* has moved to Tense, as is the general case in Romance. A structure for (??) is shown in (??). The arrows mark the movements towards the low left periphery.

(27) 

As for the DO>IO order in sentences such as (22), repeated below as (??), the syntactic structure depends on the kind of discourse-related information it conveys. When the whole sentence is the new information, the low left periphery does not host any constituent and we could safely say that both DO and IO remain in situ, as in (??). In contrast, when only IO conveys the new information, both DO and IO move to the specifier of TopP and FocP in the low left periphery, respectively, as shown in (??).

(28) A Olga deu [$_{DO}$ uma maçã] [$_{IO}$ para o Mario].
the Olga gave an apple to the Mario
'Olga gave an apple to Mario.'

a. [$_{TP}$ A Olga T+$v$+deu [$_{vP}$ <A Olga> <$v$+deu> [$_{VP}$ [uma maçã] <deu> [para o Mario] ] ] ]

b. [$_{TP}$ A Olga T+$v$+deu [$_{TopP}$ [uma maçã] Top [$_{FocP}$ [para o Mario] Foc [$_{vP}$ <A Olga> <$v$+deu> [$_{VP}$ <uma maçã> <deu> <para o Mario> ] ] ] ] ]

The analyses we have proposed for IO>DO and DO>IO apply equally to BP, EP, and Spanish. Our proposal can account for the fact that it is possible to find an IO>DO order in Spanish and Portuguese, which is derivationally related to the basic order DO>IO, without assuming a DOC construction for these languages.[5]

## 4 Conclusions

In this paper, we have dismissed the arguments supporting a DOC approach for Spanish and Portuguese while showing that there are no DOCs in these three languages. We have proposed that the internal argument structure of ditransitives is based on a DO>IO order. The IO>DO order is a derived configuration, which we have explained in terms of movement to a low left periphery with discourse-related positions available. Our comparative approach unifies the analysis of ditransitives in Spanish, EP and BP.

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[5]For a formal proposal on the role of information structure features, see Cépeda & Cyrino (2017).

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# Chapter 5

# Ditransitive constructions with DOM-ed direct objects in Romanian

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***Abstract***. *The paper discusses Romanian data that had gone unnoticed so far and investigates the differences of grammaticality triggered by DOM-ed DOs in ditransitive constructions, in binding configurations. Specifically, while a bare DO may bind a possessor contained in the IO, whether or not the IO is clitic doubled, a DOM-ed DO may bind into an undoubled IO, but cannot bind into an IO if the latter is clitic doubled. Grammaticality is restored if the DO is clitic doubled in its turn.*

*The focus of the paper is to offer a derivational account of ditransitive constructions, which accounts for these differences. The claim is that the grammaticality contrasts mentioned above result from the different feature structure of bare DOs compared with DOM-ed ones, as well as from the fact that DOM-ed DOs and IO have common features. DOM-ed DOs interfere with IOs since both are sensitive to the Animacy Hierarchy, and include a syntactic [Person] feature in their featural make-up. The derivational valuation of this feature by both objects may create locality problems.*

**Keywords**: *dative, DOM, ditransitive construction, functional prepositions, binding*

## 1 Problem and aim

In this paper, I turn to data not discussed for Romanian so far and consider the differences of grammaticality triggered by DOM-ed DOs in ditransitive constructions, in *binding* configurations.[1]

Specifically[2], bare DOs easily bind a possessor contained in a dative IO, whether the latter is CD-ed or not, as in (??) - (??). The picture changes when the DO is DOM-ed. It is still possible for a DOM-ed DO to bind into an undoubled IO (??), but if the IO *is doubled,* the sentence is *ungrammatical* (??). While co-occurrence of the DOM-ed DO with a dative clitic, results in ungrammaticality, if the DOM-ed DO is doubled, sentences are grammatical, again irrespective of the presence/absence of the dative clitic, as in examples (??) and (??).

(1)

Romanian (CDT 2017: 162)
$DP_{theme}$ > $DP_{goal}$
*Banca a retrocedat multe case$_i$ proprietarilor lor$_i$ de drept.*
bank.the has returned many houses owners.the.DAT their of right
'The bank returned the houses to their rightful owners.'

(2)

Romanian (CDT 2017a:162)
$DP_{theme}$ >**cl**-$DP_{goal}$
*Banca **le**$_j$=a retrocedat multe case$_i$*
bank.the they.DAT=has returned many houses
*proprietarilor$_j$ lor$_i$ de drept.*
owners.the.DAT their of right
'The bank returned many houses to their rightful owners.'

(3)

[1]I would like to express my gratitude for the wonderful help I got from the reviewers and the editors in finalizing the paper. Remaining errors are all mine.

[2]Judgments on possessor binding in Romanian ditransitive constructions and some of the examples come from an experiment described in detail in Cornilescu, Dinu & Tigău (CDT, 2017a). Unless otherwise specified, examples and acceptability judgments belong to the author.

Romanian
DOM-ed $DP_{theme}$ > $DP_{goal}$
*Comisia a repartizat pe mai mulți medici$_i$ rezidenți*
board.the has assigned DOM more many medical residents
*unor foști profesori de-ai lor$_i$.*
some.DAT former professors of theirs.
'The board assigned several medical residents to some former professors of theirs.'

(4)

Romanian
*DOM-ed $DP_{theme}$>**cl**- $DP_{goal}$
**Comisia **le**=a repartizat pe mai mulți medici$_i$ rezidenți*
board.the they.DAT=has assigned DOM more many medical residents
*unor foști profesori de-ai lor$_i$.*
some.DAT former professors of theirs
'The board assigned several medical residents to some former professors of theirs.'

(5)

Romanian
**cl**- DOM-ed $DP_{theme}$> $DP_{goal}$
*Comisia **i**=a repartizat pe mai mulți medici$_i$ rezidenți*
board.thethey.ACC=has assigned DOM more many medical residents
*unor foști profesori de-ai lor$_i$.*
some.DAT former professors of theirs.
'The board assigned several medical residents to some former professors of theirs.'

(6)

Romanian
**cl**- DOM-ed $DP_{theme}$>**cl**-$DP_{goal}$
*Comisia i=l=a=repartizat pe fiecare medic rezident*
board.the she.DAT=he.ACC=assigned DOM each medical resident

*unei foste profesoare a lui.*
some.DAT professor.F.DAT his
'The board assigned each resident doctor to a former professor of his.'

Critical is the difference between (**??**) and (**??**), and also between (**??**) and (**??**)-(6) where the DO is doubled.

***The aim*** of the chapter is to offer a derivational account of ditransitive constructions, which accommodates these differences. We claim that the grammaticality contrasts above result from the different feature structure of bare DOs compared with DOM-ed ones, and from the fact that DOM-ed DOs and IOs need to check the same [Person] feature against the same functional head.

## 2 On Romanian dative DPs

### 2.1 2.1. Inflectional datives and the animacy hierarchy

In Romanian nouns have *inflectional dative morphology* and, additionally, exhibit *prepositional marking*, employing the locative preposition *la* 'at'/'to'. An essential property of inflectional datives (=Inf-DAT) is that they are highly sensitive to the animacy hierarchy (=AH) and have a *higher cut-off point* than ***la***-datives, as seen in (**??**).

(7)

human > animate > inanimate

(8)

Romanian
a. *Am turnat vin la musafiri/ musafirilor*
have.I poured wine at guests/ guests.the.DAT
'I poured wine to the guests.'
b. *Am dat apa la cai/ ?cailor.*
have.I given water at horses/ horses.the.DAT
'I poured water to the horses.'
c. *Am turnat apă la flori/ *?florilor.*
have.I poured water at flowers flowers.the. DAT
'I poured water to the flowers.'

One theoretical difficulty that immediately arises is that of incorporating *scalar concepts* like the AH or the definiteness hierarchy (= DefH) into the discrete binary system of a minimalist grammar. **Richards2008** argues that the AH and the DefH are semantic and pragmatic in nature and should be viewed as *syntax-semantics interface phenomena*. Crucially, he proposes that nouns which are sensitive to these hierarchies should be lexically specified for a binary *grammatical* [Person] feature (Rodríguez-**Mondoñedo2007** for Spanish). It is this [Person] feature which triggers the interpretation of a given NP along the two hierarchies, checking its position on the two scales. Nouns which accept the Inf-DAT enter the derivation lexically marked as [+Person]. Since this is a syntactic feature, it must be checked during the derivation.

**2.2 On the internal structure of *la*-datives**

The preposition *la* 'at'/'to' is not only a *functional dative marker*, but it is also the core *lexical preposition* of the location and movement frames. The lexical preposition *la* assigns accusative case to its object, this accusative cannot be replaced by a dative, and, as correctly pointed out by both reviewers, accusative *la*-phrases do not co-occur with dative clitics. All movement and location verbs may combine with lexical accusative *la*-phrases, rejecting, however, dative *la*-phrases. An example is the verb *merge* 'go', which is compatible only with lexical *la*, but not with functional dative *la*. Substitution of the *la*-phrase with a dative DP is impossible (**??**), and a dative clitic is equally ungrammatical (**??**).

(9)

Romanian
a. *Ion a mers la Maria/ **Mariei.*
Ion has gone at Maria.ACC/ Maria.DAT
'Ion went to Maria.'
b. **Ion îi merge (Mariei).*
Ion she.DAT=goes Maria.DAT
'Ion is going to Mary.'

One specification is required at this point. Even for unaccusative verbs like *plăcea* 'like', which always select a dative Experiencer, either inflectional or prepositional, co-occurrence of a dative *la*-phrase with a clitic is possible only in the third person; in the first and in the second person, the clitic may co-occur only with an inflectional dative strong pronoun, never with a prepositional dative, as apparent in (**??**) below:

(10)

Romanian
a. *Cicolata le=place copiilor/ la copii.*
chocolate.the they.DAT=like.3SG children.the.DAT/ at children
'Children like chocolate.'
b. *Ciocolata îmi=place şi mie/ *şi la mine.*
chocolate.the I.DAT=like.3SG also I.DAT / also at me
'I also like chocolate.'

Verbs in the movement frame do not behave uniformly regarding the realization of their Goal argument. While some never select a dative (e.g. *merge* 'go'), others (e.g. *ajunge* 'arrive' or *veni* 'come') may select a dative on condition that the Goal DP is [+Person]; the dative Goal is realized as a clitic, doubled by a strong pronoun or by a dative *la*-phrase, provided that the clitic is third person, as already shown in (**??**). Thus, in (**??**) the *la*-phrase is lexical; in (**??**), the Goal is a dative phrase realized as a clitic; the first person dative clitic can only be doubled by a dative strong pronoun, while the *la*-phrase is out (11b'). The relevant example is however (**??**), an attested Google example, where the Goal is a dative, and the dative clitic is doubled by a dative *la*- phrase. As the comparison of (**??**) and (**??**) shows, the *la*-phrase is interpreted as a dative only when it co-occurs with a dative clitic.

(11)

Romanian
a. *Pachetul a ajuns* ***la mine/la Londra*** *ieri.*
parsel.the has arrived at I.ACC/ at London yesterday
'The parsel got to me/ to London yesterday.'
b. *Pachetul* ***mi****=a ajuns şi mie ieri.*
parsel.the I.**DAT**= has arrived also I.DAT yesterday
b.' *Pachetul* ***mi****=a ajuns (**la mine)* *ieri.*
parsel.the I.DAT=has arrived (at.I.ACC) yesterday
'The parsel got to me too yesterday'
c. *Acum* ***le****=au venit* ***la mulți*** *deciziile*
now they.DAT=have come at. many.ACC decisions
*de recalculare a pensiilor*
of recalculation pensions.the.GEN

'Now many have got their decisions for recalculation of their pensions.'

In the rest of this section I examine the internal structure of the *la*-phrase when it is a dative, i.e. when it is clitic-doubled. As a dative-marker *la* is puzzling, since it is described as a "dative preposition", but, as seen above in (**??**), it clearly assigns accusative case to its complement (**??**). On the other hand, *la*-phrases may take dative clitics (**??**), and, as well-known, clitics and their associates always agree in Case. This suggests that, as a dative marker, *la* simply assigns Case to a DP *sub-component* of the dative phrase, while the whole *la*-phrase has *an uninterpretable valued dative feature* (**??**), which agrees with the clitic's Case feature. The marker *la* has become an *internal constituent* which extends the dative phrase (**??**), i.e. a K(ase) marker like the marker of DOM (**Lopez2011**). An additional role of this morpheme is that of a category shifter, which reanalyzes the PP into a KP, therefore, an extended DP.

The categorial change from P to K may be viewed as an instance of *downward re-analysis* (**RobertsRoussou2003**), likely to have occurred out of the need to improve the correspondence between syntactic features and their PF representation.

(12)

PP
qp
P DP
[Case:___] [*u*Case:Acc]
[Loc/Goal] ([*i*Person])
**la**

(13)

KP [Case:Dat]
qp
K DP
[*u*Case:Acc] [*u*Case:Acc]
[*u*Case:Dat]
**la**

In time, there gradually emerged two different changes in the function of the Locative PP in (**??**). One has been the extension of *la* from verbs that have Goals or Possessor-Goals in their a-structure (verbs of giving and throwing) to verbs

that select Beneficiaries (e.g. verbs of creation, like *face* 'make, do', *coace* 'bake', etc.), and even verbs that select Maleficiary or Source, i.e. the opposite of Goal, (e.g. *fura* 'steal'). Thus the preposition *la* widens its thematic sphere, but it is partly desemanticized, since the thematic content of the *la*-phrase almost completely follows from the descriptive content of the selecting verb. Secondly, while any kind of DP may assume the Location/Goal $\theta$-role, these extended interpretations (e.g. Beneficiary, Maleficiary) are compatible only with nouns high in the AH. As explained, such nouns grammaticalize their inherent human feature as a syntactic [Person] feature (**Richards2008**).

(14)

Romanian
Possessor-Goal
*Mama (le)=a dat prăjituri copiilor/* ***la*** *copii.*
mother.the they.DAT=has given cakes children.the.DAT/ at children
'Mother gave cakes to the children.'

(15)

Romanian
Beneficiary
*Mama (le)=a copt prăjituricopiilor/* ***la****copii.*
mother.the they.DAT=has baked cakes children.the.DAT/at children
'Mother baked cakes *for* the children.'

(16)

Romanian
Maleficiary/ Source
*Nişte vagabonzi le-au furat copiilor/* ***la*** *copii jucăriile.*
some tramps they.cl.DAT-have stolen children.the.DAT/at children the toys
'Some tramps stole the toys from the children.'

At this point, there was an imperfect match between features and their exponents, since *la* had partly lost its thematic content, and an obligatory syntactic [+Person] feature in the nominal matrix had no PF realization (**??**). This tension led to the re-analysis of *la* as a PF exponent of the [Person] feature of the noun.

As such *la* becomes a higher K part of the nominal expression, where K is a spell-out of [*i*Person]. Syntactically, K is a Probe that values an uninterpretable [*u*Person:___] feature of the DP through agreement (**??**).

(17)

KP[*i*Person, *iφ*,±Def, *u*Case: DAT]
qp
K DP
**[*i*Person]** wo
[*u*Case:___] D NP
[*u*Case: DAT ] [+D [+N]
| [±Def] [*iφ*]
| [*uφ*] **[*u*Person]**
**la** [*u*Case:Acc] [+Animate]

Compared to (**??**), representation in (**??**) is "simpler", since the grammatical feature [*i*Person], synchretically realized by N in (**??**) is realized as a separate lexical item in (**??**).

Like Inf-DAT, *la*-DAT are sensitive to the AH, but the selectional properties of *la* are not identical to those of the dative inflection. For instance, both types of datives are compatible with names of *corporate bodies (??),* but only Inf-DAT are also felicitous with *abstract* nouns, *la*-DAT are not (**??**).

(18)

Romanian
*(Le)=a împărţit banii la nişte asociaţii caritabile /*
(they.DAT) has handed-out money.the at some associations charitable
*unor asociaţii caritabile.*
some.DAT associations charitable
'He handed out the money to some charities.'

(19)

Romanian
*A supus proiectul *la atenţia bordului/*
has submitted project.the at attention board.the.GEN/

*atenției bordului.*
attention.the.DAT board.the.GEN
'He submitted the project to the board's attention.'
*Conclusions so far*
1. Nouns may come from the lexicon with an unvalued [*u*Person] feature.
2. Dative *la* is a K component which spells-out an [*i*Person] feature, historically resulting through downward re-analysis of the homonymous [Location] preposition. K selects DPs which are [*u*Person] and values their [*u*Person] feature.
3. A KP nominal expression is complex, since it contains a smaller DP. The K-head case-licenses the smaller DP. K also contains an *uninterpretable valued* dative feature checked during the derivation.

## 2.2 2.3 Why a clitic is sometimes required

In theory, like any functional head, the clitic should be a response to some internal need of the *la*-phrase. It is plausible that dative *la*, an [*i*Person] spell-out, further eroded semantically, becoming an uninterpretable [*u*Person], at least sometimes[3]. The KP continues to have all the features in (**??**), except that [Person] is uninterpretable (**??**).

(20)

KP[ *u*Person, +D, ±Def, *iφ*, *u*Case: Dat]

Given this feature structure a pronominal clitic is required to derivationally supply an [*i*Person] feature. Clitics are known to be sensitive to features like [+D, +Def, ...] and cannot combine with nominal projections smaller than DP. They may, however, combine with projections larger than DPs, i.e. KPs, where these features are specified, since they percolate from the D-head.

Concluding, *la*+DP constituents are KPs, where K is a dative head. With verbs of movement and location including ditransitive ones, *la* + DP are also still analyzable as PPs expressing Goal/ Location.

**2.4. The internal structure of the inflectional dative phrase**

[3] An important empirical generalization (**Cornilescu2017**) regarding Romanian dative clitics is that they are obligatory for non-core datives, but optional for core datives. In the analysis proposed here, this means that the [Person] feature on dative KPs is uninterpretable by default and can be interpretable only for *core datives*, which have the property of being s-selected by the verb.

The analysis of [$la_K$] above suggests a parallel treatment for the dative morphology, $K_{dative}$, which I will also consider a Person exponent. Nouns inflected for the dative are endowed with [*u*Person__], given their sensitivity to the AH. This feature is valued KP-internally, when $K_{dative}$ has an interpretable Person feature, i.e. K is [*i*Person, Case-Dative___]. Alternatively, if K's semantic feature is bleached, then $K_{dative}$ is [*u*Person] and simply realizes Case. In such situations, CD is obligatory and [*u*Person] is checked KP-externally, using a clitic derivation.

Importantly, like *la*-DAT, Inf-DAT are *ambiguous between a KP and a PP categorization*. The PP analysis is, for example, required for adjectives that select Inf-DAT complements (e.g. *util* 'useful', *folositor* 'useful', *necesar* 'necessary'). Since adjectives are not case-assigners, the Dative is licensed by a null preposition which finally incorporates into the adjective.

Inside *vP*, when the Inf-DAT is CD-ed or, at least, may have been CD-ed, the Inf-DAT is analyzable as a KP. However, when doubling is impossible, the Inf-DAT *must be projected as a PP, since otherwise it cannot check either Case or Person*. One example is that of sentences containing two Inf- DAT PHRASES, of which the higher *must* be CD-ed and the lower *cannot* be CD-ed (since they compete for the same *v*P internal position at some point).

(21)

*Ion* ***şi****=a vândut casa* ***unor*** *rude/* ***la*** *nişte rude.*
Ion he.REFL.**DAT**.=has sold house.the some.**DAT** relatives/**at** some relatives
'Ion sold his house to some relatives.'

*Some results*

1. Datives inside *v*P –whether *la*- DAT or Inf- DAT - are uniformly either KPs or PPs.

2. *La*- and $K_{dative}$ are exponents of Person which encode sensitivity to the AH.

3. When K is [*i*Person], the Person feature of datives is checked KP-internally, while the Case feature is checked derivationally. The clitic is unnecessary and thus impossible.

4. When K is [*u*Person], the ultimate exponent of Person is the clitic, whose presence is mandatory.

*A consequence*

Given the feature structure of datives [*u/i* Person, *u* Case: Dative], the applicative verb that licenses them should be endowed with the following features: $V_{appl}$[ *u*Person, *u*Case:___].

# 3 Briefly on the syntax of Romanian DOM

## 3.1 3.1. Background

The obligatory marker of Romanian DOM is the space preposition *pe* 'on'/ 'towards'/ 'against', similar to Spanish *a*. Unlike *a,* however, *pe* assigns accusative case to its object. Therefore, Romanian is not among the many languages where DOM-ed DO and IOs share the same dative/oblique case, sameness of case representing an explicit connection between the two (**ManziniFranco2016**).

One of the reviewers stresses that DOM *pe* derives from the *directional* uses of the Old Romanian (=OR) preposition *p(r)e*, which was often used with directional/Goal verbs (e.g. *striga* 'call', *asculta* 'listen to', *întreba* 'ask'), as well as with verbs which entailed the presence of an opponent (e.g. *lupta* 'fight'), as in the following example:

(22)

Old Romanian (**HillMardale2017**: 395).
*au ascultat* ***pre mine***
have listened DOM me
'they have listened to me'

Significant research on the history of DOM has demonstrated that in OR the presence of the functional preposition *p(r)e* was a means of upgrading the object, signaling a *contrastive topic* interpretation (**Hill2013**, Hill & Mardale, 2017). Furthermore, in OR, *p(r)e* was not restricted to animate nouns, as shown in (**??**) below:

(23)

Old Romanian (**HillMardale2017**: 396)
*şi deaderă lui Iacov* ***pre bozii*** *cei striini .*
and gave DAT Jakob DOM weeds.the the foreign
'And they gave to Jakob the foreign weeds'

In Modern Romanian (ModR), the noun classes compatible with DOM have been reduced to animate, predominantly [+human] nouns. This restriction is in line with the change in the discourse function of DOM, "from a marker of Contrastive Topic [...] to a *backgrounding device* for the [+human] noun in the discourse (**Hill2013**)". Thus in ModR, the most frequent discourse role of DOM-ed

objects is that of *familarity topic*, a role which is strengthened by the frequent association of DOM with CD (**HillMardale2017**).

Reinterpreting these important results in the framework of our analysis, it follows that although they do not share Case, DOM-ed DOs and IOs share other properties in Romanian, too. Thus, DOM is sensitive to the AH, which means that both DOM-ed DOs and IOs grammaticalize [Person].

Similarly, the DOM marker *pe* 'on'/ 'to(wards)' can easily be analyzed as a K head (**Lopez2011**, **HillMardale2017**), a *spell-out of Person*, behaving in all respects like dative *la*, except that *pe*-phrases check an accusative feature. Tentatively, the feature structure of *pe*-KPs is as follows: [*u*/*i*Person, *u*Case:Acc]. When *pe* selects the [*u*Person] option, a clitic extends the KP, forming a chain that ultimately values the [*u*Person] feature.

In harmony with its familiar topic discourse role, DOM is also sensitive to the DefH (**??**), which arranges nominal expression by order of their referential stability. Thus, DOM is obligatory for personal pronouns and proper names, which are always referentially stable, it is felicitous but optional with definite and indefinite DPs, and it is impossible with determinerless nouns.

(24)

personal pronouns > proper names//> definite phrases > indefinite specific> indefinite non-specific > // bare plurals> bare singular.

In its turn, CD is *possible* and *optional* for all accusative KPs, while being *obligatory* only for *personal pronouns*. Finally CD is not possible for bare DOs, i.e. it operates on KPs, not DPs, presumably because only KPs are marked for [Person].

## 3.2 3.2. The syntax of DOM

As for the syntax of DOM, I have provisionally adapted to Romanian the analysis in **Lopez2011**. Lopez maintains the classical view that accusative case originates in *v*. In DOM languages there are two strategies of checking the accusative. Some objects remain *in situ* and satisfy their Case requirement by *incorporation* into the lexical verb V, which finally incorporates into *v*. DOM-ed objects *scramble* to the specifier of an αP located between the little *v* and the lexical VP, a position where they are directly probed by little *v*, as in (**??**).

(**??**) *v*P

ru

Su v'

ru
*v* αP
ru
α VP
ru
V DO

The background assumption is that the grammar operates with nominals of different sizes (??), which may have different syntactic and semantic properties.

(25)

KP > DP > // NumP > NP

In Romanian the cut-off point between objects that scramble and objects that remain *in situ* is the NumP: i.e. NumP and NPs remain *in situ*, DPs may scramble, KPs *must* scramble. On the semantic side, *in situ* objects are interpreted as *predicates,* objects that scramble are interpreted as *arguments.*

# 4 Dative clitics and CD-Theory

## 4.1 4.1. On clitics

As already shown, with CD, both dative and accusative clitics select KPs [*u*Person], showing sensitivity to the AH. Accusative clitics also observe the DefH. For instance they exclude bare quantifiers; in contrast, dative doubling is possible for *any nominal* provided that it has an overt determiner (**Cornilescu2017**).

For the current analysis what matters most is that CD-ed DOs and IOs *exit the* *v*P, passing through a *v*P-periphery position which allows them to bind and out scope the subject in Spec, *v*P (Dobrovie **Sorin1994**, Tigău 2010, CDT 2017). Binding of the subject is impossible for undoubled objects. Thus in (??), the CD-ed dative *fiecărui profesor* 'every.DATprofessor' binds and outscopes the preverbal subject *câte doi studenţi* 'some two students'. Similarly, in (??), the post-verbal doubled DO may bind a possessive in the preverbal subject, but this is not possible for the undoubled DO.

(26)

Romanian
*Câte doi studenţi i=au ajutat fiecărui profesor.*

some two students he.DAT=have helped each.dat professor
'Each professor was helped by two students.'

(27)

Romanian
a. *Muzica lor$_i$ îi =plictiseşte pe mulţi$_{i/j}$*
music.the their they.ACC bores DOM many
'Their own music bores many people.'
b. *Muzica lor$_{*i/j}$ plictiseşte pe mulţi$_i$.*
music.the their$_j$ bores on many$_i$
'Their music bores many people.'

The identity of the *v*P periphery projection through which clitics pass on the way to T is still under debate. Some researchers (e.g. **Ciucivara2009**) propose that this is a projection where clitics check Case, while others argue that it is a PersonP at the *v*P periphery (Belletti, 2004, Stegoveč, 2015), in whose specifier any [*u*Person] nominal can value this feature (**??**). In line with the analysis above, I have adopted the second proposal. Since Person is an agreement feature, rather than an operator one, Spec, PersonP is an *argumental position*. In conclusion, before going to the Person field above T (**Ciucivara2009**), the clitic phrase reaches a *Person P*, at the *v*P periphery, above the subject constituent (**??**).

(28)

PersonP
qp
KP Person
[*u*Pers] qp
Person *v*P
[*i*Person] e
Subject…

## 4.2 4.2 A suitable clitic theory: Preminger2016

Of the many available theories of CD, I have selected **Preminger2016**, which is theoretically more motivated and also simpler; for instance, it does not require a big DP. Rather the starting point is a standard DP/KP. In Preminger's interpretation, CD is an instance of *long D-head movement*, as in (**??**). The D moves from

its DP position and adjoins to little *v*, skipping the V head (which is why this is an instance of long head movement).

(29)

*v*P
ei
$D^0$-$v^0$ VP
ei
V **DP**
ei
$D^0$ NP

What is specific to the CD chain is that *both copies of D are pronounced*, the higher one is the clitic, the lower one is (part of) the associate DP. Pronunciation of two copies of a chain is allowed only if a phasal boundary is crossed (the DP boundary in (**??**)). The two copies are often phonologically distinct.

# 5 On the syntax of ditransitives

## 5.1 5.1 Previous results

My analysis of ditransitives assumes the syntax of DOM above. For reasons presented in detail elsewhere (CDT 2017), I have adopted a *classical derivational analysis* of the dative alternation (Harada & Larson, 2009, Ormazabal & Romero, 2017). Previous research on Romanian ditransitives (**DiaconescuRivero2007**), Cornilescu e.a. 2017) has brought to light several properties relevant for ditransitive binding configurations.

a. Binding evidence points to the fact that in Romanian ditransitives the internal arguments show a Theme-over-Goal structure. Thus, as sentences (**??**) and (**??**) above indicate, the bare DO can bind, not only into an undoubled dative, but also into a doubled one. A Theme-over-Goal base configuration has also been argued for other Romance languages (see, for instance, Cepeda & Cyrino (this volume) on Portuguese).

b. In ditransitive constructions, the DO and IO show *symmetric binding potential*, so that there is often an ambiguity between direct and inverse binding for the same pattern. The preferred reading is the one where the surface order corresponds to the direction of binding. For lack of space I will ignore these ambiguities in the analysis below.

c. There is no difference between the CD-ed and the clitic-less constructions, as far as c-command configurational properties are concerned (CDT 2017), i.e. the DO and the IO have symmetric binding abilities *irrespective of the presence of the clitic*.

I claim that Romanian possesses a genuine alternation between a Prepositional Dative construction, similar to the *to*-construction in English, and a pattern similar to DOC, where the dative is analyzed as a KP. In the Prepositional Dative construction, the P is *null* and has the usual role of case-licensing its KP complement. If the null P incorporates, the dative is licensed by an applicative head with the features $V_{appl}$ [*u*Person, *u*Case:____], for reasons explained in section 2.4 above.

The *focus of the analysis that follows* is to understand why some otherwise available binding configurations become degraded when the DO is DOM-ed.

In order to bring out the contribution of DOM in ditransitive constructions, we compare derivations where the DO is a DP, not a KP, in which case it is not marked for [Person], with derivations in which the DO is DOM-ed, and has [Person] marking. The IO is also successively a PP, a KP, a cl+KP.

## 5.2 5.2. The DO is a DP (i.e. it is not DOM-ed)

*In the basic ditransitive configuration* the dative is a PP. This configuration, which corresponds to example (**??**) above *unambiguously* expresses a Theme > Goal interpretation (well-attested). The null P checks Case, and K is [*i*Person], irrespective of whether the IO is an Inf-DAT or a *la*-DAT.

(30)

VP
ep
$DP_{theme}$ V'
Case:[ACC] to
V PP
ei
P KP
[∅] [*u*Case:DAT, *i*Pers]

When null P incorporates, as in (**??**), $V_{appl}$ [*u*Pers, *u*Case:___] is projected. In (**??**), both nominals in the domain of $V_{appl}$ could value the Case feature of $V_{appl}$, but only the Goal can value its [*u*Pers___] feature, since the Theme is a DP not

marked for [Person]. Suppose a derivation is intended where the IO *binds* and *precedes* the DO, as in example (**??**) below. In this case, the DO need not move, while the IO should raise past it to Spec, Appl. This derivation is straightforward. $V_{appl}$ is allowed to case-license the Theme first, since $V_{appl}$ encounters the DO first, when it probes its domain. Next, adopting the locality theory in **Dogget2004** in order to maintain the standard direction of Agree, the Goal moves to an outer Spec,VP, above the Theme. In this position it can be probed by $V_{appl}$, which thus values its own [*u*Pers] feature. At the following step, the Goal KP moves further up to Spec, $V_{appl}$P where it checks Case by Agree with little *v*.

(31)

*v*P
ep
*v* $V_{appl}$P
ep
$V_{appl}$ VP
[*u*Pers:__, *u*Case:__] ep
$DP_{theme}$ V'
Case:ACC] ei
V $KP_{goal}$
P+V [*u*Case:DAT, *i*Pers

(32)

Romanian (CD**Tb2017**: 201)
IO before DO; IO > DO
*Recepționerul arătă* ***fiecărui turist*** $_{i}$ *camera* ***lui*** $_{i}$,.
receptionist.the showed each.DAT tourist room.the his.
'The receptionist showed each tourist his room.'

Cliticization is unnecessary, since the Goal is s-selected, and its Person feature is interpretable. Symmetric binding is predicted to be available, since in the initial structure Theme c-commands Goal, and in the derived structure(s) Goal c-commands Theme. Next we consider (**??**), where a CD-ed IO binds and precedes a bare DO.

(33)

*Statul* ***le****=a restituit* ***foştilor proprietari***
state.the t hey.DAT=has returned former.the.DAT owners
*casele naționalizate.*
houses.the natioanlized
'The state returned the nationalized houses to their former owners.'

The presence of the clitic shows that the dative KP is [*u*Pers], as in (**??**). For the sake of simplicity I will again consider a derivation where the DO does not scramble and $V_{appl}$ checks its Case feature through Agree. At this point, both of the Goal's features are unchecked, and $V_{appl}$ still has an unvalued [*u*Person] feature.

(34)

ApplP
qp
Appl VP
[*u*Pers:__] qp
[*u*Case:___] $DP_{Theme}$ V'
z------ [Case:ACC] wp
V $KP_{Goal}$ [*u*Pers:___, Case:DAT]

The Goal moves to a position (an outer specifier of VP) where it is accessible to $V_{appl}$ and there is Agree between $V_{appl}$ and the dative, which now shares a [*u*Person] feature, but *neither feature is deleted*, since both occurrences of the features are *unvalued and uninterpretable*. The two features are related by agreement and count as instances of the same feature (**PesetskyTorrego2007**). As in the preceding derivation, the Goal raises to Spec, Appl and checks Case with little *v*, but its [*u*Person] feature is still unvalued. This is what *forces movement to the PersonP, at the vP-periphery*, as in (**??**). When all the features of the Goal have been valued, the Goal undergoes cliticization.

(35)

PersP
ei
Pers *v*P
[***i*Pers**] ri
$DP_{Goal}$ *v*P
[***u*Pers**] ro

Su *v*'
ei
*v* $V_{Appl}$P
ei
$DP_{Goal}$ $V_{Appl}$'
ei
$V_{Appl}$ VP
[*u*Pers]ei
z---$DP_{Goal}$ VP
[*u*Pers]ei
$DP_{Theme}$ V
ei
V $DP_{Goal}$

CD was obligatory because the Goal's Person feature could not be checked inside *v*P.

### 5.3 5.3 When DOM-ed themes and dative goals combine

Sentences with DOM and datives create locality problems, since both objects are KPs marked for the same [*i/u* Person] feature and both may value the [*u*Person] feature of $V_{appl}$. The empirical facts are summed up in (**??**):

(36)

a) A *pe*-marked DO binds an undoubled IO without problems (sentence (**??**) above)

b) A *pe*-marked DO cannot bind a CD-ed IO (sentence (**??**) above).

c) A CD-ed *pe*-marked Object can bind an IO, irrespective of CD (sentences (**??**)-(6) above).

These facts follow from the analysis. A natural explanation for why a *pe*-marked object can bind an IO (= (**??**)) is that, in this case the IO stays low and *may be (re)analyzed as a PP*, thus not competing with the DO.

(37)

*v*P
qp
*v* *α*P

[*u*Case:__] qp
$KP_{DO}$ $\alpha$P
*i*Pers eo
*u*Case:ACC $\alpha$' VP
eo
<$KP_{DO}$> V'
eo
V PP
eo
P $KP_{IO}$

The *pe*-marked DO in (??) scrambles, and it is only for this reason that a landing site is projected between little *v* and VP, as in Lopez's analysis. The DO is [*i*Person] and does not need to move beyond its case checking position (Spec, $\alpha$P). Let me turn to situations (37b-c) now. When the IO is CD-ed and there is DOM, the result is ungrammatical, as in sentence (??) above. A CD-ed *pe*-object restores grammaticality, as in (??) above. Since CD-ed DOM-ed objects are unproblematic, it could be suggested that sentence (??) is ungrammatical because, at the current stage in the evolution of Romanian, *pe*-DOs are well-formed only *if they are also CD-ed*. The following Google example shows however, that CD is *not obligatory* for *pe*-DOs, except for personal pronouns.

(38)

Romanian (Google)
*Zavaidoc a tocmit* ***pe un asasin*** *care a injunghiat=o mortal*
Zavaidoc has hired DOM an assassin who has stabbed=she.ACC mortally
*pe Zaraza.*
DOMZaraza
'Zavaidoc hired an assassin who stabbed Zaraza to death.'

Therefore, the marginality of (??) cannot be attributed to the absence of the clitic, but to some kind of "interference" between the *pe*-DOs and CD-ed IOs. I suggest that the problem concerns the locality of Agree, interfering with the feature structure of the two objects.

Consider the following intermediate stage (??) in the derivation of sentences like (??). If the IO is CD-ed, then its Person feature is uninterpretable and the dative KP must check both Person and Case against appropriate functional heads. On the other hand the DOM-ed DO is [*i*Pers] (since it does not need a clitic) and must only value its Case.

When $V_{Appl}$ probes its c-command domain, the DOM-ed object is the first that it encounters, so $V_{Appl}$ agrees with the *closer goal* and values its own Person and Case features and it further attracts the KP-DO to its Specifier, since, by assumption, DOM-ed DOs scramble (**Lopez2011**). The IO is trapped in its merge position, and cannot check Case and Person anymore, so that the derivation crashes.

(39)

*v*P
eo
*v* $V_{Appl}$P
qp
$V_{Appl}$ VP
***u*Pers** qp
*u*Case:Acc $KP_{DO}$ V'
! ***i*Pers** eo
z_____*u*Case:Acc V $KP_{IO}$
[***u*Pers**]
[*u*Case:Dat]

The problem disappears if the DO is CD-ed, as in sentences (**??**), (**??**) above. For simplicity's sake I will examine sentences where the CD-ed *pe*-DO binds an undoubled IO. In this case, the *pe*-DP is endowed with an uninterpretable Person feature, which will be checked in the *v*P periphery Person P, just as with datives.

The accusative clitic's role is syntactic: intuitively "it moves the Theme out of the Goal's way" (**Anagnostopoulou2006**). The DO moves to Spec, $V_{Appl}$, a position where it can be probed by little *v* which checks its accusative Case. Next it targets the PersonP at the *v*P periphery, where it Agrees with the [*i*Person] head and values [*u*Person]. When all the DO's features have been checked, cliticization is mandatory. The features of $V_{Appl}$ have not been valued yet and the IO is free to move to the outer Spec, VP, where the IO is probed by $V_{appl}$ checking its case. The IO, whose person feature is interpretable, values the [Person] feature of $V_{appl}$ and needs to raise no further. Resort to the Accusative clitic is a repair strategy: while the *DOM-ED DP $_{theme}$>**cl**- DP $_{goal}$ pattern is severelydegraded, the pattern **cl**- DOM-ED DP $_{theme}$>**cl**-DP $_{goal}$, which differs from the preceding only through the presence of the accusative clitic, is fully grammatical.

(40)

PersP
ei
Pers *v*P
[*i*Pers] ei
$KP_{theme}$ *v*P
[*u*Person] ei
[ACC] $DP_{Agent}$ *v*'
ei
*v* $V_{appl}P$
[Case_] wp
$KP_{Theme}$ $V'_{appl}$
[*u*Pers] ei
[ACC] $V_{Appl}$ VP
*u*Pers ei
z_____$KP_{Goal}$ VP
[*i*Pers] ei
$KP_{Theme}$ V'
[*u*Pers]ei
V <$KP_{Goal}$>
[*i*Pers]

## 6 Some theoretical implications of the analysis

Summing up the data we started with in (??) – (??) above and considering the categorial status of the arguments, as well as their (non)-clitic status, we obtain the patterns in (??).

(41)

a. KP-DO *KP-IO/PP-IO
b. Cl-KP KP IO
c. Cl-KP Cl KP IO
d. *KP-DO Cl-DP IO
e. DP-DO (cl)-KP-IO

The critical property of the patterns is the need to check the [*u*Person] against the Appl head. Sentences of type (??), where the DO is a bare DP, which does not need to check Person, are fine irrespective of whether the IO is doubled or undoubled. In contrast, patterns (??)-(42d) contain two nominals (KPs) that check

Person, the DOM-ed direct object and the IO. These types of sentences rely on the configuration in (??), where the same Appl head should Agree with two arguments, a configuration familiar from the analysis of PCC effects (see Sheehan this volume and the references therein).

(42)

Appl [*u*Person] DOM DO [*i*/*u*Person] IO [*i*/*u*Person]

What differentiates between (??) and (??)-(42d) is that in (??)- (??), but not in (??), not only the IO, but also the DO *agrees with Appl.* Recall that according to **Preminger2017**, PCC effects are likely to occur whenever the relevant DO agrees with *v* or Appl. Indeed the distribution of the stars in (??)- (??) may be restated as a form of PCC, as also suggested for Spanish ditranstives with DOM, by **OrmazabalRomero2013**.

(43)

*PCC like effects in Romanian ditransitives*

In a combination of DOM-ed DO and IO, the IO can be doubled (or a clitic) only if the DO is also doubled (or a clitic).

The admissible patterns in (??)-(42d) fall in line with this generalization. Pattern (??), where neither argument is provided with a clitic would be ungrammatical if the dative had been a KP[*u*Person]. This ungrammaticality is not detected, since the dative is a second, locative argument and can be analyzed as a PP which checks the Case and Person feature of the DP, PP internally, as shown in the discussion of (??) above. Projection as a PP in (??) functions as a repair strategy. In the ungrammatical (??), the undoubled DO blocks the lower clitic-doubled dative, preventing it from checking Person (and Case) and producing a PCC-like effect. Patterns (??)-(42c) are fine since the DO and IO arguments check Person against different heads (Person P, ApplP, respectively), avoiding the problem of multiple arguments agreeing with the same head.

Finally, the data analyzed in this paper provide further evidence for Sheehan's (this volume) insight that PCC-like phenomena do not depend on (non)clitic status of the arguments, but on the emergence of a configuration of type (??). In the ungrammatical pattern (??)/(42d), the DO, in the intervener role, is not a clitic, only the IO is.

## 7 Conclusions

- DOM-ed DOs interfere with IOs since both are sensitive to AH, codified as [Person].
- The interaction of DOM-ed DO and IOs in Romanian is a classical locality problem based on the fact that the same applicative head matches two nominals in its c-command domain, regarding [Person]. The head agrees with the closer object, i.e. the DO. In such configurations, the IO must be a PP, i.e. it cannot be doubled.
- When the DO object is CD-ed, the IO may be a KP and accessing $V_{appl}$ and it may even be CD-ed.

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# Chapter 6

# PCC effects in causatives and ditransitives and the dative/locative distinction

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**Abstract**. This paper provides further evidence that the Person Case Constraint (PCC) in Romance is not limited to clitic clusters. Previously, this has been shown only for Spanish (**OrmazabalRomero2013**), but I show that, in Italian, French, and Catalan causatives, a $1^{st}/2^{nd}$ person direct object is incompatible not only with dative clitics but also with full dative arguments (see also **Postal1989**, **Bonet1991**). This is different from the manifestation of the PCC in ditransitive contexts where only dative clitics are ruled out. The difference follows, I argue, if ditransitives in these languages have two underlying structures so that a DP introduced by 'a/à' can be either dative or locative, in line with broader cross-linguistic patterns (see **Harley2002**; **Demonte1995**, **Cuervo2003** on Spanish; **Anagnostopoulou2003**, **Fournier2010** on French; Holmberg, Sheehan & van der **Wal2018** on Italian, and the discussion in the introduction to this volume). For this reason, indirect object DPs marked with a/à must trigger PCC effects in causatives but not in ditransitives, as only in the former are they unambiguously dative. Further support for this claim comes from Spanish, a language which morphologically distinguishes locative vs. dative phrases in ditransitives via clitic doubling (**Cuervo2003**) and which shows PCC effects with all animate direct objects (**OrmazabalRomero2007**, 2013). I show that these facts are compatible with approaches to the PCC based on intervention (**Anagnostopoulou2003**, 2005 amongst others), but raise challenges

for those which rely crucially on the weak/clitic status of datives (**Bianchi2006**, **Stegovec2017**).

## 1 The Person Case Constraint

Like many languages, French, Spanish, Catalan and Italian are subject to the Person Case Constraint (PCC), originally called the **me lui constraint* by **Perlmutter1971**[1]

() Strong Person Case Constraint (based on **Bonet1991**: 181-182)

- – * · In a combination of a direct object and an indirect object, the direct object has to be third person. If both the indirect object and the direct object are phonologically weak.

In Romance languages, this strong version of the constraint rules out the possibility of a 1st/2nd person direct object clitic (glossed here as ACC) in the presence of a dative clitic, for example, the following combination of 1st person accusative and 3rd person dative clitics (see **Perlmutter1971**, **Kayne1975**, **Postal1981** on the PCC in French):

() French (**Kayne1975**)
*Paul me lui présentera.
she me.ACC= him.DAT= present.3SG.FUT
Intended: 'Paul will introduce me to him.'

The presence of (**??**) is seemingly crucial to the definition of the PCC because the effect disappears, in ditransitives, where the indirect object is a non-clitic (**Kayne1975**, **Rezac2008**). The meaning intended to be conveyed by (**??**) can easily be conveyed using an unfocussed tonic pronoun introduced by à, which is exceptionally allowed in such contexts:[2]

() French (**Kayne1975**)
Paul me présentera à lui.

[1] Though the PCC was first discovered as the **me-lui constraint* and investigated in Romance (**Perlmutter1971**), it has been found to hold in a wide range of unrelated languages (see **Bonet1991**, **Albizu1997**, **Rezac2008**, **Haspelmath2004**, **AdgerHarbour2007**). In fact, one of the key contributions of **Bonet1991** was to unify the Romance constraint with a parallel effect observed in rich agreement systems. I thank an anonymous reviewer for asking me to clarify this. See also **Bonet2007** for an overview.

[2] I gloss *a/à* as 'to' throughout for expositional purposes, but one of the main claims of this paper is that sometime this morpheme is a realisation of dative case marking and at other times it is a locative preposition.

Paul me.ACC= present.3S.FUT to him
'Paul will introduce me to him.'

At least for some speakers, Italian, Spanish and Catalan seem to be subject to a weaker form of the PCC, as described by **Bonet1991**, again building on **Perlmutter1971**: [3]

() Weak Person Case Constraint (based on **Bonet1991**: 181-182):

- – * · In a combination of a direct object and an indirect object, if there is a third person, it has to be the direct object.
- – * · If both the indirect object and the direct object are phonologically weak.

In the Romance context, this weaker version of the PCC allows for the possibility of a $1^{st}/2^{nd}$ person accusative clitic as long as the dative is also $1^{st}/2^{nd}$ person, with many speakers preferring a reading whereby the $2^{nd}$ person clitic functions as the direct object in such cases (see **Bonet1991**: 180, fn 5 citing a personal communication from Alex Alsina on Catalan; **OrmazabalRomero2010**: 332 on Spanish, but see also the discussion in **Bonet2007**):

() Italian (**Bianchi2006**) [4]
%Mi ti ha affidato.
1SG= 2SG= has entrusted
'He entrusted you to me/me to you.'

() Catalan (**Bonet1991**)
%Te' m van recomanar per la feina
2SG= 1SG PST recommend for the job
'They recommended me to you/you to me for the job.'

() Spanish (**Perlmutter1971**)
%Te me recomendaron
2SG= 1SG recommended.3PL
'They recommended me to you/you to me.'

French is usually reported to disallow this clitic combination altogether (**Kayne1975**, **Quicoli1984**) and certainly combinations of $1^{st}$ and $2^{nd}$ person objects seem to be

[3] There are other subtle differences between the languages too, which require an explanation, notably order in the clitic cluster. A more substantive difference is that Italian, like Spanish and Catalan and unlike French, allows 1st/2nd person reflexive direct objects to combine with dative clitics (see **Kayne1975**, **Bianchi2006**). We abstract away from this difference here for reasons of space.

[4] Note that Bianchi actually gives this example to be ungrammatical but then discusses at length the fact that some speakers accept such examples. I represent this with %.

more restricted in French than in the other three languages, though **Bonet1991** cites **SimpsonWithgott1986** who report that some speakers nonetheless allow them.

**OrmazabalRomero2007** discuss the weak/strong distinction in Romance and note that there is substantial sensitivity to individual verbs and variability across speakers regarding the acceptability of examples like (**??**)-(7). For this reason, they conclude that there is no clear-cut distinction between strong and weak PCC 'languages'. In fact, the fact that in combinations of 1st and 2nd person objects, it is almost always the 2nd person clitic which must be the direct object suggests rather that there is merely variation regarding the extent to which person features are decomposed in PCC contexts (see also **Anagnostopoulou2005** for an account along these lines). This can also be seen in Spanish leísta dialects in which 3rd person animate direct objects also trigger PCC effects (**OrmazabalRomero2007**, 2010, 2013):[5]

() Spanish (**OrmazabalRomero2007**: 321)
Te lo/ *le di
2SG.DAT= 3SG.M.ACC/ him.ACC= gave
'I gave it/him to you.'

In these leísta dialects, animate 3rd person singular masculine direct objects are marked with the clitic *le,* rather than *lo,* which is usually reserved for inanimate 3rd person singular masculine direct objects. According to Ormazabal and Romero, the animate direct object clitic *le* is ruled out in (**??**) in the presence of a dative clitic, as a PCC effect. In such contexts, the inanimate masculine 3rd person singular direct object clitic *lo* is possible and can exceptionally be interpreted as either animate or inanimate. The implication is that the PCC can apply differently in different languages, depending on which features are syntactically active. In Spanish, animacy is marked also on 3rd person clitics and so animate 3rd person direct objects also trigger PCC effects. In French, Italian and Catalan, animacy is not syntactically active in 3rd person contexts, and so animate arguments do not trigger PCC effects unless 1st/2nd person. Likewise, for most French speakers, [person] is not decomposed into [speaker] and [addressee], and so we see only the strong PCC.

In what follows, I will not address low level variation across varieties (and speakers) regarding which precise person features are sensitive to the PCC. Rather,

[5]The observant reader will notice that I have not specified that only animate 3rd person singular masculine *clitics* induce PCC effects. Ad we shall see below, this is because animate full DP direct objects marked with personal 'a' also trigger PCC effects in Spanish (see **OrmazabalRomero2013**).

I will focus mainly on 'strong PCC contexts', in which a 1st/2nd person direct object is combined with a 3rd person dative as this combination is robustly ruled out in all the Romance languages under discussion.[6] This is because our focus here is to show that the Romance PCC is not limited to clitic clusters, contrary to the commonly held view, and to discuss the theoretical implications of this fact. I will, however, return at several points to Spanish and 3rd person animate objects, as these are particularly revealing regarding the true nature of the PCC.

## 2 Some core properties of the PCC

Substantial cross-linguistic work on the PCC has identified that it has a number of core characteristics. Firstly, note that Bonet's definition of the PCC alludes to the necessarily weak status of both arguments. This is because, as she showed, the PCC holds both in languages with rich agreement such as Basque, in (a subset of) contexts where the verb shows agreement with both internal arguments, and also in Romance ditransitives, in contexts where both internal arguments are clitics. It would appear, then, if we consider only ditransitives, that the PCC is sensitive to the weak status of datives (**Bonet1991**, **Anagnostopoulou2005**, **Bianchi2006**, **Stegovec2017**). As noted above for French, making the indirect object into a full pronoun mitigates the PCC. In Italian, the same is true, and making the direct object into a strong pronoun has the same effect. In (**??**), the dative is a full pronoun, whereas in (**??**) the accusative direct object is. In both cases, no PCC effect is observed (**Bianchi2006**):

() Italian (**Bianchi2006**)
a. Mi presenteranno a lui.
Me.ACC= introduce.3PL.FUT to him
b. Gli presenteranno me.
them.DAT= introduce.3PL.FUT me.ACC
'They will introduce me to him.'

This sensitivity to the weak status of *both* internal arguments is something which is also often reported in broader cross-linguistic studies (see **Stegovec2017**, but cf. **OrmazabalRomero2007**). In languages such as Basque, the PCC has been shown to hold only where both arguments agree with the verbal complex (**Laka1996**). In non-finite contexts, where there is no agreement, the PCC fails to hold and 1st/2nd person direct objects are freely available, for example (**Laka1996**, **Preminger2019**):

() Basque (**Preminger2019**: 7, citing **Laka1996**: 98)

[6] It would, of course, be very interesting to look into what determines micro-parametric variation of this kind but doing so is beyond the scope of the current paper.

Gaizki irudi-tzen ∅-zai-∅-t [zuk ni
wrong look-IMPF 3SG-be-SG.ABS-1SG.DAT you.ERG me.ABS
harakin-ari saltze-a]
butcher-ART.SG.DAT sell-NMLZ-ART.SG.ABS
'It seems wrong to me [for you to sell me to the butcher.]'

Unsurprisingly, then, some analyses of the PCC rely crucially on *both* internal arguments being weak pronouns/clitics/agreement morphemes (**Bianchi2006**, **Stegovec2017**)

Data from Spanish ditransitives challenge the claim that clitichood of both arguments is crucial to the Romance PCC, however. As **OrmazabalRomero2013** note, animate direct objects marked with personal *a* (so-called differential object marking – DOM) are ruled out in Spanish wherever an associated dative is clitic doubled. Consider the paradigm in (**??**):

() Spanish (**OrmazabalRomero2013**: 224)
a. Enviaron *(a) todos los enfermos a la doctora Aranzabal
sent.3PL DOM all the.pl sick.pl to the doctor Aranzabal
'They sent all the sick people to doctor Aranzabal'
b. Enviaron *(a) Mateo/ tu hijo a los doctores
sent.3PL DOM Mateo/ your son to the doctors
'They sent Peter/your son to the doctors'
c. Le enviaron (*a) todos los enfermos a la doctora Aranzabal
3S.ACC=sent.3PL DOM all the sick.PL to the doctor
Aranzabal
'They sent doctor Aranzabal all the sick people'
d. *Les enviaron (a) Mateo/ tu hijo a los doctores
3PL.DAT= sent.3PL DOM Mateo/ your son to the doctors
Intended: 'They sent the doctors Mateo.'

These examples show that where the indirect object is not doubled by a dative clitic, a DOM-marked direct object is fully grammatical. However, where the indirect object gets clitic doubled, either the direct object must occur without DOM, as in (**??**), or the example is simply ungrammatical. Animate direct objects occurring without DOM are 'deanimised', they claim, and this is highly semantically constrained.

The reason why animate full DP direct objects can trigger PCC effects in Spanish, according to Ormazabal and Romero is because they are marked with DOM, and this is a morphological reflex of Agree with v. More generally, it has been claimed that the PCC holds wherever the relevant kind of direct object overtly agrees with v and not otherwise (see **Preminger2019**). There is a parametric difference between Spanish and the other languages with respect to the syntactic

behaviour of animate full DPs: only in Spanish do they agree with v.

A possible interpretation of these data is that the PCC holds only where both internal arguments agree with the same functional head, with clitic doubling being the realisation of dative agreement in Spanish. In other words, these data show that the clitichood of the direct object is not essential to the Romance PCC, but they also seem to suggest that the clitichood of the *indirect* object *is* crucial. If clitic doubling is a form of agreement, then it is in precisely those contexts where the indirect object fails to 'agree' that the PCC also fails to hold (11a-b).

There is an alternative interpretation of these facts, however, which is more likely to be correct. **Demonte1995** and **Cuervo2003** use a number of tests to show that examples like (11a-b) without clitic doubling of the indirect object are instances of the prepositional dative construction. Examples (11c-d), on the other hand, are instances of the double object construction (DOC), as diagnosed by the presence of clitic doubling of the dative.[7] In fact, according to **Cuervo2003** clitic doubling *le* is not the reflex of agreement, but rather the spellout of the Appl head itself. In other words, the second 'a DP' in the two sets of examples has a different syntactic status: in (11a-b), it is a locative, base generated below the direct object (**??**), and, in (11b-c), it is a dative, introduced by an Applicative (Appl) head above the direct object (**??**) (see **Harley2002**, **HarleyMiyagawa2017**, building on the initial insights of **Oehrle1976**):[8]

() Structures for the double object construction (a) and the prepositional dative (b)

a. b.

On these (well-motivated) assumptions, there is al alternative reason that the PCC holds only in the presence of a dative clitic: because this element serves to indicate the presence of an Applicative head. The presence of the clitic in (11c-d) therefore indicates a radically different underlying structure, which is not morphologically disambiguated in Italian, French and Catalan. [9] In order to ascertain

[7] **Pineda2013** challenges the details of this claim with data suggesting that clitic doubling is not obligatory in the DOC. What is crucial for our purposes is that where there is clitic doubling, this implies the DOC and in the absence of clitic doubling indirect objects have the possibility of functioning as locative PPs.

[8] There is disagreement in the literature regarding the position of this low Applicative below or above V. I remain agnostic on this point here as either way an indirect object introduced by Appl will function as an intervener between v and the direct object.

[9] **OrmazabalRomero2013** offer a different competition-based account of this pattern whereby the two a-marked DPs compete for the same Case position in spec vP. Space precludes a full discussion, but, while attractive, it seems that their account cannot be extended to the causative data to be discussed below, where the PCC holds with full DPs even in the absence of clitic doubling.

whether the PCC is sensitive only to this structural difference or to the presence of the dative clitic itself, we need a context in which an indirect object marked with 'a/à' is not clitic doubled but cannot function as a locative. If the PCC holds in such contexts then we will know that the weak status of the indirect object is not crucial to the PCC. In the following section I show that the faire infinitive causative is such a context, and that in such cases the PCC can be observed to hold of all datives, not just clitics.

## 3 The PCC in causatives

A consideration of causatives shows that the PCC data for French, Italian and Catalan in ditransitive contexts are actually misleading. As **Bonet1991** and others have noted, the PCC (somewhat unsurprisingly) also holds with dative clitic causees in the *faire-infinitive* (**Postal1981**; **Quicoli1984**, **Rezac2008**):[10]

() French (**Rezac2008**: 66, citing **Postal1981**, **Quicoli1984**)
*Je vous lui laisserai voir
I you.ACC= her.DAT= let.3S.FUT see
Intended: 'I will let her see you.

As Bonet further notes, however, following **Postal1989**, full DP datives are also banned in the presence of first/second person direct objects in this context in French:

() French (**Postal1989**)
a. *Marcel vous a fait épouser au médecin.
Marcel you.ACC= has made marry to.the doctor
Intended: 'Marcel had the doctor marry you.'
b. *On nous a fait choisir à Jacques
one us.ACC =has made choose to Jacques
Intended: 'One/we had Jacques choose us.'
c. *On vous laissera connaître à Louise.
one you.ACC= let.3S.FUT know to Louise
'We will let Louise meet you.

These kinds of examples contrast minimally with examples involving a 3rd person direct object (even an animate one), which are fully grammatical, as Postal

[10] I use the term 'faire infinitive' here to denote a particular kind of Romance causative, following **Kayne1975**. Its crucial properties include: (i) dative on transitive causees, (ii) VS order for the caused event, (iii) causees which are agentive and (iv) causers which are not. Space precludes a discussion of minor differences between languages and I merely adopt the most uncontroversial account here, for expository reasons.

notes:

() French (**Postal1989**)

a. Marcel l' a fait épouser au médecin.

Marcel her.ACC = has made marry to.the doctor

'Marcel had the doctor marry her.'

b. On les a fait choisir à Jacques

one them.ACC= has made choose to Jacques

'We had Jacques choose them.'

Postal calls this the 'Fancy Constraint' and perhaps for this reason it is not usually discussed in connection with the PCC. It is, however, essentially a simpler version of the PCC, which we will call the 'Simpler PCC':

() Simpler PCC (first version)

- – * · In a combination of a direct object and dative in a causative construction, the direct object has to be third person. If the direct object is phonologically weak.

I call (**??**) 'simpler' because it imposes no requirement on the status of the indirect object. This is the version of the PCC which holds also in Catalan and Italian causatives (the Catalan example is from Bonet and the Italian example from my own informants).

() Catalan (**Bonet1991**)

*Em van fer escollir a la Teresa

me.ACC= go.3PL make choose to the Teresa

'They made Teresa choose me.'

() Italian

*Ti ho fatto picchiare a mio fratello

You.ACC have.1SG made beat to my brother

Intended: 'I made my brother beat you.'

The same effect can be observed in Spanish (both Peninsular and Rioplatense), though it is more difficult to observe because of the additional availability of an ECM construction with these verbs (see **Strozer1976**, **Torrego2010**). Because of these complications, I discuss Spanish in a separate section below.

As Postal also notes, the Fancy Constraint holds only where the causee is dative, and not where it is introduced by a preposition like *par/de* or where no causee is overtly expressed:

() French (**Postal1989**)

a. Marcel vous a fait épouser par le médecin.

Marcel you.ACC= has made marry by the doctor

'Marcel had the doctor marry you.'

b. On nous a fait choisir.

One us.ACC = has made choose

'One/we had us chosen.'

This is further potential evidence that we are dealing with the PCC. Though the structure of the *faire-par* construction remains contested, there is widespread recognition that the 'by phrase' in examples like (**??**) has adjunct-like properties and is not even projected in (**??**) (see **Guasti1996**, **FolliHarley2007**, **SheehanCyrino2016** for recent discussion). In any case, evidence from binding shows that a by-phrase causee does not c-command the accusative object in the *faire-par* construction, whereas a dative causee in the *faire-infinitive* does, as **Burzio1986** shows:

() Italian (**Burzio1986**)

Ho fatto riparare la propria$_i$ macchina a Gianni$_i$/*da Gianni$_i$

have.1S made repair the own car to Gianni/ by Gianni

'I made Gianni repair his own car.'

In fact, there is evidence that in the *faire-par* construction, c-command relations are reversed, with the accusative object binding into the by-phrase causee (**SheehanCyrino2016**):

() Italian (**SheehanCyrino2016**: 286)

a. Ho fatto leggere [ ogni libro]$_i$ dal suo$_i$ autore.

have.1SG made read each book by.the its author

'I had each book read by its author.'

b. *Ho fatto leggere il suo$_i$ libro da [ogni autore]$_i$

have.1SG made read the his book by each author

It seems reasonable to assume, then, that the lack of PCC effects in such contexts can be attributed to the fact that the by phrase does not intervene (in c-command terms) between v and the accusative argument.

The dative causee in the *faire-infinitive,* however, is argument-like, obligatory and merged in a position which c-commands the accusative internal argument. This is reflected by the anaphor binding pattern in (**??**). **FolliHarley2007** propose that dative causees are merged in a righthand specifier of a lower vP, a proposal which I adopt here for ease of exposition, though other options are possible. In Italian and French, at least, all accusative and dative clitics must cliticise onto the causative verb (**Kayne1975**, **Burzio1986**, **Guasti1993**). If cliticization is mediated by Agree, as **Preminger2019** claims, then a defective intervention configuration clearly arises as the FARE verb which I take to be an instance of a higher v, is clearly higher than the causee. The direct object clitic *lo* is therefore c-commanded by v and 'a Gianni,' and 'a Gianni' is c-commanded by the higher

FARE v, despite the unmarked word order:

() Basic structure of faire-infinitive

Postal proposes that, while the Fancy Constraint is widespread in French, it is not observed where the verbal complement of *faire* is headed by *connaître/reconnaître* or *voir*, providing the following data:

() French (**Postal1989**)

a. On vous fera connaître à Louise.

one you.ACC=make.3SG.FUT know to Louise

'We made Louise meet you.'

b. Jacques nous a fait voir à ses chefs

Jacques us.ACC = has made see to his bosses

'Jacques made his bosses see us.'

This is a potentially important distinction, which might shed important light on the nature of the PCC, if robust. Judgments on such are examples are varied, however and, although the effect might be less categorical than with other verbs, experimental results suggest that at least with *voir*, the PCC still holds in its simpler form.

Given the sensitivity of judgments of this kind, 14 examples of this kind were included as fillers (with a parallel context) in a large online survey, taken by 42 people. Questions were presented in randomized order and rated on an 8-point scale from 0-7. Mean scores are given across participants. The results show a clear contrast: examples with 3rd person direct objects were clearly grammatical, receiving an average of acceptability of just under 5, regardless of the features of the indirect object (**??**). Examples with two clitics received a slightly lower average mean (**??**), probably for processing reasons. All examples were presented along with a context (given in French) set in a busy classroom at the beginning of the school year:

() French non-PCC contexts of *faire-voir* 'show'

a. La professeure **te/ lui/ me** fait

the teacher you.DAT/her.DAT/me.DAT= makes

voir **Jean**, qui se sent nerveux.

see Jean, who SE feels nervous

'The teacher shows you/her/me Jean, who is feeling nervous.' **[mean rating: 4.98/4.86/4.62]**

b. La professeure **me le** fait voir.

the teacher me.DAT=him.ACC= makes see

'The teacher shows me him.' **[mean rating: 4.45]**

This is as expected as these are non-PCC contexts in French because the direct object in all cases is 3rd person.

There is a clear contrast when we consider examples with 1st/2nd person direct object and a 3rd person causee, the 'strong PCC' context. These were most unacceptable with dative clitics (**??**), but were also rated very low with full DP datives (an average of around 2 on the scale 8-point scale)(25b):

() French PCC contexts of *faire-voir* 'show'

a. *Le professeur **me/ te lui** fait voir.

the teacher me.ACC/ you.ACC= him.DAT= make see

Intended: 'The teacher shows me/you to him.'

**[mean ratings: 0.49/0.50]**

b. *?La professeure **me/ te** fait voir

the teacher me.ACC/ you.ACC= makes see

à Marie, qui se sent à l' aise.

to Marie, who SE feels at the ease

Intended: 'The teacher shows you to Marie,

who is feeling at ease.' **[mean ratings: 1.79/2.05]**

While further empirical investigation of the kinds of contrasts noted by Postal with individual verbs is clearly warranted, these initial experimental data suggest that the simpler PCC also holds with full dative DPs even where the embedded verb is *voir*.

The implication of the Catalan, Italian and French causative patterns is that the PCC in Romance languages is *not* limited to contexts where the indirect object is a clitic or an element triggering morphological agreement. The languages in question fail to have clitic doubling of datives and yet the PCC still holds even where the dative is a full DP. In this way, the data show that the PCC holds wherever (i) the direct object has the relevant (language-specific) person/animacy feature; (ii) v establishes a detectable Agree relation with this direct object and (iii) an indirect object of any kind intervenes in that Agree relation. This can lead either to ungrammaticality (strong PCC) or interaction between phi-features (weak PCC).

There is evidence that Postal's Fancy Constraint is just the PCC from the kinds of repairs which are available in this context. Recall that in ditransitive contexts, changing a dative clitic into a tonic pronoun marked with a/à served to repair the PCC. In causative contexts, PCC violations can only be repaired by making the *direct* object into a tonic pronoun:

() French

Je n' ai fait frapper que toi à Jean

I NEG have made hit but you to Jean

'I only made Jean hit YOU.'
() Italian
Ho fatto picchiare TE a mio fratello
have.1SG made beat YOU to my brother
'I made my brother beat YOU.'

But, unlike in ditransitive contexts, changing the status of the dative does not help here: tonic pronouns are also banned in the presence of 1st/2nd person direct object clitics, just as full dative DPs are:

() Italian[11]
*Ti ho fatto picchiare a lui/LUI
you have made beat to him/HIM
Intended: 'I made him/HIM beat you.'

In sum, we have seen that a 'simper PCC' applies to causatives such that a $1^{st}/2^{nd}$ person direct object clitic is ruled out in the presence of any kind of dative in French, Italian and Catalan. Why do the data pattern differently in causative vs. ditransitive contexts? In ditransitive contexts we saw that, with the exception of Spanish (which has clitic doubling), no PCC effect was observed with full DP datives. In section 5, I propose that this is because ditransitives are structurally ambiguous in French, Italian and Catalan, just as they are in Spanish. As we saw for Spanish ditransitives, then, the PCC holds only where a DP is dative and not where it is locative. Before presenting this proposal, however, I discuss the behaviour of Spanish in causative contexts, as these data present additional complications, but essentially serve to reinforce the point being made.

## 4 Spanish causatives

According to **Torrego2010**, clitic doubling of datives in the faire-infinitive is optional, at least for some Spanish speakers (see also **Pineda2013** regarding ditransitives). I take the VS order in (**??**) to indicate that this is an instance of the *faire infinitive* nonetheless:

() Spanish (**Torrego2010**)

[11] Another possible repair for some Italian speakers is to make the causee accusative, giving rise to an ECM-type complement without clitic climbing (**SchifanoSheehan2017**):

- %Lo/ *gli fece picchiarmi

3sg.acc/ 3sg.dat made beat.inf.=1sg.acc 'She made him beat me'ECM is not usually possible with Italian FARE (but see **Burzio1986**, **SchifanoSheehan2017** for discussion). This repair is not possible with full DP causees, for unclear reasons, making it only partially parallel to what is described for Spanish below.

La entrenadora (le) hizo repetir el ejercicio a la atleta.
the trainer (her.DAT=) made repeat the exercise to the athlete
'The trainer made the athlete repeat the exercise.'

In a PCC context then, a 1st/2nd person clitic is unsurprisingly ruled out in the presence of a clitic doubled dative. Note that this a spurious 'se' context in Spanish:

() Spanish
*Marcelo se te hizo saludar al invitado.
Marcelo him.DAT= you.ACC= made greet to.the guest
'Intended: Marcelo made the guest greet you.'

What is more interesting, from our perspective, is what happens where the dative clitic is absent. Examples such as (31a-b) should be potentially ambiguous with either the clitic of the full DP functioning as the causee. This is because, as in the other Romance languages, 1st and 2nd person clitics are not morphologically distinguished for accusative and dative case and because, due to DOM, all animate internal arguments in Spanish are introduced by 'a'. In both cases, however, the 1st/2nd person clitic can only be construed as a dative causee, however:

() Spanish
a. Marcelo te hizo ver al médico.
Marcelo you.*ACC/.DAT= made see to.the doctor
(i) 'Marcelo made you see the doctor.'
(ii) *'Marcelo made the doctor see you.'
b. Nos dejará ver a Luisa.
Us.*ACC/ DAT= let.FUT see to Luisa
(i) 'He made us see Luisa.'
(ii) *'He made Luisa see us.'

This is essentially the same effect described for Italian, French and Spanish: it is not possible to have a 1st/2nd person direct object in the presence of a dative argument. The only difference is that the presence of DOM means that the example is not ungrammatical, as the alternative reading in (i) is available. There is much more to be said about Spanish causatives, however.

In addition to the faire infinitive, many varieties of Spanish appear to permit ECM complements of *hacer* 'make'. For our purposes, the relevant properties of this type of complement is that: (i) transitive causees can be realised as accusative clitics; (ii) SV order is observed in the caused event; (iii) clitic climbing is not possible (**Strozer1976**, **Treviño1992**, 1993, **Torrego2010**, Tubino **Blanco2011**). Consider the following examples by way of illustration of these properties in Mexican Spanish:

() Mexican Spanish (**Treviño1992**: 311, 169)
a. Juan lo hizo leer estos libros.
Juan him.ACC= made read these books
'Juan made him read these books.'
b. Él hizo [ a Sadat exportarlas desde Francia].
He made to Sadat export.INF=them.ACC from France
c. *Él las hizo [ a Sadat exportar desde Francia].
he them.ACC= made to Sadat export.INF from France

Once we accept that in Spanish, unlike in French, Italian and (for the most part) Catalan, an ECM-type of complement is available under the FARE cognate verb, some apparently quirky properties of Spanish causatives can be attributed to the PCC.[12]

First, consider the curious fact that animate direct object clitics cannot climb onto the causative verb in Spanish causatives (**Rivas1977**, **Bordelois1978**, **Torrego2010**):

() Spanish (**Torrego2010**)
a. *El me lo hizo saludar.
he me.DAT = him.ACC = made greet
'He made me greet him.'
b. El me hizo saludarlo.
he me.DAT= made greet=him.ACC

In the current context, and bearing in mind the fact that Spanish displays PCC effects with animate direct objects, (**??**) looks like a PCC effect. If this is the case, then it is not the clitic cluster that is a problem, nor the dative 1st person clitic, but rather the animate direct object which attempts to Agree with *hacer* 'make' past the dative causee.[13] Example (**??**) is grammatical, however, because it involves a more biclausal ECM construction in which the accusative clitic does not form an Agree dependency with *hacer*, but rather with the lexical verb *saludar*. As the causee asymmetrically c-commands this lexical verb, it does not function as an intervener in (**??**).

As this ECM causative is 'biclausal' in the relevant sense, it also fails to be subject to more standard PCC effects. Speakers of Latin American varieties of Spanish and many Peninsular varieties readily accept examples such as the following:

[12] Actually a minority of Catalan speakers do seem to permit ECM under *fer*, but this is certainly not a majority pattern (see Pineda, **SchifanoSheehan2018**).

[13] As noted above a similar effect is attested with the 3rd person masculine singular animate clitic *le* in *leísta* dialects of Spanish. I am not sure to what extent animate direct object clitics in non-*leísta* dialects also trigger PCC effects with ditransitives.

() Spanish
a. (?) Marcelo hizo al invitado saludarte.
Marcelo made to.the guest greet=you.ACC
'Marcelo made the guest greet you.'
b. (?) Dejará a Luisa vernos.
let.FUT to Luisa see=us.ACC
'They will let Luisa see us.'

These examples clearly have an interpretation whereby the 1st/2nd person clitic is construed as a direct object, as indicated in the gloss, and so there is no PCC effect in evidence. Again, this is because the direct object clitic does not agree with the matrix little v. In this way, PCC effects in Spanish causatives are more nuanced than in the other Romance languages under discussion.

Now consider examples involving an animate direct object with DOM. As discussed above, these kinds of direct objects trigger PCC effects in Spanish ditransitives in the presence of clitic doubling, as discussed above. With causatives, the pattern is slightly different:

() Spanish
a. *Ana hizo saludar a su marido al invitado
Ana made greet to her husband to.the guest
b. *Ana le hizo saludar a su marido al invitado
Ana him.dat made greet to her husband to.the guest
c. Ana hizo al invitado saludar a su marido.
Ana made to.the guest greet to her husband
d. %Ana le hizo al invitado saludar a su marido.
Ana him.dat made to.the guest greet to her husband
'Ana made the guest greet her husband.'

If we take the basic position of the causee to indicate the difference between the faire-infinitive and ECM causatives, then these data show that PCC holds with DOM-marked full DP direct objects in the faire infinitive regardless of whether the indirect object is clitic doubled. In (35a-b), the VS order in the caused event indicates that this is an instance of the faire-infinitive, with clause union. For this reason, a DOM-marked direct object is not possible, by hypothesis, because the dative blocks agreement with the causative verb. Crucially, this is true not only in (**??**), where we see clitic doubling of the dative parallel to what we saw with ditransitives, but also in (**??**), where there is no dative clitic. This follows if, as noted above, clitic doubling is optional in the Spanish faire-infinitive (see also **Pineda2013**, who claims this is true also in Spanish ditransitives). Regardless of clitic doubling, then, the presence of a dative causee will trigger a PCC effect.

As described in (??) above, in ditransitive constructions, a non-doubled indirect object has the option of being interpreted as a locative, and it is this fact which makes the presence of a clitic crucial to the PCC in this context. The same is not true in the faire infinitive, where DPs introduced by a/à always have the status of datives, base generated between the direct object and the causative v.

Now consider (35c-d), which have SV order in the caused event and so can be taken to be instances of ECM causatives. All speakers accept (??), and this is as expected if this is a biclausal ECM context. Additionally, however, speakers from Argentina and certain parts of Spain also allow (??). In fact, these speakers also allow, even prefer, clitic doubling of the ECM causee with clitic direct objects, even in 'strong PCC' contexts, with $1^{st}/2^{nd}$ person direct objects:

() Spanish

a. %Marcelo le hizo al invitado saludarte. Marcelo him.DAT= made to.the guest greet=you.ACC

'Marcelo made the guest greet you.'

b. %Clara le hizo al invitado saludarlo.
Clara him.DAT= made to.the guest greet=him.ACC

'Clara made the guest greet him.'

I leave open the status of the matrix dative clitic is in such examples. The fact that such examples are not subject to the PCC suggests that they cannot be instances of the faire-infinitive with a fronted causee. **OrmazabalRomero2013** analyse them as instances of raising to object. It still remains unclear to me, however, how a dative clitic doubles an accusative causee (see also **OrdóñezSaab2018** for one proposal). What is clear from these data, however, despite the open questions, is that Spanish also displays PCC effects with both clitic and full DP datives, in parallel with the other Romance languages under discussion, once we control for the availability of ECM (or raising to object) complements.

## 5 Theoretical implications

Early approaches to the PCC characterised it as a morphological constraint (see **Bonet1991**, for example). More recently, however, significant challenges have been raised for this position (see **Preminger2019** for an overview), and the facts discussed here can be seen as further evidence that the PCC is not about morphology. In fact, the main aim of this chapter has been to show that the relevance of the PCC is *not* limited to clitic clusters in Romance. As we have seen, when we consider Spanish DOM-marked direct objects and *faire-infinitive* causatives, the PCC can be shown not to care about the weak/strong status of the indirect object.

All that matters is the syntactic structure and the agreeing status of the direct object.

While there have been many syntactic analyses of the PCC, most recent approaches reduce to the idea that it arises where "two arguments are in the domain of a single probing head" (**Nevins2007**). A line of research stemming from Anagnostopoulou (2003, 2005) formalizes this in terms of defective intervention, whereby a probe attempts to agree with a goal with person features over a dative intervener (see **Anagnostopoulou2003**, 2005, **Nevins2007**, **Rezac2008**, **Preminger2019**). A distinct, but related approach, by **AdgerHarbour2007** attributes the PCC to the fact that a single head with one set of person features cannot both agree with an animate [+participant] Theme and introduce an animate [+participant] argument in its specifier as these functions both require a distinct person feature. Note that, in their system, 3rd person Themes are always [-participant], whereas animate recipients/benefactives are [+participant] even if they are 3rd person. Both kinds of approaches rely crucially on the fact that the direct object must Agree with a functional head. In the defective intervention approach, this is a head higher than the dative, such as v. In Adger and Harbour's alterative account, it is Appl, the same head which introduces the applied argument.

**Bianchi2006** and **Stegovec2017**, on the other hand, provide analyses which aim to capture the fact that (in ditransitives) the PCC only holds if both internal arguments are weak elements. In **Stegovec2017**'s (**Stegovec2017**) approach, for example, weak arguments enter the derivation without a person feature and must receive one via agreement with a phase head. As the indirect object generally intervenes between the direct object and the phase head v, this leads to an intervention problem wherever both are weak 1st/2nd person pronouns. The Spanish data in ditransitives are already problematic for these latter kinds of accounts, as are the Romanian facts presented by Cornilescu (this volume, section 6), and the causative patterns show quite clearly that, in Romance at least, this kind of approach makes the wrong predictions.

Mainstream accounts can, however, easily accommodate the Simpler PCC defended here. In the defective intervention approach, based on Anagnostopoulou (2003, 2005), **BéjarRezac2003** and **Rezac2008**, the PCC arises because a dative argument intervenes between a probe (v) and its [+person] goal, the accusative direct object:

() $v_{[phi:\ ]} > DP_{DAT} > DP_{[+person]}$

On this kind of approach, it is actually mysterious why the PCC would only apply to dative clitics. For the defective intervention account to extend to causatives, it has to be the case that the internal argument of the embedded predicate agrees

with *fare*, with the causee acting as an intervener:

() fare$_{[\text{phi: }]}$ > DP$_{\text{DAT}}$ > DP$_{[+\text{person}]}$

Given that internal arguments obligatorily cliticise onto *faire*/*fare* in both French and Italian, this kind of analysis seems promising.

On Adger and **Harbour2007**'s (**Harbour2007**) approach, as noted above, the basic prediction is also that there would be no sensitivity to the clitic/non-clitic distinction, just as there is no sensitivity to the case-marking of the higher argument. For them, the PCC arises where a single head must both agree with the internal [+participant] direct object and introduce an animate [+participant] specifier:

() *[$_{\text{ApplP}}$ DP$_{[+\text{participant}]}$ Appl ... DP$_{[+\text{participant}]}$]

This leads to ungrammaticality because a given head can only enter into an Agree relation with the same feature once, and the spec-head relation is conceived of as Agree-based. Whichever head introduces the causee in the faire infinitive: *Appl* (**Ippolito2000**, **Ordóñez2008**, **Torrego2010**, **PitteroffCampanini2014**) or *v* (**FolliHarley2007**), this head will be prevented from agreeing with a [+participant] Theme.[14]

So why, then, does it appear to be the case that the PCC holds only where the dative is a clitic in ditransitive contexts in Romance? The answer, I propose, comes from the two potential structures for ditransitives and the fundamental ambiguity of *a/à* as a dative/locative marker, discussed above in relation to Spanish. Following Holmberg, Sheehan and van der **Wal2017** and **Fournier2010**, we propose that (like Spanish) Catalan, Italian and French have two distinct structures for ditransitives (see **Demonte1995**, **Cuervo2003**, **Harley2002**, **HarleyMiyagawa2017**). These are as illustrated above by (**??**), repeated here as (**??**):

() Structures for the double object construction (a) and the prepositional dative (b)

a. b.

In the extensive literature on the topic, it has been argued that many unrelated languages permit both kinds of structures, regardless of surface case morphology (see **Marantz1993**, **Pesetsky1995**, **Cuervo2003**, **Anagnostopoulou2003**, **Pylkkänen2002**, 2008, **MiyagawaTsujioka2004**, **Bruening2010**, **HarleyMiyagawa2017**). The issue remains contentious, however, as several of the other papers in this

[14] Note that it is more controversial to claim that the lowest direct object is Case-licensed by *fare/faire*. **BellettiRizzi2012** argue that it is, against Folli and **Harley2007**'s (**Harley2007**) position that it is licensed low. The controversy relates partly to the status of passivisation of the faire-infinitive in Italian and French. As **Preminger2019** shows, it is, in any case, possible, and probably necessary, to restate this kind of account without the need for abstract Case as long as cliticisation involves Agree.

volume shows, see, especially, Calindro (this volume) and Cépeda & Cyrino (this volume) on Brazilian Portuguese, Cornilescu (this volume) on Romanian, and Antonyuk (this volume) on Russian. If the Romance languages under discussion have two structures for distransitives, as outlined above, then PCC effects are predicted to hold only in structures like (??) and not in those like (??) (see **Rezac2008** on parallel contrasts in Basque). It is only in configurations like (??) that the indirect object will function as an intervener. Where *a/à* is the head of a locative PP which is base generated below the accusative direct object, no intervention effect will arise.

In other words, it is this structural ambiguity in ditransitives which gives rise the false impression that the PCC only holds with dative clitics. Full DPs introduced by *a/à* which occur with ditransitive verbs can be either dative or locative, having either the structure in (??) or that in (??), whereas dative clitics are unambiguously dative, and so must derive from the structure in (??)[15] . Consider, by way of illustration, the French examples in (??)-(3) above, repeated here as (41a-b):

() French (**Kayne1975**: 173, 174)

a. *Paul me lui présentera.

Paul me.ACC= him.DAT= present.3SG.FUT

Intended: 'Paul will introduce me to him.'

b. Paul me présentera à lui.

Paul me.ACC= present.3S.FUT to him

'Paul will introduce me to him.'

Example (??) is ungrammatical because it must have the structure in (??), whereby the dative intervenes between v and the direct object (in its base position). Example (??), however, is grammatical because it can be construed with the structure in (??). I assume that, with the structure in (??), it is also ungrammatical, in parallel with (??), and so only (??) is possible (see also **Anagnostopoulou2003**, **Rezac2008** for similar proposals).

Further support for this view comes from the fact that in French and Catalan the indirect object can be (exceptionally) realised as a locative clitic as a PCC repair strategy (see **Postal1990**, **Rezac2008**, on French; **Bonet1991**, 2007 on Catalan):

() French

% Paul m' y présentera.

Paul me.ACC= there= present.3SG.FUT

[15]For concreteness, I assume that clitics originate in argument positions, but there are other possibilities.

'Paul will introduce me to him.'

What is usual about such examples is that the locative clitics cannot unusually index animate arguments. Presumably, this is exceptionally permitted in such contexts to avoid ungrammaticality.

More generally, this proposal sheds new light on one of the main kinds of PCC repairs: they simply involve the prepositional dative construction not a PF repair. This explains immediately why there is no quantifier stranding in these instances (**Kayne1975**, **Rezac2008**):

() French (**Rezac2008**)

a. Elle la leur a **tous** présentée.

she her.ACC= them.DAT has all introduced

'She has introduced her to all of them.'

b. Elle m' a (*tous) présentée à eux.

she me.ACC= has all introduced to them

'She has introduced me to (*all of) them.'

Example (**??**) shows that cliticization permits quantifier float. The fact that this is not possible in (**??**) follows if this repair involves a different base generated structure, rather than a PF repair.

In causative contexts, *a/à* always indicates dative so these repairs are not possible, as noted above. This is because causees cannot be introduced as locatives headed by *a/à*, presumably for semantic reasons. Note that they can be introduced as adjunct PPs, however (in the *faire-par* construction) and this too is not subject to the PCC for parallel reasons: because the PP adjunct fails to intervene between the probe and the direct object.

## 6 Conclusions

In this short article, I have argued that the PCC is simpler than previously thought. It blocks a 1st/2nd person direct object in the presence of any kind of intervening dative argument. The reason we observe PCC only with clitics in ditransitives is that *a/à* is fundamentally ambiguous between being a locative and a dative marker and so only clitics are unambiguously dative.[16] We have seen, furthermore, his is actually what is predicted by many, though not all, existing analyses of the PCC: any kind of dative will act as a defective intervener. In

[16] A reviewer asks why the PCC does not hold optionally with full DPs even in ditransitive contexts. My claim is that it does but that this is not detectable as the locative repair is, in such cases, homophonous with the PCC-violating structure. In Spanish, where they are not homophonous, differences arise, as shown in (**??**) above.

order for this to be the case, we must accept that there are two distinct structures for Romance ditransitives. While this has long been proposed for Spanish (**Demonte1995**, **Cuervo2003**), it remains more controversial for Italian, French and Catalan. Nonetheless, recent research has proposed, on a completely independent basis, that there are also two underlying structures for ditransitives in these languages.

**Acknowledgements**

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# Part II

# Possessor datives, experiencer datives and related structures

# Chapter 7

# Aspectual datives (and instrumentals)

Ludovico Franco

Paolo Lorusso

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***Abstract***. *Dative adpositions instantiate part-whole/inclusion (⊆) relations that holds between the goal and the direct object in the thematic grids of ditransitives. We assume that the same primitive part-whole relation is found: i) when the dative adposition is used in locative contexts; ii) with genitive adpositions, as shown by the widespread genitive/dative syncretism across natural languages. Instrumental inflections/adpositions are also the instantiation of the same primitive part-whole relation, but they denote the reverse with respect to genitives/datives (⊇). We describe progressive aspectual constructions involving adpositions, crosslinguistically. We propose that the dative adpositions found in progressive periphrases are the lexicalization of the same basic 'part-whole/inclusion' content: the part-whole relation does not hold between argumental/thematic material but between two events, one event being the time of reference which is 'part of' the time-frame of a second embedded event/set of events. The variation in the adpositions found with the Italian aspectual periphrases is accounted for in the terms of the 'direction' (⊆) vs. (⊇) of the inclusion primitive predicate that implies different interpretations: progressive vs. prospective aspect, respectively.*

***Keywords***: *dative, instrumental, aspect, progressive, prospective.*

## 1 Introduction: background and aims

In recent work, **ManziniSavoia2011**, **ManziniFranco2016**, Franco & Manzini

(2017a,b) propose that dative morphemes are part-whole/inclusion predicates (cf. Belvin & den **Dikken1997**), notated (⊆), whose basic context of occurrence can be illustrated for English *to* in (**??**).

(1)

a. I gave the books **to** Peter
b. [$_{VP}$ gave [$_{PredP}$ the books [[$_{\subseteq}$ **to**] Peter ]]]]

Following **Kayne1984**, **Pesetsky1995**, **BeckJohnson2004**, **Harley2002**, among others, we can assume that in (**??**) a possession/part-whole/inclusion relation holds between the dative (*Peter*) and the theme of the ditransitive verb (*the books*).

**ManziniSavoia2011**, Franco & Manzini (2016, 2017a) ascribe the same (⊆) content to genitives. Consider English in (**??**). The *of* preposition (or the *'s* genitive ending) introduces a possession relation between the argument it selects, namely *the woman* (the possessor), and the head of the DP, namely (*the*) *children* (the possessum). The content of the *'s* case or the *of* preposition is the same part/whole elementary predicate ⊆ assumed for datives. Thus, in (**??**) (⊆) takes as its internal argument the sister DP (the possessor) and as its external argument the head N/D (the possessum) – saying that 'the children' is in the domain of inclusion of 'the woman'.

(2)

a. The woman'**s** children/the children **of** the woman
b. [$_{DP}$ the children [$_{PP_{\subseteq}}$ **of** the woman]]

**ManziniSavoia2011** argue that the widespread genitive/dative syncretism (e.g. in Romanian as in (**??**)) precisely corresponds to such a common lexicalization. This approach is not incompatible with languages like English with two separate lexicalizations for 'to' (dative) and 'of' (genitive). Simply genitive 'of' is specialized for DP-embedding of (⊆) and dative 'to' for sentential embedding of (⊆).[1]

[1]The part-whole (⊆) proposal for genitives and datives has been further articulated in **ManziniFranco2016**, **FrancoManzini2017a** in order to account for the fact that formally identical genitive/dative DPs display different interpretive behaviours – as well as for the fact that cross-linguistically, syntactico-semantic differences may result in different lexicalization pattern. For instance, while with Goal datives the (⊆) relator establishes a relation between two arguments (namely the goal and the theme), with experience datives the (⊆) relator introduces relation between an argument (experiencer) and an event (the VP) (cf. **ManziniFranco2016**:230-231). This is in line with the Applicative literature (cf. (**Pylkkänen2008**), which assumes that the same Appl head (externalized by dative/oblique) can be attached to different points in the syntactic tree (High Appl *vs.* Low Appl heads)

(3)

a. (I)-l am dat băieț-i-l-**or**/ fet-e-l-**or** him.it I.have given boy-mpl-def-obl/ girl-fpl-def-obl
'I gave it to the boys/ girls'
b. pahar-ul băieț -i-l-**or** / fet-e-l-**or**
glass-msg.def boy-mpl-def-obl/ girl-fpl-def-obl
'the glass of the boys/ girls'

**FrancoManzini2017b** extend the part-whole proposal to the other oblique items most likely to occur as a case inflection in natural languages (**Caha2009**), namely the instrumental; in English the core lexicalization of the instrumental is by the adposition *with*. We employ here the cover term 'instrumental' for all the semantic values that can be rendered with *with*-like morpheme (cf. **StolzEtAl2006**). Our starting point is the observation made by **Levinson2011** that possession relations may be realized by *with*, as illustrated in (**??**). The relation in (**??**) is reversed with respect to that in (**??**)-(2), since the preposition *with* embeds the *possessum*, while the *possessor* is the head of the DP.

(4)

The woman with the children

**FrancoManzini2017b** show that instrumental inflections/adpositions precisely denote the reverse relation with respect to genitives/datives, by which the possessum, rather than the possessor is in the oblique case. For instrumentals they therefore adopt the (⊇) content and label, as illustrated in (**??**). What (**??**) basically says is that the complement of with ('the children') is the possessum (a part) of the possessor (the whole) 'the woman'.

(5)

$[_{DP}$ the woman $[_{PP(\supseteq)}$ with the children]]

They further claim that *with*-type morphemes provide very elementary means of attaching (i.e. including) extra participants (themes, initiators, etc.) (in)to events (VP or vP predicates, cf. fn. 1) – with specialized interpretations derived by pragmatic enrichment (contextual, encyclopaedic) at the C-I interface, and extend the proposal to account for the observation that the instrumentals can be employed

cross-linguistically in triadic verb constructions alternating with datives,[2] as illustrated in (**??**)-(7) respectively with English and Persian examples.

(6)

a. He presented his pictures **to** the museum [dative]
b. He presented the museum **with** his pictures [instrumental]

(7)

a. Pesar sang-ro **be** sag zad [dative]
boy stone-DOM to dog hit.pst.3sg
'The boy hit the dog with the stone'
b. Pesar sag-ro **ba** sang zad [instrumental]
boy dog-DOM with stone hit.pst.3sg
'The boy hit the dog with the stone'

In this paper, we focus on the adpositional morphemes surfacing in aspectual periphrases in Italian and beyond. We precisely concentrate on imperfective/progressive periphrases. Our main claim is that the 'dative' morpheme in (**??**), which happens to be involved in the encoding of progressive aspect in many Romance varieties (**ManziniEtAl2017**) and beyond (e.g. **Jóhannsdóttir2012** for Icelandic) lexicalizes the same basic 'part-whole/inclusion' content illustrated above. Notice that also dative morphemes introducing modal periphrases have been analysed as inclusion/part-whole relational devices in the recent literature (cf. **BjorkmanCowper2016**, Tsedryk, this volume).

Following **BerwickChomsky2011**, we take the lexicon to be the locus of externalization, pairing syntactico-semantic and phonological content: we assume a steady (⊆) signature for all the occurrences of the 'dative' *a* (to, at) adposition of Italian. In (**??**), basically, we might say that a (⊆) part/whole relation hold of event pairs, saying that one event is 'part of' (or *a stage of,* cf. **Landman1992**) of a second event – or rather a set of events/an event type. Specifically, we may say that the event which is introduced within the matrix (finite) verb phrase is anchored to the time of reference (or viewpoint, cf. **Comrie1976**, or the utterance

[2] **FrancoManzini2017b** also account for dative/instrumental syncretism (eventually including DOM objects), arguing that the inclusion predicate (⊆) corresponding to 'to' or dative case and its reverse (⊇), corresponding to 'with' or instrumental case, may reduce to an even more primitive content capable of conveying inclusion in either direction (cf. §**??**).

time, cf. Higginbotham, 2009) and is 'part of' the embedded event introduced by the (⊆) relator.

(8)

a. Gianni sta/è **a** studiare
'Gianni is studying'
b. [$_{IP/TP}$ Gianni è [(⊆) **a** [$_{VP}$ studiare ]]]

This study is not aimed at providing any sort of formal semantic characterization of progressive aspect: rather, it is limited to a morphosyntactic account of the occurrences of (⊆) relators in aspectual periphrases. However, we must note that the idea of a part-whole rendering for progressives is far from being new. **Comrie1976** argues that: 'perfectivity indicates the view of a situation as a single whole (…) while the imperfective pays essential attention to the internal structure of the situation'. Comrie's approach pays attention to the internal temporal structure of the event, proposing that, in a sense, the perfective–imperfective contrast can be accounted for in terms of a whole vs. structured time-frame of the event which in our terms, can be described as an whole *vs.* part–whole contrast. **Bach1986** further argues that a progressive operator in the verbal domain is the counterpart of the partitive operator in the nominal domain, both instantiating a part-whole/sub-set relation. **Filip1999** is even more radical in claiming that: 'the semantic core of many, possibly all, aspectual systems can be characterized in terms of the basic mereological notions 'part' and 'whole'' (**Filip1999**). Given this, we think that translating a part-whole relational content for (progressive) aspect into morphosyntax is a welcome result.

This quite trivial claim has at least two non-trivial consequences. First, the idea of a part-whole syntax for progressives stands against the widespread idea (both within the typological and theoretical literature) that progressives are cross-linguistically realized in the form of a locative predication (**MateuAmadas1999**, Bybee *et al.* 1994, Demirdache and Uribe-**Etxebarria1997**). Second, the idea of an aspectual (⊆) relator seems *prima facie* to be inadequate to consistently represent progressives in Romance. There are, in fact, Romance languages where no locative/dative preposition is found and the most common morphosyntactic 'progressive' device is the 'BE *plus* gerund' periphrasis, as illustrated in (**??**) for Italian and Spanish.

(9)

a. Gianni sta studiando *Italian* b. Juan esta estudiando *Spanish*

We aim to show that the encoding of progressive aspectual relations by means of adpositional devices does not rely on a primitive locative content of the semantics they express (and of their mapping into syntax). Rather, we will show that adposition-based aspectual periphrases share a primitive relation of 'inclusion' (the same relation which is at work with dative/genitives) of an event within a set of events or between the reference time and the time-frame of an event/set of events. We will substantiate this claim with a set of cross-linguistic examples in which the expression of progressive meaning relies on *with*-like adpositions and HAVE predicates, which -*contra* previous assumptions (**Freeze1992**, Den **Dikken1998**)- seem to have a *bona fide* non-locative value, as demonstrated in **Levinson2011**. We will then provide a morphosyntactic analysis of Italian progressive periphrases, assuming that gerunds encode a covert (⊆) operator which is compatible with a prepositional value (**Gallego2010**, **Franco2015**). We will further show that the (⊆)/(⊇) divide in the oblique case systems of natural languages put forward by **FrancoManzini2017b** for the encoding of argumental/thematic material is relevant also within the aspectual domain.

## • 2 Non-locative progressives periphrases (with datives and beyond)

Cross-linguistically, the same material can be recruited from the lexicon to encode argumental and aspectual relation among syntactic constituents. A case in point is the dative adposition *a* in a full set of Romance varieties, which, for instance, happens to have a role also in the encoding of progressives, as illustrated in (**??**), with Italian examples.

(10)

a. Gianni ha dato un libro **a** Maria *dative*
'Gianni gave a book to Maria'
b. Gianni è **a** lavorare *progressive*
'Gianni is working'

In a number of typological and theoretical studies progressive aspect has been linked to locative constructions (**BybeeEtAl1994**, **MateuAmadas1999**, Demirdache and Uribe-**Etxebarria1997**). This is *prima facie* a reasonable characterization also for Italian, given that, for instance, the goal of motion is commonly expressed by the same *a* preposition, as in (**??**).

(11)

Gianni va **a** casa
'Gianni goes (to) home'

**BybeeEtAl1994** write: "The majority of progressive forms in our database derive from expressions involving locative elements (…). The locative notion may be expressed either in the verbal auxiliary employed or in the use of postpositions or prepositions indicating location —'at', 'in', or 'on'. The verbal auxiliary may derive from a specific postural verb (…), or it may express the notion of being in a location without reference to a specific posture but meaning only 'be at', 'stay', or, more specifically, 'live' or 'reside'".

Actually, this characterization for progressives appears to be too restrictive. A more general part-whole characterization devoid of locative endowments (at least for adpositions) seems more appropriate, once we consider a wider set of cross-linguistic data. Indeed, *with*-like morphemes, which happen to encode possession but not location (cf. **Levinson2011**) and HAVE predicates[3] (which are not listed among the 'locative' auxiliaries in Bybee et al's sample), are recruited to encode progressives in various natural languages. In our term, such evidence shows that not only dative-like (⊆) morphemes, as illustrated in (**??**), but also instrumental-like (⊇) relators can be employed to convey a progressive interpretation. We discuss this issue in some details in section 3, specifically devoted to Romance aspectual periphrases.

Here, we concentrate on cross-linguistic data, relying on the exhaustive typological survey provided in **Cinque2017** (who lists up to twenty different strategies unrelated to locatives employed to encode progressives among natural languages), illustrating a set of aspectual periphrases not involving locative constructions.

For instance, there are many languages which employ a 'be with' strategy to encode progressive meaning. The *with* adposition introduces an infinitive form of the lexical verb. This progressive periphrasis is widespread among African languages (cf. **Cinque2017**:556). Such periphrasis is actually similar to the Romance one illustrated in (**??**) and (**??**), except for the relator selected from the lexicon (*to* vs. *with*).

[3] **Levinson2011**, arguing against locative approaches to possession, convincingly shows that a non-locative approach to HAVE is superior to locative accounts in explaining possession in Germanic languages and accounting for the variation in preposition incorporation (cf. **Kayne1993**, **Harley2002**) within Germanic (and beyond).

(12)

wó **t**ɛ na jo dandù.
3pl with inf eat honey
'They are eating honey.' *Baka* (Kilian-**Hatz1992**:29)

(13)

tu li **l**' oku-lya
we be with inf-eat
'We are eating' *Umbundu* (**HeineKuteva2002**:83)
(**??**) ní.dí. **na**.kuzà.ta
I.am with.work.inf
'I am working' *Lunda* (Bantu; **Kawasha2003**:194)

In a number of Iranian languages, progressive aspect is encoded through a HAVE + lexical verb periphrasis (**Cinque2017**), as illustrated in (**??**) for Persian. Note that both verbs are inflected and agree with the external argument. This pattern is reminiscent of the one illustrated in **ManziniEtAl2017** for Southern Italian varieties, in which the 'dative' *a* introduces finite complements, as illustrated in (**??**) for Conversano (Apulia). Actually, the adpositional relator does not surface in all Southern Italian varieties, as shown in (**??**) for Monteparano (Apulia). We may posit a silent adpositional relator (**Kayne2003**) both for Persian and the Monteparano dialect. As we have seen, HAVE verbs are characterized with a general 'inclusion' content (cf. fn. 3), that **ManziniFranco2016** assume to be analogous to *with*-like (⊇) morphemes.

(14)

Ali dar**e** mikhor**e**/ (Man) dar**am** mikhor**am** *Persian*
Ali has eat.3sg/(I) have.1sg eat.1sg
'Ali is eating'/I'm eating'

(15)

u stek **a** ffattsə /u ste **a** ffeʃə *Conversano*
it.cl stay.1sg to do.1sg / it.cl stay.3sg to do.3sg
'I am doing it'/'He/she is doing it'

(16)

lu ʃtɔ ccamu *Monteparano*
him.cl stay.1sg call.1sg
'I am calling him'

Quite interestingly, a pattern involving a HAVE/HOLD verb periphrasis for progressive is present also in Italo-Romance, as illustrated in (**??**)-(19) for Abruzzi-Molise dialects (**Cinque2017**). Again the (dative) relator may be overt (**??**) or not (**??**) (this time with infinitive lexical verbs, showing that the finiteness of the embedded lexical verb is actually independent from the overt presence of the relator).

(17)

Təném **a** mmagná (**Rohlfs1969**)
we.hold to eat.inf
'We are eating'

(18)

té ppjjove (**Ledgeway2016**)
it.holds rain.inf
'It is raining'

Thus, in spite of the fact that many languages adopt 'locative metaphors' to encode progressive, the data introduced above suggest that a more general (⊆)/(⊇) inclusion/part-whole content instantiate the relation between events and event properties that a part of the formal semantics literature, briefly reviewed in section 1, identifies with progressive aspect. What holds of examples like (**??**) and (**??**) including an overt relator, also holds of 'bare' finite embeddings - for instance with the Apulian variety of Monteparano in (**??**) or Persian (**??**) - or bare infinitive embedding as in (**??**), if the content of the progressive (i.e. part/whole) is given in virtue of the selection of an abstract preposition *à la* Kayne.

Following **ManziniSavoia2011**, Franco & Manzini (2017a,b), we see no reason why spatial meanings should be primitive with respect to meanings connected to relations between events or between events and their participants, suggesting that it is in fact spatial relations that may be conceived as specialization of all-purpose relations ('contains'/'is part of') when a location is involved.

The *with* adposition introduced in (??)-(14) has the interesting property of expressing no spatial relation at all (**Levinson2011**) – as does the genitive preposition *of* considered in §??, assumed to express the same (⊆) content of datives.[4]

The Italian preposition *da*, which does also have locative meaning, makes an interesting case study, illustrated in some details in Franco & Manzini (2017a,b). In Romance, the lexicalization of (spatial) adpositions seems to vary according to whether their object, i.e. the Ground in a Figure-Ground configuration (**Svenonius2006**), is a high-ranked or low-ranked referent (**Fábregas2015** on Spanish). In Italian, with inanimate referents, state and motion-to are lexicalized by *a* 'at, to' or *in*, as in (??), and motion from is lexicalized by *da*, as in (??). However in (??) it can be seen that state, motion-to and motion-from with human referents are all lexicalized by the *da* preposition.

(19)

a. Sono/vado **in/a** casa.
'I am at home/in the house'/'I go home/into the house.'
b. Vengo **da** casa.
'I come from home.'
c. Sono/vado/esco **dal** parrucchiere.
'I am at/I go to/I come from the hairdresser.'

Crucially, directionality and other specifications of location that are spatially salient are missing from *da*'s core denotation – or its compatibility with the different locative predicates in (??) could not be explained. Given the ability for *da* to play any locative role with human referents, the natural conclusion is that locative meaning derives neither from the intrinsic content of *da*, not of course from that of its complement (a human referent) – but from the locative nature of the stative/directional predicate. A reasonable characterization for the oblique

[4]The locative semantics found with progressives is an instantiation of a more general part-whole relation, which is also called also by Belvin & den **Dikken1997** *zonal inclusion*, meaning that all locative relations can be reduced to a primitive part-whole relation with the *figure/locatum* as the *part* and the *ground/location* as the *whole*. The non primitive status of locative can be accounted for by the fact that while locative adpositions alternate with non-locative one, the non-locative adpositions such as *of* are not found in alternation with locative adpositions. For example in English the instrumental adposition *with* alternate with locative prepositions (*on /against*)(i-iii) or with the dative/locative *to* (iv). (i) a. John sprayed the paint on the wall. b. John sprayed the wall with paint.(ii) a. John embroidered peonies on the jacket. b. John embroidered the jacket with peonies.(iii) a. John hit the fence with a stick. b. John hit a stick against the fence.(iv) a. He presented the museum with his pictures.b. He presented his pictures to the museum.

morpheme *da* in Italian is again that of a general relator involving a part-whole predicate, devoid of any intrinsic locative content.

## • 3 Datives (and instrumentals) in Italian progressive/prospective periphrases

At this point, we want to show that also intra-linguistically we may have variation concerning the relator(s) recruited from the lexicon to encode aspectual (progressive) periphrases. We will take Italian as a case study. We have seen in section 1 that, in Italian, a progressive interpretation can be rendered either with a 'be/stay + dative preposition + infinitive' schema (**??**) or a 'stay + gerund' (**??**) schema (cf. **Bertinetto2000**).

Interestingly, the gerund periphrasis in Italian is able to encode not only a progressive meaning, but also a prospective one. Indeed, progressive interpretation is somewhat conditioned by the Aktionsart of the verbal item. Following **Vendler1967**'s (**Vendler1967**) canonical typology, we may say that (at least usually) progressive interpretation is available with *activities* (e.g. 'John is working') and *accomplishments* (e.g. 'John is drawing a square'), while it is not readily available with *states* (e.g. #John is knowing the answer). With *achievements* things are less clear-cut. Indeed, as noted in **Cinque2017** with achievements that have preparatory stages (e.g. 'the plane is landing', 'John is leaving', etc.): "Progressive aspect appears to apply to the stages that precede the final achievement thus resulting in a Prospective aspect interpretation". In Italian, the prospective aspect interpretation triggered by achievement verbs can be rendered with the same (progressive) 'stay+gerund' periphrasis, as illustrated in (**??**).

(20)

a. L'aereo sta atterando
'The plane is landing'
b. Il bambino sta nascendo
'The baby is being born'
*prospective aspect [achievements]*

Nevertheless, the 'be/stay + (dative) preposition + infinitive' verb periphrasis, readily available for 'progressive' activities and accomplishments, is not able to encode prospective aspect. Indeed, Italian resorts to a different relator, the adposition *per*, to render prospectives, as illustrated in (**??**), matching the examples in (**??**).

(21)

a. l'aereo sta **per**/*ad atterrare
'The plane is landing'
b. Il bambino sta **per**/*a nascere
'The baby is about to be born'

**FrancoManzini2017b** ascribe to the Italian adposition *per* the same 'instrumental' (⊇) content expressed by the *con* (with) morpheme, based (among others) on the evidence that *con* and *per* are both able to lexicalize causers, as in (**??**). Following their insight, it is possible to assume that the (⊇) relation between the *con/per* phrase and the VP event in (**??**) yields inclusion in an event/concomitance with it. In a sense, (**??**) is paraphrasable as something like: "The government raised taxes and the crisis was part of its acting to raise them." (cf. **FrancoManzini2017b**: 8-9).

(22)

Il pericolo di conflitto aumentò **con**/**per** il golpe
'The danger of a confrontation increased with/for the coup'

Actually, the same general relation (causation, in this case), may have more than one lexicalization in a given language. Though Italian *con* can express cause, there is no doubt that causation is also expressed, by a different preposition, namely *per*. The closest rendering of *per* in English is *for*, which expresses both purpose ('they do it for financial gain') and causation ('he died for the want of food'), as Italian *per* does. It seems that *per* relates two events through the same basic (⊇) operator that we have postulated for *with* morphemes (see **FrancoManzini2017b**:26-27 for further evidence connecting *for* and *with* in Romance).

In order to conceptually account for the (⊆)/(⊇) split in the encoding of Progressive *vs.* Prospective aspect, we may start from Jespersen's (1924:277) insight that Progressive aspect is "a temporal frame encompassing some reference time". Progressive aspect indeed seems to refer to an event which takes place at a certain time point (or interval) which is related to the reference/utterance time and at the same time is 'contained within' the natural unfolding/time-frame of a more general event (cf. **Dowty1979**, **Higginbotham2004**, among others).[5]

[5]This semantics of progressive is obtained through the analysis of **Higginbotham2009**, **Parson1989 Landman1992** among others, which proposes that a progressive sentence requires for its truth that the event in question *holds*, not that it *culminates*. The event holds at the utterance/reference time. In the case of progressives in the past, the past auxiliary expresses a

With achievement verbs the temporal frame encompassing the event is very narrow (i.e. punctual), so that they can be perceived as (partially) 'included' by the (more extended) time of reference, giving rise to a prospective interpretation. With activities or accomplishments, the event includes the time of reference (interpreted as a point in time) as its part. In other words, achievements are somewhat 'momentaneous' and cannot have subintervals, so that the progressive cannot pick up a (point in) time within the event.[6]

In present terms, we may assume that the time of reference/utterance is a superset (⊇) of the temporal frame of the event when we render prospective aspect, while it is a subset (⊆) of the temporal frame of the event whenever we render a progressive interpretation.

From a morphosyntactic viewpoint, when we consider the Italian 'be/stay + 'oblique' adposition + infinitive verb' periphrasis, there is no difference in the encoding of prospective *vs.* progressive aspect, except for the different relator (⊆) *vs.* (⊇) selected from the lexicon.[7]

Standardly assuming that the auxiliary moves to fill the Inflectional projection (**ManziniEtAl2017** and references cited there), we can provide the rough representation in (**??**) and (**??**), respectively for the examples in (**??**) and (**??**). (**??**) basically says that the reference time (as represented in the tensed matrix clause) is 'part of' the time frame of the (embedded) event, where the operator (⊆) 'subset' is instantiated by the dative adposition *a*, while (**??**) says that the reference time spans (i.e. include) the (punctual) time frame depicted by the event, where

time which is previous to the utterance time (**Higginbotham2009**). That is, *Mary is eating an apple* is true if the actual event realizes sufficiently (holds) much of the type of event (temporal frame) of *Mary's eating an apple*: so the actual event is a subset of the type event of *Mary eating an apple* since Mary may not have finished to eat the apple. For a more detailed analysis of the semantic of progressives for this type of constructions see Manzini at al. (**??**).

[6] As suggested by **Rothstein2004**, if the achievement is coerced to being an accomplishment, it is possible to assume that the progressive picks up a time immediately preceding the culmination of the event.

[7] Languages vary in the lexical tools (e.g. aspectual periphrases) they employ to convey (different) aspectual flavours. French and Romanian employ axial parts/relational nouns (**Svenonius2006**) to encode progressive meaning (e.g. French *être en train de*+infinite, Romanian *a fi în curs de a*+infinite); Italian can also encode prospective meaning in a similar vein (e.g. *essere sul punto di*+infinite). In Icelandic the progressive periphrasis can be employed to convey a terminative/cessative value (e.g. *Ég var að borða,* both: 'I was eating/I just finished eating', cf. **Jóhannsdóttir2012**). In Japanese the same aspectual marker *-te i-* can refer to either progressive or resultative meaning (**Shirai1998**). It is a likely scenario that these various interpretations (both intra and cross-linguistically) based on a given morphosyntactic template are derived by pragmatic enrichment at the C-I interface. The same can be said of the (⊇) based African periphrases illustrated in (**??**)-(14).

the operator (⊇) 'super-set' is lexicalized by the *per* adposition.

(23)

IP
DP
Gianni I VP
sta
V (⊆)P
sta
(⊆) VP
a
lavorare

(24)

IP
DP
l'aereo I VP
sta
V (⊇)P
sta
(⊇) VP
per
atterrare

At this point, we still have to explain why the 'stay + gerund periphrasis' is able to encode both progressive and prospective aspect, and how such device can be related, from a morphosyntactic viewpoint, to our 'part-whole' model of aspectual periphrases.

We follow Gallego (2010, cf. **Mateu2002**, **Franco2015**) in assuming that Romance gerunds incorporate an adposition, namely the *–ndo* morpheme is an inflectional counterpart of the prepositions which embed infinitive complements in the examples above. Consider the minimal pair below, involving a (⊆) relator (cf. also **Casalicchio2013**, from which the example (**??**) is taken).

(25)

a. ***A*** ben guardare si nota la differenza
b. Guarda**ndo** bene si nota la differenza
both: ”If one looks well, he notices the difference’.

Quite interestingly, gerunds often happen to express the (⊇) content that we have ascribed to *with* and *for* morpheme.[8] Consider the minimal pairs below, with an ‘instrument’ (**??**) and a ‘purpose’ (**??**) flavour.

(26)

a. Il dottore ha curato il paziente somministrando un antibiotico
‘The doctor cured the patient administering an antibiotic’
b.Il dottore ha curato il paziente **con** la somministrazione di un antibiotico
‘The doctor cured the patient with the administration of an antibiotic’

(27)

a. Gianni lo dice scherzando
b. Gianni lo dice **per** scherzo
both: “Gianni says that as a joke”

Given this evidence, we can assume that the gerund inflection in Italian is able to encode both (⊆) and (⊇) contents. More specifically, we hypothesize that the *–ndo* inflection does not differentiate between the two specular ‘inclusion’ relations, instantiating an all-purpose oblique, spanning from datives to instrumentals (cf. **FrancoManzini2017**: 24-28, for relevant data from Kristang and Southern Italian dialects). This explains why the ‘stay + gerund’ periphrasis is able to encode both progressive and prospective aspect, always bearing in mind that the aspectual interpretations depends on the *aktionsart* of the verbs that enter in the aspectual constructions (i.e. achievements vs accomplishments, see (22-23)) . We roughly schematize our proposal in structures (**??**)–(31), for (**??**) and (**??**), respectively. These structures crucially prospect a lexical entry for *–ndo*, where this element is associated with both (⊆) and (⊇) content.

(28)

[8] Note that according to **FrancoManzini2017b** the (⊇) relation between a *with/for* phrase and a vP/VP event precisely yields inclusion in an event/concomitance with it.

IP
DP
Gianni …
I VP
sta
V …
V (⊇)
lavora -ndo

(29)

IP
DP
l'aereo …
I VP
sta
V …
V (⊆)
atterra -ndo

**4. Conclusion**

In this paper, we have addressed the morphosyntactic status of the adpositional morphemes surfacing in aspectual periphrases in Italian and beyond. We have shown that adposition-based aspectual periphrases share a primitive relation of 'part-whole/inclusion' (the same (⊆) relation which is at work with datives/genitives) of an event within a set of events or, alternatively, between the reference time and the time-frame of an event/set of events. We have supported this claim with a series of cross-linguistic examples in which the expression of progressive meaning relies on *with*-like adpositions and HAVE predicates, which seem to have a clear non-locative value (**Levinson2011**). We have provided a morphosyntactic analysis of Italian progressive periphrases, assuming that gerunds encode an inflectional 'inclusion' relator which is compatible with a prepositional value. We have finally argued that the (⊆)/(⊇) distinction advanced by **FrancoManzini2017b** for the encoding of argumental/thematic material, happens to be relevant also in the realm of aspectual periphrases.

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# Chapter 8

# The modal side of the dative: From predicative possession to possessive modality

Egor Tsedryk

**Abstract**. This chapter examines predicative possession (e.g., I have a book) in relation to possessive modality (e.g., I have to buy a book) (**Bhatt1997**; **BjorkmanCowper2016**). **BjorkmanCowper2016** report that in Hindi-Urdu and Bengali (BE-languages), possessive modality consistently correlates with the dative case, whereas predicative possession allows other obliques, namely genitive. They propose that both predicative possession and possessive modality are reducible to an interpretable feature encoding inclusion, [INCL], and suggest that the dative case is a morphosyntactic realization of [INCL] combined with a modal operator within a single syntactic head via featural composition. Focusing on Russian – another BE-language – I show that there are problems with this analysis. Russian data indicates that possessive modality in this language is to be derived from directional (vector-like) semantics of the head that introduces the dative. I offer a unified account of the dative used with an NP and the one used with a TP, assuming a single argument-introducing head, i* (**WoodMarantz2017**).

**Keywords**: possession, modality, inclusion, directional meaning, dative infinitive construction, Russian

## 1 Background

The BE + OBLIQUE pattern in BE possession languages, or BE-languages (Isačenko

1974) has been taken as evidence to support a unified analysis of possession and necessity, as in (??), an example from Bengali (**BjorkmanCowper2016**: 43). Bjorkman & Cowper (ibid.: 31) use the term "possessive modality" to refer to constructions like (??), which express modal necessity and have a morphosyntactic resemblance to predicative possession.

(1)

a. ***Amar bondhu-r*** *akʈa boi aatʃhe.*
my friend-GEN one book be.PRS
'My friend has a book.'
b. ***Amar bondhu-ke*** *je-te ho-be.*
my friend-DAT go-INF be-FUT
'My friend has to leave.'

Note that there is a discrepancy in the case marking of the bolded DPs in (??) and (??). Interestingly, possessive modality consistently correlates with the dative case.[1] As Bhatt (1997: §??) suggests, the dative could be related to a lack of control over a situation, but he does not develop this idea any further.[2]

**Bhatt1997** offers an account of possessive modality, relying on the idea that HAVE is a result of incorporating a "prepositional determiner" (D/P) into the underlying verb BE (following **Freeze1992** and **Kayne1993**). Along the lines of Kayne's analysis, a sentence like *I have a book* has the structure in (??) (several technical details being put aside). The possessor (Subj) is base-generated with the possessee (within an agreement phrase), and it has to move for case reasons. In BE-languages, the specifier position of D/P is a case position, but in HAVE-languages, it is not. Thus, Subj is forced to move further. Spec,DP is assumed to be an A'-position and, in order to avoid improper movement, D/P has to incorporate into BE (I am not going to expand on this idiosyncrasy of Kayne's analysis; see Myler (2016: 320–328) for an overview and a critical assessment). A sentence like *I have to buy a book*, on the other hand, has the structure in (??), which is very similar to (??). The only difference is in the type of D/P's complement: in (??), it is a proposition with a modal operator (Mod).

(2)

[1] Bhatt (1997: example 7) reports a case of possessive modality in Bengali with a genitive subject. However, Bjorkman & **Cowper2016** report that the dative case is the preferred option in their informant's dialect.

[2] The same idea is also recurrent in the literature dealing with so-called "involuntary state constructions" in Slavic (**Rivero2009**: 154; **RiveroArregui2012**: 312).

a. [Subj$_i$ BE [$_{DP}$ t'$_i$ D/P [$_{AgrP}$ t$_i$ *a book*]]]
b. [Subj$_i$ BE [$_{DP}$ t'$_i$ D/P [$_{ModP}$ Mod [*to* [t$_i$ *buy a book*]]]]]

According to this analysis, possessive modality expresses a relation between an individual and a proposition containing a modal operator: *I have (an obligation) to buy a book*.

**BjorkmanCowper2016** (henceforth B& C), on the other hand, argue against a modal operator in the propositional component of possessive modality. They analyze possession and necessity in terms of inclusion. The latter is not formally defined, but the basic idea is expressed in the following lines:

> Though *inclusion* or *part-whole* seems to be a reasonable relation to postulate in the domain of inalienable possession, [… a] potentially more interesting possibility is that abstract possession relations, such as alienable possession and kinship relations, can also be usefully seen as involving some kind of inclusion or containment. […] A clear statement of this type of intuition can be found, for example, in the following lines from **BonehSichel2010**:
>
> "We take Part-Whole to be broader than inalienable possession and to include also social relations and inanimate Part-Whole" (pp. 2–3)
>
> "[T]he complement of the applicative head [= a subset of possessees] can be understood as **falling within the sphere** of the applied argument." (p. 28, emphasis ours)
>
> The idea of containment within a sphere of influence, expressed in the second of these quotes, suggests a possible link between inclusion and the notion of *control*, discussed on the context of typological work on possession by authors such as **Heine1997** and **Stassen2009**. (**BjorkmanCowper2016**: 33–34)

B& C propose to formalize inclusion as a morphosemantic feature, [INCL], specifying a functional verbal/applicative-like head, labeled as little v (cf. ⊆ and ⊇ in Franco & Lorusso, this volume). According to B& C, [INCL] is responsible for the projection of an asymmetric structure, in which the possessor ("the applied argument" in the passage above) asymmetrically c-commands the complement of the head bearing this feature.

The link between predicative possession and possessive modality (modal necessity) is captured as follows. In the case of predicative possession, [INCL] relates individuals, or arguments of type *e* (possessor and possessee). There are

two options for v[INCL] in (??): it can assign case to its complement (in HAVE-languages) or it can introduce an oblique argument in the specifier of v[INCL] (in BE-languages).

(3)

vP
Possessor
v Possessee
[INCL]

In the case of possessive modality, the arguments related by [INCL] are sets of worlds, or arguments of type ⟨*s*, *t*⟩: (i) a set of accessible worlds of the modal base and (ii) a set of worlds in which a given proposition is true (the first set is a subset of the second). According to B& C, whenever inclusion is extended from individuals to sets of worlds, the syntactic realization of these arguments changes as well. More precisely, the argument associated with accessible worlds is realized as a modal feature on the head that bears [INCL]: either [ROOT] or [EPIST] (epistemic). That is, the semantic co-argument of the proposition is not merged in the specifier position of v (v is an intransitive head in this case); the latter hosts the subject raising out of the proposition.

(4)

vP
Subj
v Proposition
[INCL]
[ROOT/EPIST]
… ⟨Subj⟩ …

Finally, different combinations of features result in different realizations in morphology. In English – and hypothetically other HAVE-languages – v[INCL] is realized as *have* irrespectively of whether or not there is an additional modal feature. In Bengali – and hypothetically other BE-languages – [INCL] is realized in the specifier position, based on the following rules (B& C: 46).

(5)

a. v[INCL][ROOT/EPIST] ⟶ DAT
b. v[INCL] ⟶ GEN

In other words, languages are expected to vary with regard to the degree of feature specification in morphology and the locus of the morphosyntactic realization of [INCL] and other features it is paired with (specifier or head + complement).

Generally, I agree with B& C's analysis of HAVE in both predicative possession and possessive modality, but I disagree with their treatment of the dative case in BE-languages, at least in a subset of such languages. Their analysis might be a good fit for Hindi/Bengali, but I will show that it faces problems when applied to a BE-language like Russian. These problems are discussed in §?? As we will see, Russian has predicative possession with both a locative (actual) possessor and a dative (possible/prospective) possessor. The former is indeed the bearer of feature [INCL], but the latter has a purely directional meaning ('towards'). It is the latter that I propose to link to possessive modality, not the former. Following **Tsedryk2019**, I use Wood & **Marantz2017**'s (**Marantz2017**) single argument-introducing head in my analysis of both possessors. §?? elaborates on such notions as "sphere" and "control", mentioned in the excerpt from B& C, preceding (??) above. In §??, I use the same argument introducer in my analysis of possessive modality in Russian. Finally, §?? concludes.

## • 2 Focus on Russian

### 2.1 Overview

In (??), I provide a Russian equivalent of a pair like the one in (??), presenting predicative possession in (??) and possessive modality in (??). The latter example illustrates a so-called "dative infinitive" construction expressing modal necessity, which – according to B& C – is a prerequisite of possessive modality.[3]

[3] B& C (footnote 18) briefly mention Russian, but the only example they provide is a *wh*-question in (i) (from **Jung2011**: 105). As shown in **Tsedryk2018** (see also **Fortuin2007**), Russian dative infinitive constructions may have different modal flavours (necessity, ability and deontic flavours), depending on the morphosyntactic makeup of the clause (see §??). (i) Začem mne bylo tam ostavat'sja? why me.DAT be.PST.N.SG there stay.INF 'Why was I supposed to stay there?' Moreover, Bhatt (2006: ch. 4) has shown that infinitival questions in English exhibit a variable modal behaviour (*could*, *would* or *should*), depending on the context and the embedding verb (e.g., *Ásta knows where to get gas, Ásta decided where to get gas, Ásta told Hafdis where to get gas*; see **Bhatt2006**: 124). In other words, infinitival questions are not a perfect testing ground for modal necessity or possessive modality, as defined by B& C.

(6)–

a. ***U menja*** *est' kniga.*
at me.GEN be.EXIST book.NOM
'I have a book.'
b. ***Mne*** *zavtra rano vstavat'.*
me.DAT tomorrow early get.up.IPFV.INF
'I have to get up early tomorrow.' (**Tsedryk2018**, (**??**))

To apply B& C's analysis, we would have to assume that the existential light verb ($v_{exist}$) in (**??**) bears feature [INCL], which is responsible for the merger of the locative PP in Spec,vP, as shown in (**??**). As for (**??**), it would have the structure in (**??**), where [INCL] is clustered with feature [ROOT], responsible for the dative case assigned to the subject raised to Spec,vP.

(7)

a. vP
PP
*u menja* $v_{exist}$ NP
[INCL] *kniga*
b. vP
$DP_{[DAT]}$
*mne* v XP
[INCL] ⟨DP⟩ *zavtra rano vstavat'*
[ROOT]

Even though this analysis seems to unify predicative possession with possessive modality, it faces a number of problems when put under the scrutiny of a careful examination. The goal in §**??** is a more detailed analysis of predicative possession in Russian. I start with the locative possessor. Possessive modality in Russian will be left for §**??**

- **– 2.2 Where is [INCL]?**

One of the complications that we face with Russian is that it overtly marks its possessors with a locative preposition *u* 'at' assigning the genitive case, as in (**??**). It means that v[INCL] in (**??**) has nothing to do with the genitive case marking, and the rule in (**??**) cannot be applied. The fact that Russian has a prepositional

element *u* 'at' raises a question about the relevance of [INCL] in v: it is plausible that [INCL] is encoded by *u* 'at' and, as far as morphosyntactic rules are concerned, we only need to replace the category in (??), replacing v by P, as in (??).

(8)

a. PP
P $DP_{[GEN]}$
*u menja*
b. P[INCL] ⟶ GEN

Moreover, the structure in (??) – with feature [INCL] in v – makes a wrong prediction about the set-theoretic relationship between the specifier and the complement of v. In **Tsedryk2019**, I show that the complement of the existential light verb *est'* 'be' in predicative possession denotes a set of individuals with a characteristic function. That is, it has to be of type ⟨*e*, *t*⟩, not of type ⟨*e*⟩ (individual). Even if we have a DP like *eta kniga* in (??) we still have type ⟨*e*, *t*⟩ (this kind of books). In other words, expressions like *est' kniga* in (??) or *est' eta kniga* below are generalized quantifiers of type ⟨⟨*e*, *t*⟩, *t*⟩ (see **Tsedryk2019** for more data and further discussion).

(9)

*U menja est' eta kniga.*
at me.GEN be.EXIST [this book].NOM
'I have this (kind of) book.'

Now, assuming that the locative/possessive *u*-PP is also of type ⟨*e*, *t*⟩ (following **HeimKratzer1998**: 65), we predict with feature [INCL] in (??) that we should have a set-subset relation between *u*-PP and the NP/DP. Crucially, we do not have the reading of possession of a set of books – that is, the interpretation is not of a set of books contained/ included in a larger set of the objects belonging to the speaker. From a set-theoretic point of view, we have an intersection (not containment) between a set of books and a set of individuals that are in speaker's domain/-sphere. The meaning of the existential expression *est' kniga* from (??) is given in (??).[4] Denotation of *u menja* is given in (??), where 'within'(*d*(speaker'))(x)' is to be read as "x is within the domain/sphere of the speaker" (cf. "sphere" in the excerpt from B& C, above (??)).[5] Note that inclusion is part of the denotation in

[4] I use Heim & **Kratzer1998**'s (**Kratzer1998**) $\lambda$-notation.

[5] For now, just assume that domain/sphere is synonymous of ownership. A more general definition will be provided in §?? Composition of 'within'(*d*(speaker'))(x)' will be covered in §??

(??), not that in (??) (where the predicate/head is *est'*). In (??), we have a result of Functional Application between (??) and (??). (??) shows the calculation of a truth value in a syntactic tree.[6]

(10)

*Functional Application*: "If α is a branching node, {β, γ} is the set of α's daughters, and $\beta$ is a function whose domain contains $\gamma$, then $\alpha = \beta(\gamma)$." (**HeimKratzer1998**: 44)

(11)

a. est' kniga = $\lambda f \in D_{\langle e,\ t\rangle}$ . $\exists x \in D_e$, book'(x) ∧ f(x)
b. u menja = $\lambda x \in D_e$ . within'(*d*(speaker'))(x)
c. est' kniga ( u menja) = $\exists x \in D_e$, book'(x) ∧ within'(*d*(speaker'))(x)

(12)

$vP_t$
$PP_{\langle e,\ t\rangle}$ $vP_{\langle\langle e,\ t\rangle,\ t\rangle}$
*u menja*
$v_{\langle\langle e,\ t\rangle,\ \langle\langle e,\ t\rangle,\ t\rangle\rangle}$ $NP_{\langle e,\ t\rangle}$
*est' kniga*

In short, if we assume a feature like [INCL] in Russian predicative possession, it should be part of the possessive *u*-PP (i.e., it is formally encoded by *u* 'at', not the verb).[7] Assuming this feature in the existential light verb *est'*, as in (??), is problematic for two reasons: (i) it is redundant, and (ii) it makes a false prediction about the inclusion relation between the specifier (set) and the complement

[6] The structure in (??) is a simplified version of the structure proposed in **Tsedryk2019**, where I analyze the existential BE as a composition of a category-defining head v (dummy copula) and $Q_{exist}$ that forms a small clause, as in (i) (the truth value is obtained in QP, and then v is added to verbalize the structure): (i) [$_{vP}$ v [$_{QP}$ PP [$_{QP}$ *est'* [$_{NP}$ *kniga*]]]]

[7] The adposition/preposition *u* 'at' would correspond to ⊇ in Franco & Lorusso (this volume), if we had to find a common set-theoretic denominator among P-heads, abstracting away from their thematic differences (locative, instrumental, etc.). However, the distinction between ⊆ and ⊇ is not useful in the logical form. In fact, the right side of the formula in (??) could be rewritten as either $\exists x \in D_e$, *d*(speaker') ⊇ book'(x) or $\exists x \in D_e$, book'(x) ⊆ *d*(speaker'). At this point, it is not clear to me how the use of these set-theoretic symbols would fit compositional rules assumed in this chapter.

(subset) of v. I conclude that predicative possession in a BE-language like Russian does not support a structure like (??)/(7a) where [INCL] is supposed to relate the specifier to the complement. In addition to a set-subset relation, we also have to take into account intersection of two sets, as it is the case in (??): set one, denoted by PP *u menja* 'at me', intersects with set two, denoted by NP *kniga* 'book'. If Russian does not have evidence of a v-head bearing [INCL] that would introduce a possessor, it weakens considerably the hypothesis that the dative in (??) has anything to do with such a head (+ a modal feature). This state of affairs is complicated even further by the possibility of using a dative with the existential *est'* in Russian.

- **– 2.3 Predicative possession with a dative**

A curious fact about Russian predicative possession is that it also allows using a dative DP, as in (??). This dative is interpreted as a prospective/possible possessor, not the actual one, as in (??). The sentence in (??) means that there is a presupposed set of books (implied by *tože* 'also') and one of the members of this set is a potential candidate for Vanja's possession. As shown in (??), this dative can co-occur with the actual possessor.

(13)

a. ***Vane*** *tože est' kniga.*
Vanja.DAT also be.EXIST book.NOM
'There is also a book for Vanja.'
b. ***U menja*** *tože est'* ***Vane*** *kniga.*
at me.GEN also be.EXIST Vanja.DAT book.NOM
'I also have a book for Vanja.'

What is important for the current discussion is that the dative in (??) cannot be analyzed along the lines of inclusion, as it is not an actual possessor. That is, we do not have feature [INCL] in (??), and in (??) we have [INCL], but this feature is part of *u*-PP, as suggested in §?? We cannot claim that the dative in (??) involves [INCL] + a modal feature either, since *kniga* 'book' is arguably not a proposition. At the same time, the availability of this dative makes me wonder if precisely this dative is to be linked to the dative in (??). In other words, it is not the locative with feature [INCL] that is relevant for possessive modality in (??), but the dative denoting a possible possessor. And, by transitivity, if this dative is not specified for [INCL], we have to reconsider B& C's claim that the dative

in possessive modality cases should be attributed to [INCL] + [ROOT] features, as stipulated in (??). Note that we would still have to establish a link between predicative possession and possessive modality, but this link is to be established between the dative in (??) and the modal dative (??), not between the possessor in (??) and the modal dative in (??).[8]

In **Tsedryk2019**, I use Wood & **Marantz2017**'s (**Marantz2017**) argument introducer (*i**) to derive both the locative and the dative in (??). Let me show how these derivations proceed, as they serve as a step towards my analysis of the modal dative in (??), which will be presented in §?? I start with a brief outline of the assumptions about *i** (see also Calindro, this volume). Assumptions about argument-introducing heads are independently motivated. Whether or not one assumes a single argument-introducing head (as I do here) or a set of distinctive applicative heads (**Pylkkänen2007**; **Cuervo2003**; **Markman2009**) is a matter of methodological choice. My proposal can be implemented in either way. However, the main advantage of Wood & Marantz's framework is that it provides an additional insight into the category of applied arguments, restricting the proliferation of possible applicative structures (see discussion of (??)).

The main function of *i** is to extend an XP by adding a DP to it and to "close off" that XP (**WoodMarantz2017**: 258). Whenever an existing XP is extended by *i**, the asterisk is projected to mark this extension, as shown in (??) ('*' is a notational convention that captures the basic function of *i**).

(14)

X*P
DP X*P
*i** XP

In (??), we have a bare *i**, but the relevant for us structure is the one in (??), where a lexical root merges with *i** before the latter merges with an XP. In (??), I list the assumptions pertaining to the feature specification of *i** (see **Tsedryk2019** for a discussion of (??); Wood & Marantz assume that √ is responsible for the thematic role assigned to DP).

(15)

[8] I do not know if datives like the one in (??) exist in Hindi or Bengali. However, their absence would not be an argument in favour of B& C's analysis and an argument against my proposal that the dative in modal contexts has a primarily directional meaning.

X*P
DP X*P
*i** XP
√ *i**

(16)

a. *i** has a set of two features: (i) a selectional feature, [s:D] (it selects for a DP) and (ii) an unvalued categorial feature, [cat:__] ([s:D] does not have to be checked/saturated immediately).
b. XP values [cat:__].
c. If XP is a DP, [cat:__] is valued as P (i.e., [s:D] is checked before [cat:__] is valued).
d. The inherent case assigned to DP is determined by √.

In **Tsedryk2019**, I assume two lexical roots, $\sqrt{\text{at}}$ and $\sqrt{\text{to}}$. The first one bears the inherent genitive case, $\sqrt{\text{at}}_{[\text{GEN}]}$, and encodes inclusion ('within'). The second one bears the inherent dative case, $\sqrt{\text{to}}_{[\text{DAT}]}$, and encodes directionality ('towards'). If there is a feature like [INCL], this feature is a property of the first lexical root, which assigns the genitive case. This assumption captures the intuition behind the rule in (??). The only proviso is that the root is not categorial: category P is derived; the relevant structure is shown in (??), which is an *i**-version of (??). The derivation in (??) proceeds as follows: $\sqrt{\text{at}}_{[\text{GEN}]}$ merges with *i** (the root does not project; only its grammatical feature (case) is projected to the resulting branching node). DP checks [s:D] before [cat: __] is valued, and [cat:__] receives value P under (??).[9] Case is assigned to the category that checks [s:D] (under sisterhood). The form *u* spells out the root in the context of P.

(17)

PP
$\text{P}^*_{[\text{s:D}][\text{GEN}]}$ $\text{DP}_{[\text{GEN}]}$
*menja*
$\sqrt{\text{at}}_{[\text{GEN}]}$ *i**
*u* $\text{P}_{[\text{s:D}]}$

As for the dative in (??), it is derived from the root $\sqrt{\text{to}}_{[\text{DAT}]}$ that merges with *i** and the latter "closes off" an NP, as shown in (??).[10] In this case, [cat:__] receives

[9] **WoodMarantz2017** do not put the asterisk in PP. My understanding of this *-less labeling is that PPs by definition do not extend an already existing XP.
[10] I use N instead of the category-defining head n, but it is just a notational choice.

value N before [s:D] is checked. The dative case is assigned to the DP that checks [s:D] upon the final merger in (??). The root does not have an overt exponent in this context (without P).[11]

(18)

N*P
DP$_{[DAT]}$ N*P$_{[s:D][DAT]}$
*Vane*
N*$_{[s:D][DAT]}$ NP
*kniga*
$\sqrt{\text{to}}_{[DAT]}$ *i**
N$_{[s:D]}$

Finally, let me add a couple of remarks related to the semantic composition in these structures. This part of the analysis (not presented in **Tsedryk2019**) is my own extension of the ideas related to the semantic side of *i**. **WoodMarantz2017** take *i** as a semantically open function $\lambda$x.x whose construal (namely the thematic role assigned to the argument it introduces) is determined by the root and the XP it merges with (Agent, Beneficiary, Figure, etc.). In the context of the discussion involving such notions as inclusion and domain/sphere, I would like to make a slight refinement, suggesting that *i** is a function that introduces a domain/sphere (*d*) of an individual, as in (??).

(19)

$\text{i}^* = \lambda \text{x} \in \text{D}_e \,.\, d(\text{x})$

The goal behind (??) is to tie *i**'s features, [s:D] and [cat:__], with its semantic content. That is, the DP that *i** selects is supposed to denote an individual and the XP that values *i**'s categorial feature "falls within the sphere" of that individual (as put in the quote from B& C above (??); see the bolded part). At the same time, we should keep in mind that the XP and the selected DP may coincide in a PP structure like (??), but we still want to capture the same intuition that there is a domain involved, even if we do not have an X*P. To achieve this goal, I define both spatial roots as functions that can semantically compose with *i**, as in (??). When merging these roots with *i**, we compute the corresponding branching nodes,

[11] Russian does have an overt preposition, *k* 'towards', which encodes direction and assigns the dative case.

which are functions of type ⟨*e*, ⟨*e*, *t*⟩⟩, as shown in (??). The next compositional step for the uppermost node in (??) is Functional Application between the DP (*menja* 'me.GEN') and (??), which results in (??), repeating (??).

(20)

a. $\sqrt{\text{at}} = \lambda f \in D_{\langle e,\ t\rangle} . [\lambda y \in D_e . [\lambda x \in D_e . \text{within'}(f(y))(x)]]$
b. $\sqrt{\text{to}} = \lambda f \in D_{\langle e,\ t\rangle} . [\lambda y \in D_e . [\lambda x \in D_e . \text{towards'}(f(y))(x)]]$

(21)

a. P* in (17) $= \lambda y \in D_e . [\lambda x \in D_e . \text{within'}(d(y))(x)]$
b. N* in (??) $= \lambda y \in D_e . [\lambda x \in D_e . \text{towards'}(d(y))(x)]$

(22)

PP in (??) = u menja $= \lambda x \in D_e . \text{within'}(d(\text{speaker'}))(x)$

As for the composition of the lower N*P node in (??), we have to combine the function in (??) with the one in (??). Functional Application would not work, but N* and NP nodes can compose by Predicate Conjunction, (??).

(23)

NP in (??) = kniga = $\lambda x \in D_e . \text{book'}(x)$

(24)

*Predicate Conjunction*: "If α is a branching node, {β, γ} is the set of α's daughters, and $\beta$ and $\gamma$ are both in $D_f$, $f$ a semantic type which takes $n$ arguments, then $\alpha = \lambda(a_1, ..., a_n). \beta(a_1, ..., a_n) \wedge \gamma(a_1, ..., a_n)$." (**Myler2016**).

As **Myler2016** notes, following **Wood2015**, this rule is similar to Kratzer's (1996: 122) Event Identification. The latter takes a function of type ⟨*e*, ⟨*s*, *t*⟩⟩ and conjoins it with a function ⟨*s*, *t*⟩, returning a function of the first type (where *s* is an eventuality). In our case, there are no event variables; we conjoin a function of type ⟨*e*, ⟨*e*, *t*⟩⟩ in (??) with the one of type ⟨*e*, *t*⟩ in (??), obtaining again a function of type ⟨*e*, ⟨*e*, *t*⟩⟩, as in (??). This function in its turn composes with the DP *Vane*, resulting in (??).

(25)

a. lower N*P in (??) = $\lambda$y $\in$ $D_e$ . [$\lambda$x $\in$ $D_e$ . towards'(*d*(y))(x) $\wedge$ book'(x)]
b. upper N*P in (??) = Vane kniga = $\lambda$x $\in$ $D_e$ . towards'(*d*(vanja'))(x) $\wedge$ book'(x)

That is, the N*P *Vane kniga* is of the same type as the NP *kniga*, which makes it compatible for further composition with *est'*, as shown in (??), which is the structure of (??). In (??), I provide the logical form of (??) (abstracting away from the adverbial *tože*); (??) reads as follows: there is some x, of type *e*, such that x is directed towards the domain/sphere of Vanja (= prospective possession) and x is within the domain/sphere of the speaker (= actual possession).[12]

(26)

a. (13b) = u menja est' Vane kniga = $\exists$x $\in$ $D_e$, book'(x) $\wedge$ towards'(*d*(vanja'))(x) $\wedge$ within'(*d*(speaker'))(x)
b. $vP_t$
$PP_{\langle e,\ t\rangle}$ $vP_{\langle\langle e,\ t\rangle,\ t\rangle}$
*u menja*
$v_{\langle\langle e,\ t\rangle,\ \langle\langle e,\ t\rangle,\ t\rangle\rangle}$ $N^*P_{\langle e,\ t\rangle}$
*est' Vane kniga*

In conclusion, if we assume Wood & Marantz's *i**, which encompasses both prepositions and applicatives, we predict that a PP can never be introduced in an applicative structure of the (??) type, since *i** does not have the right feature to select for a PP. In other words, we cannot have a structure like (??) with a lexical root encoding inclusion and a PP as a sister of X*P. Assuming that [INCL] is closely tied to the genitive case, this feature would further percolate to the branching *i** node and establish an inclusion relation between PP (possessor) and XP (possessee). However, this implementation of the B& C's original idea is incompatible with *i**, unless we make additional assumptions in order to accommodate PP selection. This is another reason (in addition to redundancy and wrong set-theoretic predictions mentioned in §??) to exclude B& C's proposal for languages like Russian, which overtly mark their possessors as PPs.[13]

[12] If there were no *u*-PP, as in (??), the structure would still have an implicit argument of type $\langle e,\ t\rangle$ that would compose with the lower vP node. This implicit argument would correspond to a presupposed set of books.

[13] Note that we can have a structure like (??) but with a DP instead of a PP. This would be the case of a genitive DP without a P context. That is, we potentially can have genitive applied arguments. Russian does not have them, but they might exist in other languages. These languages

(27)

X*P
PP X*P
*i** XP
√ *i**
[INCL]

Since Russian allows datives in the context of predicative possession, I hypothesize that these datives (involving directionality), not the locative PPs (encoding inclusion), are also used in modal contexts when there is an XP of propositional type. I will illustrate an implementation of this idea in §?? Before moving to this part of my analysis, I will elaborate on the notion of domain/sphere, as well as the spatial relations it underlies. I will show that inclusion ('within') and directionality ('towards'), used in the analysis of predicative possession in this section, are paradigmatically related at a conceptual level.

## • 3 Possession and control

In cognitive grammar, possession is represented as an abstract image schema that has a "reference point" (= possessor), a "target" (= possessee) and a "dominion", which is "[a] conceptual region (or the set of entities) to which a particular reference point affords direct access (i.e., the class of potential targets)" (**Langacker1993**: 6; see also **Langacker2009**: 82). Langacker's "dominion" corresponds to what I was previously referring to as "domain/sphere" (*d*). If we follow B& C's suggestion to analyze possession in terms of inclusion, it seems natural to conceptualize the latter as a spatial relationship between the domain/sphere of a reference point, *d*(*R*), and a target point (*T*), as in Figure **??**, which is a simplified version of Langacker's schemas (e.g., it does not show a conceptualizer).

As we can see in Figure **??** and Figure **??**, there are two self-excluding logical possibilities: either *d*(*R*) includes *T* or *d*(*R*) excludes *T*. However, exclusion does not rule out a possibility of including *T* within *d*(*R*) if we add a vector, as in Figure **??**. Assuming inertia, if *T* continuously moves towards *d*(*R*), we can infer from the vector in Figure **??** that *T* will cross the inclusion boundary at some point. That is, even though *T* is not included in *d*(*R*) in the actual world,

(a subset of BE-languages) would fit B& C's analysis.

inclusion is still possible in an "inertia world" (**Dowty1979**).[14] It is thus plausible to differentiate between inclusion in the actual world and the one in an inertia (possible) world, as in Figure **??**. Crucially, motion and the end-point are inferred from the directional vector, but they are not part of the dative meaning itself (see Fábregas & Marín, this volume).

Possession (as a meta category) can thus be conceptualized as a feature-geometric system in (**??**), where the sisters are mutually excluding privative features and dominance corresponds to implication. The terminal nodes are the lexical roots (and their grammatical case features) assumed in §**??**[15]
(28)

Possession
Inclusion (within) Exclusion
$\sqrt{\text{at}}$ (genitive) Direction (towards)
$\sqrt{\text{to}}$ (dative)

Finally, in order to bridge the above features with the modal uses of the dative, let me touch upon the notion of control, mentioned in §**??** (see the excerpt from B& C above (**??**)). I shall start with a slight detour and provide further details on $d(R)$ and its content. What class of potential targets can we have? As a conceptual region (in Langacker's terms), $d(R)$ includes first of all $R$'s physical body and, depending on $R$'s animacy and human attributes, $d(R)$ can also include $R$'s living space, personal belongings, social relations and, ultimately, controlled situations. The list of things that can be included in $d(R)$ seems to be heterogeneous, but all these elements (we may call them "particulars") can be sorted into two main types, individuals and situations. In situation semantics (**Kratzer1989**, 2002, 2007/2017), $d(R)$ can be thought of as a "thick particular", as opposed to a "thin particular". In Kratzer's own words:

> We may consider particulars with all their 'properties'. This gives us the

[14] **Dowty1979** uses an inertia function in his definition of the progressive operator, assuming a branching time model. My use of the term, applied to a conceptual metaphor, is rather informal a this point. Interestingly, the dative does correlate with the imperfective operator in dative infinitive constructions (§**??**), but a detailed account of this correlation in the aspectual domain is beyond the scope of this paper.

[15] My analysis does not contradict to Franco & Lorusso (this volume), who observe that the dative morphology can mark inclusion in world languages. It is expected that languages vary at the morphological level (the dative being more or less polysemous). My point is that the dative is not reducible to inclusion universally. Russian makes a clear morphological distinction between locational and directional meanings. For example, Russian cannot mark actual possession using the dative like French (e.g., *ce livre est à moi* 'this book is mine'; cf. (**??**)).

> notion of a 'thick' particular. Alternatively, we may have a conception of a 'thin' particular. A thin particular is a particular with all its 'properties' stripped off (the 'residue' in more traditional terminology). When we say that a state of affairs is a particular's having a 'property' or two or more particulars standing in some 'relation', the notion of a thin particular is involved. Thick particulars are themselves states of affairs (but not every state of affairs is a thick particular, of course). (**Kratzer1989**)

As a thick particular, $d(R)$ is a set of thin particulars (cf. "entities" in Langacker's definition). Thin particulars, in theirs turn, are conceptualized as either individuals ($e$) or situations ($s$). That is, $T$ can be of type $s$ as well as of type $e$. This distinction will be relevant for us in §**??**, where I will use the same functions and compositional rules as in §**??**, but incorporating situations. Exclusion of a situation from $d(R)$ implies a lack of control over that situation in the actual world. However, adding a vector, as in Figure **??**, we infer that a situation is under control in an inertia world. This is what makes the dative – terminal node $\sqrt{\text{to}}$ in (**??**) – a good fit for a modal use. This last point finally brings us to my analysis of possessive modality in Russian.

## • 4 Possessive modality in Russian

As I have already mentioned in footnote 3, not all dative infinitive constructions in Russian have possessive modality. The latter is restricted to declarative imperfective clauses, as in (**??**). In (**??**), I show that the verb cannot be perfective. Perfective becomes possible if we add negation, as in (**??**), or use a *wh*-phrase, as in (**??**), but the modal flavour is not the same (see **Fortuin2007**; **Tsedryk2018**).

(29)

a. *Vane zavtra rano vsta-va-t'*.
Vanja.DAT tomorrow early get.up-IPFV-INF
'Vanja has to get up early tomorrow.'
b. * *Vane zavtra rano vsta-t'*.
Vanja.DAT tomorrow early get.up.PRF-INF
[the same as in (**??**)]

(30)

a. *Vane zavtra rano ne vsta-t'.*
Vanja.DAT tomorrow early NEG get.up.PRF-INF
'Vanja will not be able to get up early tomorrow.'
b. *Vo skol'ko Vane zavtra vsta-t'*?
at what.time Vanja.DAT tomorrow get.up.PRF-INF
'At what time should Vanja get up tomorrow?'

In what follows, I will focus on possessive modality and will not attempt an analysis of the modal flavours in (??), as this endeavour would take me too far afield. However, the syntactic derivation that I propose below can be applied to all dative infinitive constructions.

In a nutshell, my main idea is that *i** can create a dative applicative structure on the top of a TP, just like it creates such a structure on the top of an NP; compare (??) with (??).[16]

(31)

T*P
$DP_{[DAT]}$ $T^*P_{[s:D][DAT]}$
*Vane*
$T^*_{[s:D][DAT]}$ TP
⟨$DP_{[case:\_]}$⟩ *zavtra rano vstavat'*
('get up early tomorrow')
$\sqrt{to}_{[DAT]}$ *i**
$T_{[s:D]}$

Apart from the categorial difference, (??) is different from (??) by its derivational history: it is a raising structure (DP has a copy within TP). This peculiarity of (??) is derived from **Chomsky2013**'s (**Chomsky2013**) labeling algorithm, which resolves labeling ambiguity in cases like (??): two maximal projections are merged and do not share any features. In order to label $\alpha$, we have to merge an extra head H (which projects an HP) and move either XP or YP. Suppose it is XP that has to move, as in (??). This movement creates a "discontinuous element" (**Chomsky2013**), whose lower copy becomes irrelevant for labeling, and $\alpha$ is labeled as YP.

(32)

[16] A high applicative structure on the top of a TP is not new. It has already been proposed by **Rivero2009** and **RiveroArregui2012** for involuntary state constructions in Slavic.

a. $[_{\alpha}$ XP YP]
b. $[_{\beta}$ XP $[_{HP}$ H $[_{YP}$ ⟨XP⟩ YP]]]

We have the same situation in (??), where the subject raises from its thematic position (Spec,vP) and merges with a TP. Since we have an infinitival TP (without agreement features), there are two consequences: (i) DP cannot be case-marked and (ii) $\alpha$ cannot be labeled. We have to merge a case-assigning head. This is where $i^*$ comes into play. However, it cannot be a bare $i^*$ (which does not have its own case feature to assign); it has to be $i^*$ with a case assigning root.

(33)

a. $[_{\alpha}$ DP TP]
b. $[_{\beta}$ $i^*_{[DAT]}$ $[_{\alpha}$ DP TP]]
c. $[_{T^*P}$ $DP_{[DAT]}$ $[_{T^*P}$ $T^*_{[DAT]}$ $[_{TP}$ ⟨DP⟩ TP]]]

For simplicity's sake, I identify it as $i^*_{[DAT]}$ in (??). Note that $i^*_{[DAT]}$ does not have a categorial value at this point, since $\alpha$ is not yet labeled in (??). When DP moves (for case reasons), $\alpha$ is labeled as TP, $i^*$ receives its categorial value (T*), β becomes T*P, DP receives the dative case (checking [s:D]), and we obtain the structure in (??). The tree in (??) is the final state of this derivation.

Interpretation of the nodes in (??) is provided in (??). The main difference between (??) and (??) is that the category expanded by $i^*$ in (??) is a proposition ($p$). As defined in (??), it is a function of type $\langle s, t\rangle$, compared to the NP of type $\langle e, t\rangle$ in (??). Correspondingly, T* in (??) is of type $\langle e, \langle s, t\rangle\rangle$ (see (??)), compared to type $\langle e, \langle e, t\rangle\rangle$ of N* in (??) (see (??)). Just like with the NP, the semantic composition in (??) proceeds by Functional Application in all cases except (??), which is derived by Predicate Conjunction. We end up with a T*P, as in (??), which has the same semantic type as the TP in (??), but with a directional semantics of the dative.

(34)

a. $i^* = \lambda x \in D_e . d(x)$
b. $\sqrt{to} = \lambda f \in D_{\langle s,\ t\rangle} . [\lambda y \in D_e . [\lambda x \in D_s . towards'(f(y))(x)]]$
c. T* in (??) $= \lambda y \in D_e . [\lambda x \in D_s . towards'(d(y))(x)]$
d. TP in (??) $= \lambda x \in D_s . p(x)$
e. lowerT*P in (??) $= \lambda y \in D_e . [\lambda x \in D_s . towards'(d(y))(x) \wedge p(x)]$
f. upper T*P in (??) $= \lambda x \in D_s . towards'(d(vanja'))(x) \wedge p(x)$

According to (??), situations (in which $p$ is true) are directed towards Vanja's domain/sphere, but Vanja is not their controller, planner, or "director" (in the

sense of **Copley2008**: 272). There is a potentially infinite number of possible situations that could be excluded from Vanja's domain/sphere. Thus, the remaining step in the computation is to provide the modal base that would restrict all possible situations to those that are relevant in a given context ($c$).[17] The modal base (MB), as defined in (??), consists of all (contextually salient) preparatory situations (*Prep*) applied to a function of type $\langle s, t\rangle$ (cf. "preparatory process" in **CipriaRoberts2000**: 328–331, following **MoensSteedman1988**).[18] Functional Application between (??) and (??) results in (??), which is read as follows: for all x, such as x is a preparatory situation, it is true that x is directed towards Vanja's domain/sphere, and $p$ holds. The tree in (??) shows this last step of the derivation in syntax (a merger between C, which provides the modal base, and T*P).

(35)

a. $\text{MBPrep}^{c} = \lambda f \in D_{\langle s,\ t\rangle}\ .\ \forall x \in D_s,\ \textit{Prep}(x) \longrightarrow f(x)$

b. $\text{MBPrep}^{c}$( upper T*P in (??)) $= \forall x \in D_s,\ \textit{Prep}(x) \longrightarrow [\text{towards'}(d(\text{vanja'}))(x) \wedge p(x)]$

(36)

$CP_t$

$C_{\langle\langle s,\ t\rangle,\ t\rangle}$ $T^*P_{\langle s,\ t\rangle}$

$MB_{Prep}$ *Vane zavtra rano vstavat'*

('Vanja.DAT get up early tomorrow')

The imperfective entails that every preparatory situation is interpreted as an inertia situation (without interruptions), which inevitably reaches Vanja's domain/sphere in a corresponding inertia world (cf. "preparatory inertia" in **RiveroArregui2012** 324 and **ArreguiEtAl2014**: 327).[19]

[17] I abstract away from the accessibility relation here. An articulated account is yet to be developed.

[18] Sentences like (??) imply a topic situation, as in (i) (in brackets). Preparation for the main event (Vanja's early rising tomorrow) is an alternative to the topic situation (Vanja's sitting for long time). (i) *Vane zavtra rano vsta-va-t' (on ne možet* Vanja.DAT tomorrow early get.up-IPFV-INF he NEG can *s vami dolgo sidet').* with you long.time to.sit 'Vanja has to get up early tomorrow (he can't sit with you for long time).'

[19] Rivero & **Arregui2012** claim that the imperfective in Russian (and West Slavic) does not have access to preparatory inertia, as it cannot have intentional readings. This claim is partly true. Indeed, the imperfective in Russian cannot have intentional readings in the past tense, as shown in (i). (i) * Vanja vsta-va-l v pjat' utra poka ne Vanja.NOM get.up-IPFV-PST at five of.morning

To summarize, possessive modality in Russian is represented by a subset of dative infinitive constructions, declarative and imperfective. My goal in this section was to show that there is a parallel between the datives introduced above NP and those introduced above TP. In the latter case, the dative entails that a situation is not under control in the actual world, but can be brought under control in an inertia world. This possibility is derived from the directional semantics of the dative argument introducer in the context of inertia situations entailed by the imperfective.

## • 5 Conclusion

Predicative possession and possessive modality show a striking similarity, but they also differ with respect to case marking in BE-languages. Possessive modality correlates with the dative case. **BjorkmanCowper2016** propose to capture the attested similarity, using a morpho-semantic feature, [INCL], which encodes inclusion within an abstract domain/sphere. As for the dative case, they suggest that it is a spell-out of [INCL] bundled with a modal feature, [ROOT] or [EPIST]. I have shown that this analysis, when applied to Russian, has a number of limitations. First, it makes false predictions with respect to locative (actual) possessors. Second, it has little to say about the predicative possession with dative (prospective) possessors. I suggested that the link between predicative possession and possessive modality should be established via directional semantics of the head introducing this dative in two syntactic contexts, NP (sets of individuals) and TP (sets of situations). In my analysis, I used Wood & **Marantz2017**'s (**Marantz2017**) argument introducer and two spatial roots, $\sqrt{\text{at}}$ and $\sqrt{\text{to}}$. Possessive modality is derived from the directional semantics of the second root and inertia situations entailed by the imperfective. My analysis leads to a hypothesis that possessive modality in other BE-languages could also be linked to directional semantics (even if a language does not use the same datives as Russian). The dative case used in possessive modality structures is not a trivial matter of language-specific spell-out rules; it calls for a careful crosslinguistic investigation.

**Acknowledgements**

until NEG otmenili trenirovku. canceled.3PL practice *Intended*: 'Vanja was planning to get up at 5 am until the practice was canceled.' However, Rivero & Arregui do not consider Russian dative infinitive constructions, as in (**??**), which do have an intentional reading (e.g., the intention is to get up early tomorrow). There is some "clash" between the imperfective and the past tense in Russian, preventing intentional readings in cases like (i), but otherwise the claim that preparatory inertia is not available for the imperfective in Russian is too strong.

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## Chapter 9

# Datives and stativity in psych predicates

Antonio Fábregas

Rafael Marín

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## 1 Introduction

## Abbreviations

## Acknowledgements

# Part III

# Applicatives

# Chapter 10

# When the applicative needs the antipassive

David Basilico

Put abstract here with \abstract.

**University of Alabama at Birmingham**

Abstract. In some languages, an antipassive morpheme feeds applicativization, in others, it bleeds it. The analysis of this asymmetry given here relies on two recent proposals: **Pyllkänen2008**'s (**Pyllkänen2008**) view that the low applicative must merge with a transitive verb and Basilico's (2012, 2017) claim that that the antipassive marker can introduce an internal argument. In those cases where the antipassive feeds the applicative, the antipassive marker introduces the internal argument, while in those cases where it bleeds it, the antipassive marker is the expected intransitivizer, disallowing an internal argument from appearing syntactically. This work provides a parsimonious account of the cross-linguistic differences in applicative formation with the antipassive.

## 1 Introduction

In a number of languages, an antipassive morpheme appears in cases of applicativization.[1] A particularly interesting example comes from Chukchi (Dunn, 1999).

[1]1. I would like to thank the audience at the *Dative structures and beyond* conference for helpful insights and comments, as well as two anonymous reviewers for their reading and comments. The usual disclaimers apply. Abbreviations used in the paper are as follows.1sgfirst person singular asp aspectual morpheme2sg second person singular erg ergative3sg third person singular ind indicative moodabs absolutive instr instrumentalaor aorist part partitive moodap antipassive pt particle

He considers that there is both an applicative and antipassive form of the *-ine* prefix. An example of the applicative use of *-ine* is seen in the following examples. **Dunn1999** states "this applicative relates to the original transitive stem so that the O of the original stem is an oblique and another oblique argument of the original stem is the O."

(1)

Chukchi (**Dunn1999**)
a. ətlʔa-ta jəme-nenat ewirʔ-ə-t
mother-erg hang-3sga.3plo clothing-e-3pl.abs
'Mother hung up the clothes.'
b. ətlʔa-ta **ena**-jme-nen tətəl meniɣ-e
mother-erg **ap**-hang-3sga.3sgo door. 3sg.abs cloth-inst
"Mother hung the door with cloth."

Note that the translations in the examples are different. In (a), the theme is an absolutive while in (b) it is an oblique, with the added argument in (b) being a location that appears as the absolutive. Note also that the morpheme *–ine* appears (as *–ena* as a result of phonological processes). The antipassive use of *–ine*, which is more well-known, is seen in the following example (**??**).

(2)

Chukchi (Kozinsky, Nedjalkov, & Polinskaja, 1988)
a. Qənwer ʔettʔ-e rələpʔen-nin gutil-ən. finally dog-erg broke-aor.3sg/3sg ether-abs
'Finally the dog broke the tether.'
b. Qənwer ʔettʔ-ən **ine**=nləpʔet=gʔi (gutilg-e).
finally dog-abs ap-broke-aor.3sg (tether-instr)
"Finally the dog broke the tether."

In (**??**), we see a transitive, ergative clause. The subject is in the ergative case, and the direct object in the absolutive, with the verb showing agreement with both the subject and object. In (**??**), we have the antipassive clause. The subject in the absolutive case, with the object in an oblique case and agreement with the subject only.[2]

[2] 2. There is also a use of the antipassive morpheme in Chukchi which has been dubbed the 'spurious antipassive' by (Hale, 2002) and discussed in (Bobaljik & Branigan, 2006) and (Bobaljik,

To explain this 'applicative' use of the antipassive morpheme, I propose a different analysis. Rather than considering that *–ine* has both an antipassive and applicative use, I propose that *–ine* is an antipassive marker only. In those cases where we see an applicative use of *–ine*, we have the antipassive use of the suffix, with the antipassive feeding the appearance of a null applicative.

The explanation for the presence of the antipassive morpheme relies on an analysis of the low applicative construction given in (Pylkkänen, 2008), as well as an analysis of the antipassive construction given in (Basilico, 2012, 2017). In short, **Pyllkänen2008** requires that the low applicative merge with a verb that introduces an internal argument. **Basilico2017**, building on Borer, 2005, Lohndal, 2014, Acedo-Matellán & Mateau, 2014 and others, considers that verbs do not necessarily introduce any of their arguments. For **Basilico2017**, the antipassive morpheme, rather than being a detransitivizing morpheme, is one way for an internal argument to be introduced. Thus, the antipassive morpheme merges with the verb that has no arguments and creates a verb that introduces an internal argument. In this way, the verb becomes the right type to serve as an argument of the applicative.

I turn to an overview of these two proposals next.

## 2 The low applicative and arguments within the VP

**Pylkkänen2008** extends **Kratzer1996**'s (**Kratzer1996**) analysis of external arguments to certain kinds of applied arguments. Her 'high applicatives' are those extra arguments which can occur in the absence of a direct object. In these cases, the applied argument is introduced by a separate syntactic head, like the external argument in **Kratzer1996**'s (**Kratzer1996**) analysis, and introduces a thematic role predicate λxλe[benefactive(x,e)], notated as bene here. It integrates semantically by event identification (see figure one).

ApplP λe[feed(the dog,e) & benefactive(Mittie,e)]
3
DP Appl′ λxλe[feed(the dog,e) & benefactive(x,e)
Mittie 3

2007). Here, we see the antipassive morpheme as a kind of 'inverse agreement', when "a second or third person participant acts upon a first person participant" (Polinsky, 2016). These examples are from **Polinsky2016**.(i) ə-nan ɣəm ine-ɬʔu-ɣʔi. 3sg.erg 1sg.abs ap-see-aor.3sg S/he saw me.(ii) ɣət-nan muri ɬʔu-tku-∅ 2sg.erg 1sg.abs see-ap-aor.2sgBobaljik and Branigan attempt to unify this use of the antipassive morpheme with its more general use. However, I follow **Polinsky2016** and treat these as agreement markers and not involved with argument addition or elimination/demotion. I do not treat these constructions in this work.

Appl VP λe[feed(the dog,e)]
bene 3
DP V´ λxλe[feed(x,e)]
the dog g
V λxλe[feed(x,e)]
feed
Figure One: High Applicative

These 'high applicatives' are contrasted to 'low applicatives' which are extra arguments that occur only in the presence of a direct object. In these cases, the applicative head combines with both noun phrases, the direct object and then the applied (indirect) object before the entire applicative structure merges with the verb. The semantic representation of the applicative head in this case is more complex: λx.λy.λf.λe. f(e,x) & theme(e, x) & to-the-possession (x,y). The verb in this case must introduce an argument. I give the structure in figure two with the corresponding semantics given below the structure.

VP
3
V ApplP
buy 3
DP Appl´
John 3
Appl DP
the book
[ApplP]] λf.λe. f(e,the book) & theme(e, the book) & to-the-possession (the book, John).
[[buy]] *λx.λe.*buying(e) & theme(e,x)
[[VP]] λe.[buying(e) & theme(e, the book) & to-the-possession (the book, John)]
Figure Two: Low Applicative

The agent will be added by a separate Voice head and the thematic role predicate and argument will be integrated into the semantic representation through event identification (not shown).

The phenomenon of low applicatives interacts with the notion of transitivity and the introduction of internal arguments. For **Pyllkänen2008**, low applicatives are possible only with transitive verbs, since they involve a relation between two DPs.

## 3 The antipassive as an argument introducer

Though the antipassive appears to be an intransitivization process, Basilico (2012, 2017) proposes, based in part on asymmetries in the appearance of antipassive morphemes in Eskimo-Aleut languages, that the antipassive morpheme actually adds an argument rather than demotes or saturates an argument. In these languages, core transitive, result verbs (CTV) (as discussed first in (B. Levin, 1999), Rappaport Hovav & Levin, 1999 and subsequent work) such as 'break' and 'open' always occur with an overt antipassive morpheme in an antipassive construction.

(3)

Inuktitut (**Spreng2012**)
a. Piita-up naalautiq surak-taa
Peter-ERG radio.ABS break-PART.3SG/3SG
'Peter broke the radio.'
b. Piita surak-**si**-juq (naalauti-mik).
Peter.ABS break-AP-PART.3SG (radio-MIK)
'Peter is breaking the radio.'
c. *Piita surak-tuq (naalauti-mik).
Peter.ABS break-PART.3SG radio-MIK
'Peter broke the radio.'

Non-core transitive manner verbs (NCTV) such as 'eat' and 'drink' appear in an antipassive frame with no special morphology.

(4)

Inuktitut (Spreng, 2012)
a. anquti niri-vuq (niqi-mik).
man.ABS eat-IND.3SG meat-MIK
The man is eating meat.
b. anguti-up niqi niri-vaa
man-ERG meat.ABS eat-IND.3SG/3SG
The man is eating meat.

**Basilico2017** proposes that core transitive verbs do no introduce their internal argument, while non-core transitive verbs do. In this way, he builds from Rappaport-Hovav and **Levin1999**'s (**Levin1999**) idea that the internal argument

of a NCTV is introduced by the verbal root in a monoeventive event structure template, while the internal argument of a CTV is a 'structure' argument of a bieventive event structure template, as seen in (??) and (??) below.

(5)

[ x act$_{<manner>}$ y]

(6)

[[ x act$_{<manner>}$] cause [ become [ y <state> ]]]

In (??), the 'y' participant is licensed by the root component that fills in the <manner> element of the monoeventive activity template. In (??), the y component is actually part of the CTV change of state template itself and so it must be present whenever there is a change of state verb.

In the Eskimo language Iñupiak, (Nagai, 2006) describes the difference between two seemingly synonymous verbs which both mean 'wet to tan': *aŋula-*, which is an agentive verb and *imaq-*, which is patientive. Agentive verbs do not occur with an antipassive morpheme and in their single argument intransitive frame appear with the external argument only as the subject. Patientive verbs must occur with an antipassive morpheme and in their single argument intransitive frame appear with their internal argument as the subject; in this frame they are unaccusative. With respect to the agentive *aŋula-*

[t]he focus, however, is not on the patient's changing state from not being wet to being wet, but on the agent's process of wetting the patient. Thus, even though it implies the agent's changing the state of the patient, the focus is not on the patient's change of state, but on the process of the agent's being engaged in the activity of wetting the patient. On the other hand, imaq- "wet to tan" focuses on the patient's changing state from not being wet to being wet.

This discussion of the difference between these two verbs recalls the manner/result distinction, in which the agentive verb focuses on what the agent does in carrying out the process (manner), while the patientive focuses on the result of the process. CTVs are typically result verbs, while manner verbs are NCTVs.

In the framework adopted here, a CTV is a predicate of events only, while a NCTV is a relation between an event and an entity. A CTV in Eskimo-Aleut would be a patientive, result verb while a NCTV would be agentive, manner verb.

'niri': $\lambda x \lambda e$[eat(e,x)]

VP $\lambda e$[eat(e, meat)]

3
□x□e[eat(e,x)] V NPmik
niri niqi-mik
Figure Three: NCTV syntax
'surak': □e[break(e)]
Trans λe[theme(e, radio) & break(e)]
3
NP Trans´ □x□e[theme(e,x) & break(e)]
naalautiq3
□x□e[theme(e,x)] Trans VP
theme g
V
surak λe[break(e)]
Figure Four: CTV syntax
'surak-si' □x□e[break(e,x)]
VP λe[theme(e,radio) & break(e)]
3
□x□e[theme(e,x) & break(e)] V NPmik
3naalauti-mik
V ap
λe[break(e)] surak si □x□e[theme(e,x)]
Figure Five: CTV+antipassive syntax

As can be seen in the above, the CTV in the transitive frame (figure four) has the internal argument introduced outside the VP by separate head, which I notate as Trans, which is the head of a Transitive Phrase. It is the counterpart of Voice for the internal argument. This Trans head introduces a thematic role predicate (the theme thematic role) in its head. This thematic role predicate is integrated semantically through event identification. In this way, the internal argument is introduced very much like an external argument or a high applicative argument (Johns & Kučerová, 2017). In the antipassive frame for the CTV (figure five), the antipassive morpheme, like Trans, introduces the internal theme argument through a thematic role predicate, but in this case it introduces the argument within the VP. In this way, the antipassive syntax for the CTV in terms of introducing the argument mirrors that of the NCTV, which lexically introduces its argument within the VP

To these representations, we add a Voice head which introduces an external argument thematic role predicate, here agent. In the transitive, a transitive Voice head assigns ergative case to its subject, with Tense assigning absolutive case to

the direct object. In the antipassive, an intransitive Voice head assigns no case, with the external argument assigned case from Tense.

TP
3
T VoiceP λe[agent(e, Peter) &theme(e,x) & break(e)]
3
NP Voice´ λyλe[agent(e, y) &theme(e,x) & break(e)]
Piita-up 3
λxλe[agent(e,x)] Voice TransP λe[theme(e, radio) & break(e)]
agent 3
NP Trans´ λxλe[theme(e,x) & break(e)]
naalautiq3
λxλe[theme(e,x)] Trans VP
theme g
λe[break(e)] V
Figure Six: CTV with external argument

TP
3
T VoiceP λe[agent(e, Peter) &theme(e,x) & break(e)]
3
NP Voice´ λyλe[agent(e, y) &theme(e,x) & break(e)]
Piita 3
λxλe[agent(e,x)] Voice VP λe[theme(e,NP) & break(e)]
Agent3
λxλe[theme(e,x) & break(e)] V NPmik
3naalauti-mik
λe[break(e)] V ap λxλe[theme(e,x)]
surak si
Figure Seven: NCTV syntax with external argument

## 4 The analysis: Putting it all together

**Pyllkänen2008** requires that a low applicative phrase merge with a verb that introduces its internal argument. If we consider that the verb itself does not introduce an argument, then it is not possible for a verb to be the argument for ApplP. **Basilico2017** considers that an antipassive morpheme can step in to turn the verb into one that does introduce its argument. Since the verb is now of the right sematic type, the applicative phrase can now merge with the verb. In this way, we

explain why the antipassive morpheme appears in this applicative construction; the antipassive feeds the applicative by supplying the internal argument.

Moving to a concrete example, we can give an analysis for the argument rearrangement seen in the example with the verb 'hang' above in (**??**). In the basic form, the verb introduces no internal argument; the theme argument is introduced by a separate v head outside of the VP, as in figure eight.

TransP
3
NP Trans´
ewirʔ-ə-t 3
Trans VP
theme g
V
jəme

λe[theme(e, clothes) & hang up(e)]

Figure Eight: Syntax for transitive 'hang'

With the 'applicative' form, we can think of the 'door' coming to 'have' the cloth. By hypothesis, the verb *jəme* 'hang' has no arguments. The antipassive morpheme *ine-* combines with the verb to add an argument position to the verb. In this way, the verb becomes the right type to semantically compose with ApplP. The null applicative morpheme merges first with the theme/possessee *meniɣ* 'cloth' and then with the possessor *tətəl* 'door'. The whole ApplP then merges with the verb that is of the right semantic type after the merger of the antipassive morpheme. Note that the introduction of the Trans head comes too late to supply the internal argument. The Appl head must combine with a verb with an argument, and though the Trans head does supply a theme argument, creating a structure of the right semantic type, the phrase formed is not the right syntactic type for the ApplP because it creates a Trans functional phrase rather than a V.

Let me walk through a derivation here. First, the verb combines with the antipassive morpheme to introduce an internal argument.

(7)

[$_V$ ena jme] λxλe[hang(e) & theme(e, x)]

The applicative head merges with the direct object and then with the indirect object to create the applicative phrase.

(8)

[$_{\text{ApplP}}$ [tətəl] [$_{\text{Appl}'}$ Appl [$_{\text{NP}}$ meniɣ-e]] λfλe f(e, the cloth) &theme(e, the cloth) & to-the-po
Finally, the ApplP formed in (**??**) merges with the V from (**??**) to create the VP. The antipassive morpheme has adjoined to the V, allowing the V to project.

(9)

[$_{\text{VP}}$ [$_{\text{V}}$ ena jme] [$_{\text{ApplP}}$ [tətəl] [$_{\text{Appl}'}$ Appl [$_{\text{NP}}$ meniɣ-e]]]
λe[hang(e) & theme(e, cloth) & to-the-possession-of(door, cloth)]
VP
wo
V ApplP
3 3
ena V NP Appl´
jme tətəl 3
Appl NP
meniɣ-e
Figure Nine: Applicative syntax.

Thus, the applicative use of the antipassive morpheme is not an applicative use per se; antipassive formation is necessary to feed applicative formation. Here, the applicative morpheme is null. If this analysis is on the right track, as noted in Cuervo (this volume), a defining feature of an applicative morpheme need not be its overt exponence. Furthermore, note that in this analysis of applicatives, as with Pyllkänen's original (**??**) analysis, the Appl head selects not only for a DP as a complement but the entire ApplP selects for a transitive verb. Thus, in terms of Cuervo's (this volume) typology for applicatives, these Appl heads that have non-verbal complements (in this case a NP or DP) can only appear within a clause that has a transitive verb. But the point in the configuration at which the internal argument is important. The analysis here posits two positions for the internal argument, one within the VP and one external to the VP within a functional projection. Thus, as in both Cuervo's (this volume) and Weschler's (this volume) analyses, the point in the structure at which the applicative is introduced is important, especially in those theories which introduce arguments syntactically.

### 4.1 Not a case of 'raising'

Support for the idea that these structures involves applicative formation and not a syntactic rearrangement of noun phrases as a result of movement comes from meaning differences in antipassive sentences in which there is 'locative' advancement (Polinskaja & Nedjalkov, 1987). I argue that these cases of advancement of the locative argument to absolutive position in the context of the antipassive is another instance in which we see antipassivization necessary for the addition of an applied argument. Consider the following.

(**??**) Chukchi (**PolinskajaNedjalkov1987**)
a. ətləg-e mətqəmət (kawkaw-ək) kili-nen.
father-ERG butter.ABS (bread-LOC) spread on-3SG/3SG(AOR)
b. ətləg-ən mətq-e (kawkaw-ək) ena-rkele-g'e.
father-ABS butter-INSTR (bread-LOC) AP-spread on-3SG(AOR)
c. ətləg-ə mətq-e kawkaw ena-rkele-g'e.
father-ERG butter-INSTR bread.ABS AP-spread on-3SG(AOR)
"The father spread butter on the bread."

In (a) we have the ergative, transitive clause, and in (b) we have the antipassive variant. The (c) example shows the placement of the location 'bread' as the absolutive argument but the verb still contains the antipassive morpheme. A second example is from Kodzinsky, **NedjalkovPolinskaja1988**.

(10)

Chukchi (Kozinsky, **NedjalkovPolinskaja1988**)
a. ətləg-e təkeč?-ən utkuč?-ək pela-nen.
father-ERG bait-ABS trap-LOC leave-3SG/3SG
b. ətləg-en təkeč?-a utkuč?-ək ena-pela-g?e.
father-ABS bait-INS trap-LOC AP-leave-3SG
c. ətləg-e təkeč?-a utkuč?-ən ena-pela-nen.
father-ERG bait-INS trap-ABS AP-leave-3SG/3SG
"The father left the bait by the trap."

In the (a) example, we have a transitive, ergative structure with the noun phrase *təkeč?-ən* 'bait' as the absolutive (affixed with - *ən*) and the noun phrase *utkuč?-ək* 'trap' with a locative case marker (-*ək*) attached. The (b) example gives the antipassive counterpart of the (a) example, where the noun phrase *təkeč?-a* 'bait' is now in the instrumental case (affixed with –*a*) and the verb is affixed with the antipassive *ena-* morpheme. The subject is in the absolutive case and the verb

shows agreement only with the subject. What is interesting is the (c) example. Here we have what looks like an antipassive clause; the verb is affixed with the antipassive morpheme *ena-* and the noun phrase 'the bait' is in the instrumental case—exactly as in (b). However, the location argument *utkuč?-ən* 'trap' is not affixed with the locative market but appears in absolutive case, and the verb shows both subject and object agreement, agreeing with the absolutive 'trap'. We have a transitive clause here, with *ətləg-e* 'the father' as the subject and *utkuč?-ən* 'the trap' as the absolutive object. The 'original' direct object still appears as a 'demoted' object, and the verb still appears with antipassive morphology.

We might at first take the raising of the locative element to be movement of the locative element internal to the VP and adjoined to some other phrase, where it can receive absolutive case. However, there is a meaning difference between the (a) and (b) examples as contrasted to the (c) example in (**??**). Kozinsky, **NedjalkovPolinskaja1988** state that (c) means something quite different from (a), and derive this difference from a pragmatic suprapropositional meaning (SPM) difference between the two clauses. Kozinsky, Nedjalkov and **Polinskaja1988** give the SPM for the (a) example as "the bait has changed its location," while that for (c) is not merely about a change in location but "implies that some bait is put in the trap which is, thus, ready for operation". They note that the two sentences have different truth conditions; they state that "the former [example (**??**)] can be used if the trap and the bait are merely stockpiled in one and the same place for the time being, while the latter [example (**??**)] can by no means denote such a situation.".

While (a) and (c) are not truth conditionally equivalent, (b) and (a) are. Though Kozinsky, **NedjalkovPolinskaja1988** derive this denotational difference from a pragmatic difference, it seems unlikely that a pragmatic difference can lead to different denotational semantics. We need a representation in which we can explain why (a) and (c) are denotationally different.

I argue here that the promotion of the locative is a case of a low applicative. Thus, just like above, here the 'promoted' object is in the specifier of a low applicative. The antipassive morphology is needed so there can be an argument position within the VP.

In the basic transitive case, we have a change of location structure. The location argument is projected within the VP, and the theme element, in this case 'the bait', appears within a v[theme] head. The structure of the verb phrase will be as in figure ten, with its semantics shown beneath.

TransP

3

NP Trans´
təkeč?-ən3
Trans VP
3
V NPloc
pela utkuč?-ək
λe[leave(e) & loc(e, at trap) & theme(e, bait)]
Figure Ten: Transitive syntax and semantics

We can antipassivize this structure. The morpheme *ine-* introduces the theme argument within the verb phrase. This structure is denotationally synonymous with (**??**) above because there is no difference in the roles that the participants play in the event. The only difference is where and how the theme argument is introduced. Figure eleven gives the antipassive syntax.

VP
3
NP V
təkeč?-a3
V NPloc
3utkuč?-ək
ena V
pela
λe[leave(e, at trap) & und(e, bait)]
Figure Eleven: Antipassive syntax and semantics

In the case of the promotion of the locative NP to absolutive, here I argue that the structure is different; there is a low applicative morpheme introduced and 'the trap' appears in the specifier of this applicative morpheme. I show the syntax in figure twelve. This applicative morpheme introduces a possession relation between 'the trap' and 'the bait'; thus, 'the trap' has 'the bait'. It is this difference—the presence of the applicative morpheme that introduces a possessive applicative relation—that accounts for the denotational difference between the (a)/(b) cases and the (c) case. In the (c) case, the trap must come to have the bait at the end of the event, while in the (a)/(b) case we only have a change of location structure so 'the trap' and 'the bait' need only be spatially near each other at the end of the event. Perhaps a better translation for the 'locative advancement' sentence is 'The father left the trap with bait'.

VP
wo
V ApplP

3 3
ena V NP Appl´
pela utkuč?-ən3
Appl NP
təkeč?-a
λe [leave(e) & theme(e, bait) & to-the-possession-of (trap, bait)]
Figure Twelve: Applicative syntax and semantics

The notion that these examples of locative advancement involve an applicative element is also supported by impossibility of incorporating the locative nominal into the verb.

(11)

Chukchi (Kodzinsky, **NedjalkovPolinskaja1988**)
a. *ətləg-e təkeč?-ən utkuč?ə-pela-nen.
father-ERG bait-ABS trap-leave-3SG/3SG
b. *ətləg-en təkeč?-a utkuč?ə-pela-g?e
father-ABS bait-INST trap-leave-3SG
"The father left the bait by the trap."

This lack of incorporation is somewhat surprising, since absolutive arguments usually can incorporate. But if we take the locative argument to be an applicative argument, then we can reduce the lack of incorporation to another well-known restriction in noun incorporation: goal/recipient/possessor (indirect object) arguments do not incorporate (Baker, 1988).

Another reason to consider that antipassivization introduces an argument comes from cases of antipassivization feeding 'dative shift'. The following example shows 'dative shift' with a change of state verb.

(12)

Chukchi (Spencer, 1995)
a. ətləg-e akka-gtə qora-ŋə təm-nen.
father-erg son-dat deer-abs kill-3sg.s/3sg.o
b. ətləg-e ekək ena-nmə-nen qora-ta.
father-erg son.abs ap-kill-3sg.s/3sg.o deer-instr
"The father killed a reindeer for the son."

What is interesting in this case is that a change of state verb such as 'kill' appears to undergo the dative (really the benefactive) alternation; however in

this case, as the (b) example shows, the verb must first be antipassivized before the benefactive argument can appear as the absolutive. Verbs of change of state such as 'kill' in English do not undergo this alternation, while verbs of creation can.

(13)

English
a. The father killed a reindeer for his son.
b. *The father killed his son a reindeer.
c. The father built a house for his son.
d. The father built his son a house.

If a core transitive result verb such as 'kill' does not introduce its argument, then the verb is not the right type to serve as an argument of ApplP. However, a creation verb such as 'build' is a noncore transitive verb and does introduce its argument, so it can serve as the input to applicativization.[3] Thus, we explain the difference in English above. But in Chukchi, it is possible for this core transitive result verb to undergo the benefactive alternation, but only when the antipassive morpheme is present. So we see again that the addition of an applied object, in this case the benefactive, requires the antipassive. The verb 'kill' does not introduce an argument at the VP level, so the antipassive morpheme is necessary to introduce one. Though Trans does eventually introduce an internal argument, it is outside of the VP domain so it is merged too late for the ApplP, which must merge with a verb.[4]This contrast with the oblique marked location argument shows that the antipassive does not involve the loss of absolutive case (as in **Baker1988**), since absolutive is available for the promoted argument. Thus, it is unlikely that the antipassive morpheme is the head of a special external argument introducing v head that does not assign case (T. Levin, 2015), or blocks T from assigning case, thus forcing an oblique case for the undergoer argument.[5]

[3] 3. Also, verbs of creation are agentive verbs in Eskimo-Aleut, as in this example from Central Alaskan Yup'ik (Miyaoka, 2012), which is expected if creation verbs introduce their argument.(i)kenir-tuq cook-ind.3sg She is cooking something.

[4] 4. **Spencer1995** states that 'dative shift' has not been reported to occur with intransitive verbs. Thus, it is unlikely that the phenomenon illustrated here in a high applicative, since high applicatives can occur with intransitive verbs.

[5] 5. We could analyze the promotion of the location argument to absolutive as a case of an additional high applicative element, perhaps assigned some 'affected' role. The denotational difference would come from this 'affected' role. However, this analysis does not gain us much over the analysis presented above: there are still two 'object' positions, one within the VP

### 4.2 Not just for case reasons

One final note concerns whether or not the addition of the antipassive argument with the applicative is necessary for argument structure reasons or simply case reasons. One potential alternative explanation for the presence of the antipassive is that there are not enough structural case positions for all the arguments. We might suggest that the promoted locative argument 'steals' absolutive case from the undergoer argument, so there is no structural case for the undergoer argument. Antipassivization is then required in order to assign case to the undergoer if the location receives the only absolutive.

For **Baker1988**, antipassivization absorbs the case assigning ability of the verb, so applicatives should be impossible with antipassivized verbs. He gives examples from Tzotzil which motivate this claim.

(14)

Tzotzil (Aissen, 1983)
a. č-i-ʔak'-van.
asp-a1-give-ap
"I am giving [someone]." (i.e. my daughter, in marriage)
b. *taš-Ø-k-ak'-van-be li Šune.
asp-A3-E1-give-ap-to the Šun
"I am giving [someone] to Šun." (my daughter, in marriage)
Here, the antipassive suffix is *–van* and the applied suffix is *–be*.

So there is some cross-linguistic difference here in the ability of antipassives to have applied arguments. An explanation for this difference comes from the different types of antipassive markers. In this case, the antipassive marker in Tzotzil, unlike *ine-* Chukchi, is not an argument introducer but an intransitivizer. Note that unlike the antipassive in Chukchi, these examples from Tzotzil are absolutely intransitive; **Aissen1993** states that "verbs suffixed with *–van* have a reading like 'to do x to y or with respect to y' where y must be human, either a nonspecific human or a discourse referent. In either case, *verbs suffixed with –van never occur with an overt object*" [italics mine].

(15)

and there is still an applicative head. The analysis presented in the text is superior, though, in the sense that elements that generally are assigned only an 'affected' role tend to be animate and/or sentient (Bosse, Bruening, & Yamada, 2012).

Tzotzil (**Aissen1983**)
a. Muk' bu š-i-mil-van.
never asp-a1-kill-van
"I never killed anyone."
b. … š-k'-ot sibtas-van-uk-Ø.
…asp-come frighten-van-uk-a3
he came to frighten [people].
c. ʔAk'-b-at-Ø s-veʔel, ʔi- Ø-veʔ lek.. Ta ša
give-be-pass-a3 his-meal asp-a3-eat well asp now
la š-Ø-mey-van, ta ša la š-Ø-buɛ'- van
pt asp-a3-embrace-van asp now pt asp-A3-kiss-van
ti kriarailetike.
the maids
"He was given his meal, he ate well. The maids embraced [him] and kissed [him]."

These 'absolutely intransitive' verbs do not introduce a syntactic argument, not even an internal argument marked with oblique case or a null syntactic one. Though their lexical-conceptual meaning has two participants, there is no argument in the syntax; rules of construal based on pragmatics and the lexical-conceptual meaning of the verb derive the interpretation of a second event participant. If there is no internal argument introduced, then there can be no low applicative formation.

An alternative to this analysis considers that this antipassive marker does introduce an argument, but that this argument comes existentially closed and thus there is no open argument position. The verb, then, is still not of the right type to combine with the ApplP, because the internal argument position has been saturated. In this way, both types of antipassive markers introduce arguments, with the difference attributed to whether or not that argument position is open or closed. Furthermore, we can then make a parallel with the passive construction, as some languages allow the external argument to be expressed as an oblique and some do not. However, these 'missing objects' in this absolutely intransitive constructions are not interpreted existentially, but either as a discourse referent or generically. In fact, antipassive clauses with *-ine* in Chukchi and and *-si* in Inuit with no overt oblique argument can be interpreted existentially, unlike the examples from Tzotzil given above.

In addition, another alternative is to consider that the antipassive morpheme does suppress absolutive case, but the difference between Chukchi and Tzotzil is that the Appl morpheme itself brings along absolutive case in Chukchi but not

Tzotzil. However, this alternative is unlikely since even in a simple antipassive construction in Tzotzil with no applicative, the internal argument is not allowed. Thus, the internal argument in Tzotzil is never possible.[6]

Thus, we see here how considering whether or not an antipassive morpheme introduces an argument can explain some of the cross-linguistic variation seen in applicativization and antipassivization. [7]

## 5 Conclusion

In some languages, antipassivization is necessary for applicativization. Following Basilico (2012, 2017), I argue that the antipassive morpheme can introduce an internal argument. This argument introduction allows for low applicative formation, given **Pyllkänen2008**'s (**Pyllkänen2008**) analysis that low applicatives require transitive verbs. In those cases where antipassivization does not support applicativization, these antipassive morphemes do not introduce an internal argument. These latter constructions allow no oblique internal argument to be present in the syntax. Case reasons alone cannot explain these facts.

By upending the standard notion that antipassivization always involves argument elimination or demotion, but can involve argument addition, this study accounts for a seemingly contradictory cross-linguistic relationship between antipassivization and applicativization.

We have further support for the view that internal arguments can be introduced in the syntax. In addition, this work shows that there are two different positions for the introduction of the internal argument, one internal to the VP and one external to the VP. This analysis asks us to revisit notions such as **Baker1988**'s (**Baker1988**) Uniformity of Thematic Assignment Hypothesis and well as the syntactic characterization of the unaccusative and unergative distinction.

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[6] 6. I thank an anonymous review for both alternatives suggested here.

[7] 7. A prediction of this approach to the antipassive is that verbs which introduce their arguments and thus do not appear with overt antipassive morphology in the antipassive construction (such as agentive verbs in Eskimo-Aleut) would not need antipassive morphology with a low applicative. Unfortunately, I do not have such data available to me which shows that this prediction is confirmed. Thank you to both reviewers for pointing out this prediction to me.

# Chapter 11

# The Lexical Underspecification of Bantu Causatives and Applicatives

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**(Independent researcher)**

Abstract. This paper presents original evidence for an additional merge location and semantic interpretation of Bantu applicatives, drawing on complex multiply applicativized and causativized constructions for empirical support. The paper also identifies and discusses challenging data from Bantu causatives. Previous analyses of causative and applicative constructions in the world's languages have enumerated different kinds of causative and applicative heads, stored separately in the lexicon, each with their own particular selectional requirements.

As the number of attested structural positions, potential compliments, and semantic interpretations for these heads grow in the literature, however, the model bloats and becomes less compelling. I ultimately adopt recent analysis from **WoodMarantz2017** and assert that a single underspecified argument introducer is sufficient to account for the Bantu data I present. In order to accommodate the new theory of argument introduction, I also propose a new, more semantically-oriented, model of causative compliment selection.

## 1 Introduction

For my analysis, I assume that even in languages without explicit applicative morphology, applicative argument-introducing heads are responsible for the additional arguments in dative/ditransitive/double-object constructions. Therefore,

while this paper occurs in the applicative section of a volume on dative structures, my analysis will not make use of, or rely on, this distinction.

In this paper I argue that evidence from Bantu supports a model with fewer argument introducers available in the lexicon than previous accounts (most prominently, **Pylkkänen2008**) have suggested. My analysis makes heavy use of Wood & **Marantz2017**'s (**Marantz2017**) work, which argues similarly for a radically reduced inventory of argument-introducing heads.

In §**??**, I present challenging data from Bantu causatives. Ultimately, I argue that causatives are underspecified for categorial compliment selection, and I propose an original treatment of cross-linguistic variation in causative constructions.

In §**??**, I structure my analysis around the assumption that all applicatives are underlyingly the same as one another, as well as all other non-core argument introducers. I demonstrate that the same applicative surface structure often corresponds to multiple underlying structures, and I also present original evidence for an additional applicative merge-location in Shona.

In §**??**, I acknowledge a few sticking points in the analysis, speculate about some unanswered questions, and identify fruitful areas for further research on the topics and issues plumbed in this paper.

## 2 Causatives

### 2.1 Data from Bantu

Consider the following:
(Shona)

| | | | | |
|---|---|---|---|---|
| a. | *Tinotenda* | *a-nyur-a* | | |
| | 1.Tinotenda | SM1-drown-FV | | |
| | 'Tinotenda drowned.' | | | |
| b. | **Tinotenda* | *a-nyur-a* | *ne-kuda* | |
| | 1.Tinotenda | SM1-drown-FV | with-love | |
| | 'Tinotenda drowned intentionally.' | | | |
| c. | *Tinotenda* | *a-nyur-is-a* | *Tatenda* | *ne-kuda* |
| | 1.Tinotenda | SM1-drown-CAUS-FV | 1.Tatenda | with-love |
| | 'Tinotenda drowned Tatenda intentionally.' | | | |

- (1)– (Shona)

| | | | | |
|---|---|---|---|---|
| a. | *Tinotenda* | *a-ka-yimb-a* | *ne-kuda* | |
| | 1.Tinotenda | SM1-PST-sing-FV | with-love | |
| | 'Tinotenda sang intentionally.' | | | |
| b. | *Tinotenda* | *a-ka-yimb-is-a* | *Tatenda* | *ne-kuda* |
| | 1.Tinotenda | SM1-PST-sing-CAUS-FV | 1.Tatenda | with-love |
| | i.'Tinotenda intentionally made Tatenda sing.' | | | |
| | ii. *'Tinotenda made Tatenda intentionally sing.' | | | |

In causativization appears to "add" an Agent to a structure without one.[1] Superficially,(??) looks the same. In (??), however, only the Causer is an Agent, which would imply that causativization in one case entails the "addition" of an Agent and in another, both the "addition" and "subtraction" of an Agent.

It is difficult to ascribe a single syntactic function to Shona causatives, because the differences exhibited between causative constructions and their non-causative counterparts are not consistent. **Pylkkänen2008** grapples with the same conundrum, but cross-linguistically. Her typological proposal distinguishes based on two variables, merge height and a property she calls VOICE-BUNDLING. Causatives either select as their complement VoiceP (PHASE-SELECTING), vP (VERB-SELECTING).

[1] In describing causative alternations, it is easy to lean on metaphor that conflates theory. Within the theoretical framework of this paper, it is not considered to be the case that causative constructions are formed by applying a transformational causative process to an already generated non-causative sentence. When I discuss what a causative head "adds to" or "subtracts from" a structure, I'm not referring to the cognitive process of causativization as it occurs in a speaker's mind when their native grammar generates a causative construction, but to the comparison of two already generated sentences in an alternation. For literal descriptions of grammatical processes, I use words like "introduce" or "merge".

or the verb root √ (ROOT-SELECTING). Additionally, causatives are either of the Voice-bundling type, meaning that they merge with Voice to create a single Agent-introducing head, or they are of the Non-Voice-bundling type, meaning that they merge as a free head in the structure and are not syntactically bound to Voice.

For Pylkkänen (and for my analysis), causatives are not argument introducers. They introduce a causative meaning and a syntactic relationship between an Agent (introduced by Voice) and the event conveyed by the verb phrase. Pylkkänen makes this distinction because some languages allow causative constructions without an overt Causer role. In languages with the Voice-bundling type of causative, however, this split is all but irrelevant because Voice-bundled causatives constitute a single Causer-introducing head.

Because verb-selecting causatives merge below Voice, and Voice is the only head that introduces Agents, the subject is the only agentive argument. Phase-selecting causatives are merged above Voice and allow for two agentive arguments. Agent-oriented modification of the Causee diagnoses the merge location of the causative. The possible interpretations in (**??**) show that Shona causative constructions have only one agentive argument and therefore do not merge above Voice. In this respect, Shona is unlike Venda, which according to Pylkkänen has phase-selecting causatives:

a. (Venda (**Pylkkänen2008**))

| *Muuhambadz-* | *reng-is-a* | *Katonga* | *modoro* | *nga* | *dzangalelo* |
|---|---|---|---|---|---|
| 1.salesman | SM1-buy-CAUS-FV | 1.Katonga | 9.car | with | 10.enthusiasm |
| i. 'The salesman eagerly made Katonga buy the car.' | | | | | |
| ii. 'The salesman made Katonga eagerly buy the car.' | | | | | |

In (**??**) 'eagerly' can modify either 'the salesman' or 'Katonga', therefore indicating that in Venda causatives merge above Voice.

Pylkkänen's typology offers an explanation for the difference between (**??**) and (**??**), but it leaves an important question unanswered: what head introduces the non-agentive Causee when Voice introduces Agents exclusively? Causative constructions with non-agentive Causees are cross-linguistically common (**Kulikov2001**; **Kittilä2013**), so this gap in the theory is not insignificant. Pylkkänen acknowledges this shortfall but does not seek to address it in her anlaysis (2008:107). I do seek to address it, and I propose a solution in §**??**

While this structural puzzle does not apply to languages with phase-selecting causatives, like Venda, such languages do pose a related problem:

i. (Venda **Pylkkänen2008**)

| | | | |
|---|---|---|---|
| a. | *Mahada* | *o-nok-a* | |
| | 6. snow | SM1-melt-FV | |
| | 'The snow melted.' | | |
| b. | *Mukasa* | *o-nok-is-a* | *mahada* |
| | 1.Mukasa | SM1-melt-CAUS-FV | 6.snow |
| | 'Mukasa melted the snow.' | | |

Venda's phase-selecting causative supposedly needs to merge with Voice, but Voice is not present in the Agent-lacking unaccusative construction in (**??**).

The data in (**??**)-(**??**) shows that in both Venda and Shona causatives merge with more than one kind of compliment. Furthermore, flexible selectional requirements do not appear to be atypical of Bantu causatives:

xnumiv. (Bemba (**Givón1976**, 329: 18 via **Pylkkänen2008**: 115))

| | | | |
|---|---|---|---|
| *Naa-mu-fu-und-ishya* | *uku-laanda* | *iciBemba* | *ku-mufulo* |
| SM1-PST-OM1-learn-CAUS-FV | INF-speak | 4.Bemba | on-purpose |
| i. 'I, on purpose, made him learn to speak Bemba.' | | | |
| ii. *'I made him on purpose learn to speak Bemba.' | | | |

(Bemba (**Givón1969**))

| | | | |
|---|---|---|---|
| a. | *Aba-Bemba*<br>all-2.Bemba | *ba-ali-ful-a*<br>SM2-PROG-multiply-FV | |
| | 'The Bemba people multiplied.' | | |
| b. | *Leesa*<br>1.God | *a-a-fu-shy-a*<br>SM1-PST-multiply-CAUS-FV | *aba-Bemba*<br>all-2.Bemba |
| | 'God multiplied the Bemba people.' | | |

Bemba demonstrates the same variation in causative complement selection as Shona, embedding unaccusative structures, as well as non-agentive external arguments in unergative and transitive verb phrases.

**Kim2011** argues that in causativized transitive and unergative structures, non-agentive Causees are introduced by unpronounced high applicative heads (see §**??** for a detailed explanation of low and high APPL). This proposal is economical in that high applicative heads are available in the lexicon of Bantu languages (and Korean, from which Kim draws her evidence for the solution), they merge in between Voice and the verb, and they are associated with non-agentive arguments. Furthermore, though it is irrelevant to the Bantu data, Korean Causees are dative arguments, that is, they pattern with the distribution and morphological marking of applied/indirect objects, such as Benefactives and Recipients (**Kim2011**).[2]

In Pylkkänen's model of argument introduction, however, these various causative heads are all separate lexical items, specified each for a particular selectional requirement, and acquired by any given language from a universal inventory. Kim's proposal adds another head (two, if it also comes in Voice-bundling and Non-Voice-bundling varieties), an applicative-selecting causative, to both Pylkkä-

[2] Although Bantu does not have any morphological case marking, I want to take this opportunity to clarify this paper's stance on abstract Case in Bantu. I do not adopt recent analysis from **Diercks2012**, who argues that Bantu languages parametrically opt out of abstract Case-licensing en masse. I assume that the arguments in my Bantu data require abstract Case-licensing (see van der **Wal2015**, Sheehan & van der **Wal2016**, **Halpert2012**, and **Wechsler2014**, 2016 for evidence of Case features in Bantu). I am unable to devote the analysis in this paper towards identifying a licensing head for each argument, but I consider further research into *i**'s role in Case-licensing to be an important next step in assessing the utility and feasibility of this analysis.

nen's universal inventory, and to any given language with causative diversity similar to that of Shona and Bemba. The resulting system is congested, and I assert that the causative data in (??)-(??) provide an opportunity to simplify both the lexicons of the individual languages as well as the universal inventory.

Rather than an inventory of 6-8 distinct causative heads, from which many languages would have to select multiple items to account for their range of causative diversity, I argue that causative heads specified for a maximum compliment size offer a better solution. This proposal captures the fact that causativized unnaccusative structures occur both in languages with Voice-selecting and verb/applicative-selecting causatives, despite unaccusatives apparently contradicting selectional requirements for larger compliments. The notion that causatives have an upper-limit, rather than one categorial mandate is intuitive, and my analysis is reminiscent of a similar proposal, made by **Haspelmath2016** involving his concept of the "spontaneity scale".

§?? focuses on clarifying this paper's treatment of argument introducers, drawing heavily on **WoodMarantz2017**. Their proposal has serious implications for the mechanics involved in causative compliment selection, but by building on the notion of "compliment size" and formulating a more specific definition of that concept, I am able to better accommodate both the new theory and the data. I also use Wood & Marantz's analysis to make a proposal about the identity of the head responsible for introducing non-agentive Causees in constructions like those in (??) and (??).

## – 2.2 Wood & Marantz's *i**

**WoodMarantz2017** assert that all non-core arguments in any language are introduced by the same underspecified head, "*i**". They provide a distinct syntactic structure for Voice, low and high applicative heads, and prepositional heads, little p and big P, arguing that if syntax can account for the difference between these semantically varying instances of argument introduction, then it is redundant to have the lexicon store categorially separate heads.

Voice is simply the product of *i** merging with the verbalizing head little v and allowing for the introduction of an external agentive argument. Figure ??, adapted from their work (2017: 261), demonstrates this structure.

Figure 1: *Wood & Marantz's i* introducing an Agent*

While *i** **can** introduce an Agent following its merge with little v, it can also have an expletive interpretation and introduce non-agentive external arguments. The meaning of *i** can be computed in one of two ways at the syntax-semantics interface. Either *i** can imbue a relation implied by the semantics of its compliment between the argument it introduces and that compliment (non-expletive), or alternatively it can provide only a means for structural insertion, contributing no semantic "glue" to assist in integrating the argument it introduces (expletive).

The expletive interpretation is only available when an alternative strategy of semantic integration exists. The Japanese adversity causative, reproduced from Wood & Marantz in (??), demonstrates this point.

(Japanese (**WoodMarantz2017**: 274))

| | | |
|---|---|---|
| *Taroo-ga* | *Musuko-o* | *si-ase-ta* |
| Taro-NOM | Son-ACC | die-CAUS-PST |
| i. 'Taro caused his son to die.' | | |
| ii. 'Taro's son died on him.' | | |

The second possible meaning in (??), where *Taro* is negatively affected by his son's death (but crucially does not play any role in bringing it about), is the adversity causative interpretation. The event of Taro's son's death does not necessitate an agentive participant, so *i** need not necessarily (though it may, as in the first interpretation of (??)) relate an Agent to that event. As a non-agentive affectee, the DP *Taroo-ga* must be semantically integrated into the structure by some mechanism. Wood & Marantz argue that, in a structure similar to possessor-raising, *Taroo* is introduced by expletive *i**, but integrated by saturating a possessor role generated lower down in the DP *musuko-o*. This structure, adapted from a similar rendering in Wood & **Marantz2017**, is approximated in (??).

xnumiv. ()

The arrow in (??) represents the relationship between the possessor role and the argument *Taroo* that saturates it. This relationship is mandatory in the adversity causative interpretation. If *musuko* is implied to be another person's son, then *Taroo* has no semantic integration strategy besides merging as an agentive Causer role.

With *i** as the only introducer of non-core arguments, the answer to the previous question about the identity of the introducer responsible for non-agentive Causees is quite straightforward: *i** introduces all Causees, and I assume that

when Causees are non-agentive, *i** manifests its expletive interpretation. However, the question remains: why are Causees obligatorily non-agentive in languages like Shona and Bemba to begin with? Pylkkänen's typology no longer represents a viable explanation, because collapsing the entire canonical argument-introducing infrastructure into a single functional head removes much of the machinery used to describe causative diversity in previous analyses: Agents, high applicative arguments, and non-agentive Causees are rendered categorially equivalent in terms of compliment selection. This challenge is exemplified by the nearly identical structures for the Shona construction in (**??**) and the Venda construction in (**??**), provided sans adjunct in Figure **??**.

*Figure ??: The identical structures of Venda and Shona causatives*

The only difference between the structures in Figure **??** (besides the presence of a DO) is that the lower *i** in the Venda sentence, which introduces the Agent, *Katonga*, is non-expletive, and the lower *i** in the Shona sentence, which introduces the non-Agent, *Tatenda*, is expletive.

## – 2.3 Thematic weight

In §**??**, I argued that causatives have a maximum "compliment size" restriction, rather than a specific categorial mandate. I propose now that the "size" of a compliment is determined by what I call THEMATIC WEIGHT. Thematic weight is the sum of the thematic value of every (non-prepositional) nominal argument in a given constituent. I quantify the thematic value of an argument based on its semantic role, with Agents having the highest value and Themes (or Patients) having the lowest. Thematic hierarchies have been proposed by many authors (**Jackendoff1972**, **BellettiRizzi1988**, and **Grimshaw1990**, to name a few) and while these proposals differ in a number of ways, I follow the general consensus and assume the broad ordering in (**??**) is sufficient.

(**Agent>Experiencer/Goal>Theme/Patient**)

In §**??** I demonstrated that Causees can occur in any of the three thematic tiers in (**??**). In the Venda sentence in (**??**) the Causee is an Agent, in the Shona sentence in (**??**) the Causee is an Experiencer,[3] and in the Bemba sentence in (**??**) the Causee

[3] The traditional definition of "Experiencer" is not a perfect fit for non-agentive Causees of this variety, but because I want to avoid getting bogged down in the profligate lists of thematic relations available in the literature, and also because, for my analysis, the hierarchical tier is more important than the role itself, I consider the imprecision of this and other thematic labels to be acceptable compromises at the present.

is a Patient. For the purposes of calculating thematic weight, I assign numerical values to each of the thematic tiers from (??) in Table ??.

| Agent | Experiencer/Goal/Benefactive | Theme/Patient |
|---|---|---|
| 3 | 1 | 0 |

Table 1: Numerical values of thematic roles

Note that these values are stipulative. Multiple authors, **Wunderlich1997** and **Mylne1999**, among them, have proposed feature-based decompositions of thematic roles, and more targeted research of this sort could provide a path towards an improved formalization of thematic weight. Furthermore, it is quite possible that the relative weightiness of these roles, as well as which properties and features are grammaticalized as weighty, represents a source of parametric variation. Therefore, the values in Table ?? are merely a starting point.

I propose that Shona causative heads take compliments with a maximum thematic weight of 2, and that Venda causatives take compliments with a maximum thematic weight of 4 (or potentially more[4] ). Therefore, any compliment with an Agent is too thematically heavy for a Shona causative to embed. When *i** introduces non-agentive Causees in unergative and transitive constructions in Shona, it has an expletive interpretation because otherwise it would introduce an Agent, which would render the compliment incompatible with the weight limit of Shona causatives. I also assume that the causative head introduces a Causee and Causer role, and that the Causee role provides the semantic pretense necessary for the expletively-introduced non-Agentive Causee to be integrated into the construction.

My thematic weight proposal is far more semantically motivated than previous treatments of compliment selection in causative constructions. The Shona sentences in (??) help justify this departure.

xnumiv. (Shona)

[4]I propose the maximum thematic weight of 3 for compliments of Shona causatives based partially on **Wechsler2014**, which explores limitations on the total number of arguments Shona verbs are able to sustain. Without data on the extent to which Venda allows co-occurring causative and applicative heads, I am unable to make an equally precise claim about its causative compliment selection.

| | | | | | |
|---|---|---|---|---|---|
| a. | *Tinotenda* | *a-ka-donh-es-es-a* | *Tatenda* | *poto* | *ye-mvura* |
| | 1.Tinotenda | SM1-PST-fall-CAUS-CAUS-FV | 1.Tatenda | 9.pot | POSS-9.water |
| | 'Tinotenda made Tatenda drop the water pot.' (Litterally: 'Tinotenda made Tatenda make the water pot fall.') | | | | |
| b. | *Tinotenda* | *a-ka-dy-is-is-a* | *mwana* | *chipunhu* | |
| | 1.Tinotenda | SM1-PST-eat-CAUS-CAUS-FV | 1.child | 7.spoon | |
| | 'Tinotends fed the child with a spoon.' (Literally: 'Tinotenda made spoon make the child eat.') | | | | |
| c. | ?*Tinotenda* | *a-ka-tamba-is-is-a* | *Tatenda* | *Tendai* | |
| | 1.Tinotenda | SM1-PST-dance-CAUS-CAUS-FV | 1.Tatenda | 1.Tendai | |
| | 'Tinotenda made Tatenda | | | | |

(Each of the sentences in (??) are double-causative constructions. Although *poto yemvura*, 'water pot' is the Causee of the first causative in (??). It is also the internal argument of the verb and a prototypical Patient so its thematic value is 0. The second Causee *Tatenda* is a non-agentive Experiencer and its thematic value is 1, making the thematic weight of each compliment acceptably light for both causatives to embed. (??) demonstrates that Shona, like Kinyarwanda, exhibits causative-instrumental syncretism (**Kimenyi1980**, 1995; **Peterson2007**; **Jerro2013**). I follow **Jerro2013** and assume that instrumental-causative constructions are not fundamentally different from other causatives. The verb in (??) is transitive, but with its internal argument omitted, rendering the structure essentially identical to the doubly-causativized unegative in (??). However, (??) is completely grammatical, whereas (??) is borderline acceptable at best. The problem is thematic weight. In (??), the first Causee, *mwana*, 'the child,' is non-agentive and has a thematic value of 1, as does the second Causee, *chipunhu*, 'the spoon.' The first causative's compliment has a thematic weight of 1, and the second causative's compliment has a thematic weight of 2, so neither causative is overburdened and the sentence is grammatical and felicitous. In (??), however, it is unintuitive to interpret an animate Causer such as *Tatenda*, as non-agentive, and if *Tatenda* is an Agent, then the thematic weight of the second causative's compliment is 4, which is far too heavy for a Shona causative head to embed. Although it is unintuitive that *Tatenda* would be non-agentive, it is not impossible. Narrative context that firmly establishes both *Tatenda* and *Tendai* as non-agentive drastically improves the sentences acceptability for my consultant[5] , which further supports my claim that causative selectional restrictions are thematically motivated. While thematic weight may not be the whole story, the sentences in (??) provide strong evidence that some formalized measure of thematic prominence is likely a significant part of the explanation.)

- **– 2.4 *i**-bundling**

In addition to compliment selection, Pylkkänen's causatives are distinguished by a "Voice-bundling" toggle. I assert that this property, which I reconceive as *i**-bundling, is the product of the causative head merging directly with *i** before merging into the rest of the structure. The result is that the new compound CAUS-*i** possesses the selectional requirements of both the causative head and of *i**. The compound takes an initial compliment according to its inherent thematic weight limit, and because *i** selects for the category D (**WoodMarantz2017**: 257)

[5] I used a story where Tatenda was under a spell and Tendai was the name of a puppet.

and has not yet had its selectional feature checked, an external argument must be introduced. It is not a property of *i** that it forces a merge with a nominal argument (**WoodMarantz2017**: 257), but I argue that when its features bundle with causatives, the resulting structure either mandates the introduction of an agentive external argument or closes off the extended projection of the verbal domain such that no other argument can be merged and semantically integrated. While compliment selection constrains what causatives can embed, *i**-bundling essentially constrains what can embed causatives.

Pylkkänen classifies English causatives as "root-selecting" and "Voice-bundling," so under this analysis an *i**-bundling causative that can take compliments with a maximum thematic weight of 0. An English causative cannot embed unergative or transitive roots, because once it has merged, there is no room for anything except the Causer. Because it is non-*i**-bundling, the Japanese causative can occur with ungergative and transitive roots, despite it also having a maximum compliment weight of 0:

(Japanese (**Pylkkänen2008**))

| | | |
|---|---|---|
| *John-ga* | *kodomo-o* | *nak-asi-ta* |
| John-NOM | child-ACC | cry-CAUS-PST |
| 'John made the child cry.' | | |

Figure **??** demonstrates the proposed structure of the sentence in (**??**)

*Figure ??: The structure of a causativized unergative in Japanese*

Figure **??** reveals a problem: the current theory does not prevent the lower *i** from manifesting non-expletively and introducing an agentive Causee. Like in Shona, Causees in Japanese are non-agentive (**Pylkkänen2008**), so in order not to over-generate, this model needs an additional component. I suggest that the first agentive argument to merge above a causative head automatically saturates the Causer role it introduces, closing the structure off to possible Causees. The 'child' is therefore non-agentive, because in order to be the Causee and not the Causer, it must be.

**Pylkkänen2008** asserts that Bemba causatives cannot embed high applicative arguments because they are "verb-selecting" and high applicatives are phase heads, but this conclusion conflicts with the fact that Shona's "verb-selecting" causatives can embed high applicatives. Pylkkänen cites a Bemba construction where the causative scopes over the applicative and does not address whether or not Bemba also prohibits constructions in which the applicative scopes over the causative. My proposal can account for both of these possibilities, while also

accounting for Shona.

If Bemba allows applicatives to embed causatives, but not vice-versa, its causative selects for compliments with a maximum thematic weight of 1 and does not bundle with *i**. In this scenario, the causative can embed no more than its non-agentive Causee and a weightless Theme/Patient, which is why complements with Benefactives and co-occurring non-agentive Causees are too heavy. Because the occasion of the causative's merge does not mandate the immediate introduction of the Causer, however, high applicatives are able to scope over causatives.

If Bemba completely prohibits causative-applicative co-occurrence, its causative head selects for compliments with a maximum thematic weight of 1 and bundles with *i**. The causative head is unable to embed applied objects for the same reason as before, but because this causative also necessarily triggers the introduction of an agentive Causer, there is no position for the high applicative to merge and embed it.

In Hiaki, an Uto-Aztecan language, causatives can embed high applicatives, but high applicatives cannot embed causatives (**Jung2014**). An *i**-bundling causative head that takes compliments with a maximum thematic weight of 2 would be consistent with this causative-applicative co-occurrence pattern. This causative head would be able to embed compliments as large as a non-agentive Causee and an applied object together, but if it were also *i**-bundling, applicatives would not be able to embed it, because it would be immediately followed by the introduction of an agentive Causer. Since a thorough engagement with **Jung2014** would represent too large a digression, however, all this is merely conjecture, based solely on the scopal possibilities of cooccurring causative-applicative constructions.

Overall, my proposal, with its three main components, compliment selection based on thematic weight, *i**-bundling, and the first-Agent-is-the-Causer rule, is both flexible and constrained enough to account for a range of causative variation.

# 3 Applicatives

## 3.1 Pylkänen's typology

Since Pylkkänen first proposed her high-low typology of applicatives (**??**) many authors have suggested that this binary is not enough to capture the range of applicative argument introduction in the world's languages (**Jeong2007**; **Peterson2007**; Georgala, **PaulWhitman2008**; **Cuervo2003**, 2010, 2012, 2015; **Tsai2009**; **Kim2011**, 2012; **Georgala2012**). In Cuervo's overview at the beginning of this volume, she presents evidence that far more complexity is necessary to describe the world's

dative and applicative diversity. She proposes a rich typology that takes into account the many kinds of structures that applicatives embed, as well as the many kinds of structures that embed applicatives. It is also my view that Pylkkänen's model is not fully comprehensive, and in this section, I argue that high and low merge locations are not sufficient to describe the range of applicative constructions in and outside of Bantu.

**Pylkkänen2008** proposes that there are HIGH and LOW applicatives. High applicatives are functional heads that introduce and license non-core arguments merged above the verb and below Voice, relating the applied argument to an event. High applicatives often convey the notion of a favor, where the applied object, prototypically (though not always) a Benefactive, is positively impacted by the entire set of circumstances described by the verb:

(Shona)

| | | | |
|---|---|---|---|
| *Musikana* | *a-ka-chek-er-a* | *baba* | *uswa* |
| 1.girl | SM1-PST-cut-APPL-FV | 1a.father | 14.grass |
| 'The girl cut grass for the father.' | | | |

Low applicatives introduce and license a non-core argument merged below the verb and relate the applied argument to the verb's DO. This structure is often interpreted as a transfer of possession:

- xn̄umiv. (Shona)

| | | | |
|---|---|---|---|
| *Mai* | *va-p-a* | *vana* | *bhuku* |
| 2b.mother | SM2b-give-FV | 2.children | 5.book |
| 'The mother gave the children a book.' | | | |

For Wood & Marantz, low applicatives are the result of *i** merging with the internal argument of a verb and introducing another argument interpreted to be the internal argument's possessor. This merge location is wholly unique to low applicative constructions, so no disambiguating mechanics are necessary; if *i** merges directly with a nominal argument inside a VP, it always has a low applicative interpretation (see Figure **??**).

*Figure ??: Partial structure of the low* APPL *construction 'Miriam gave the children a gift.'*

High applicatives involve the root-adjunction structure I mentioned in my explanation of *i**-bundling in §?? Because the structural position of high applicatives is the same as Voice, Wood & Marantz distinguish external arguments with high applicative interpretations from external arguments with agentive (or expletive) interpretations, by proposing that before merging with the verb, applicative heads merge with a root that essentially has the meaning of the preposition *for*. In another paper from this collection, Calindro, who also deploys the underspecified *i** head in her analysis, argues that a curious diachronic shift has occurred in Brazilian Portuguese. The language lacks a lexical root of the kind described by Wood & Marantz, but Calindro presents evidence that speakers have innovated a construction where *i** merges with an existing preposition before that combined constituent merges with the verb phrase, a structure nearly identical to the one Wood & Marantz propose for applicatives (see Figure ??).

*Figure ??: Partial structure of the high* APPL *construction 'John held the purse for Mary.'*

In §??, I discuss different interpretations of the same applicative surface structure.

- **– 3.2 Applicative Allosemy**

The sentence in (??) has three distinct interpretations.

(Shona)

| *Mai* | *va-ka-bik-ir-a* | *mwana* | *chikafu* |
|---|---|---|---|
| 2b.mother | SM2b-PST-cook-APPL-FV | 1.child | 7.food |
| i. 'The mother cooked the child food.' | | | |
| ii. 'The mother cooked food for the child.' | | | |
| iii. 'The mother cooked the food instead of the child.' | | | |

Distinguishing between all three meanings is difficult, but narrative context allows for clearer elicitation and explanation of the data. Below are three narratives I used with my consultant to determine that each of these interpretations are valid and possible.

xnumiv. **(Recipient)**

(The child was hungry and unable to feed herself. Her *mother cooked the child food* and she (the child) ate it.)

In this interpretation, the applicative defines a relationship between the food the mother cooked and the child. The child receives and then possesses the food.

**(Benefactive)**

(The child was old enough to learn how to cook. She wanted to watch her mother prepare her favorite dish. The mother complied with this wish and *cooked the food for the child* so that she could learn.)

In this interpretation, the applicative defines a relationship between the child and the event of the food being cooked. The child benefits from the event in a way that does not semantically necessitate the food entering her possession.

**(Substitutive )**

(The child was supposed to cook dinner for the family, but she was sick and unable to fulfill her responsibility. The mother helped and *cooked the food instead of the child*, such that she did not have to cook the food.)

The allosemy in (**??**)and (**??**) is not well accounted for in the literature. Bantu languages have been analyzed as having both (high) applicative derivational

morphology and (low) applicative lexical ditransitive constructions (van der **Wal2017**). While it is true that all of Bantu's rare ditransitive roots have low applicative interpretations,[6] it is not true that all applicative morphology corresponds to high applicative semantics. I assume that low meaning coincides with low syntax, and that high meaning coincides with high syntax, regardless of surface level representation. Why some low applicative constructions have applicative morphology and some do not is an important question, one that I am unfortunately unable to answer in this paper. Despite these issues, the syntactic distinction between the Recipient and Benefactive meanings in (**??**) and (**??**) is commonly acknowledged. The structure behind the substitutive interpretation, however, is not well established in the literature, so I justify my choice to classify it as semantically and structurally distinct from other high applicatives in §**??**

- **– 3.3 Super-high applicatives**

**MartenKula2014** suggest a SUPER-HIGH applicative in Bemba with substitutive semantics, distinguished morphologically by the locative clitic =kó:

(Bemba (**MartenKula2014**: 22))

| | | |
|---|---|---|
| *Ábá-icé* | *bá-lée-tólók-el-a=kó* | *bá-mayó* |
| 2.children | SM2-PROG-jump-APPL-FV=LC17 | 2.mother |
| 'The children are jumping for/on behalf of the mother.' | | |

Shona is like Bemba and has a morphological strategy for indicating substitutive semantics:

(Shona)

| | | | |
|---|---|---|---|
| *Tinotenda* | *a-ka-bik-ir-ir-a* | *Tatenda* | *chikafu* |
| 1.Tinotenda | SM1-PST-cook-APPL-APPL-FV | 1.Tatenda | 7.food |
| 'Tinotenda cooked food instead of Tatenda.' | | | |

[6] Rare because many canonical ditransitives such as 'show,' 'tell,' or 'send' are conveyed using applicative or causative constructions.

The doubled applicative affix in (??) is the clearest way to express this interpretation in Shona, but the substitutive meaning can be interpreted from a single applicative (demonstrated in (??)). There are also double applicative structures where each affix indicates a separate instance of applicativization, and two applicative arguments are introduced (see the discussion of (??) later in this section for an example).

I adopt **Marten2016**'s (**Marten2016**) proposal that the substitutive applicative is super-high because it merges above Voice. In Figure ??, I demonstrate this structure using *i** to introduce all external arguments.

*Figure ??: Structure of the super-high* APPL *construction in (??)*

I assert that super-high applicatives merge first with the same 'for' root as high applicatives. The semantic contributions of high and super-high applicatives are similar, in that they both broadly designate the applicative arguments as entities positively impacted by their compliments. Therefore, in combination with the fact that the structural positions of high and super high applicatives are distinct, I argue the same root is sufficient.

Kim (2011, 2012) also argues for an applicative merge location above Voice (above the external most argument introduced by *i** in the terms of this analysis). Kim proposes that in Japanese adversity causatives (which I discussed in §??) and Korean adversity passives, which are very similar to Japanese adversity causatives an applicative head she calls "peripheral APPL" merges very high above all other external arguments and introduces affectee arguments that are the syntactic subjects of their clauses. I assume that, given the similarity between the two structures, Wood & Marantz's account of Japanese adversity causatives is a suitable account of Korean adversity passives as well. Kim's proposed merge location for peripheral APPL is motivated primarily by word order: the affectee is the syntactic subject of the construction by virtue of preceding the verb (Korean and Japanese are SOV). In my analysis, the arguments introduced by super-high applicatives are not syntactic subjects and word order is a challenge for the theory, rather than supporting evidence. While I am not able to resolve the issue of word order here,[7] I do motivate my proposed structural position for super-high applicatives with a variety of

[7] In addition to leaving the derivation of word order to future work, I also beg off the topic of affix ordering. Most Bantu languages have a strict templatic ordering of causative and applicative affixes (**Good2005**), and many display causative-applicative co-occurrence with ambiguous scope (**Baker1985**; **Hyman2002**). It suffices to say, that given variable semantic interpretations and the fact that the causatives and applicatives have to concatenate onto the verb stem apart from the arguments they introduce, movement is necessary to derive these surface structures. Movement is not, however, a part of this analysis.

evidence.

Empirical support for the super-high applicative's super-high merge location in Shona comes from three sources. First, the substitutive semantics relate the applied object, the Substitutee, to the Agent and the entire event in which it participates, indicating that the compliment of the applicative root-adjoined *i** is large, including the verb phrase and its external argument. Second, binding data in double-applicative constructions where there is one substitutive applicative and one high applicative, support the structurally higher placement of the substitutive.

(Shona)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| a. | *Shiri* | *ya-ka-yimb-ir-ir-a* | *mai* | *wese* | *ari* | *mu-taundi* | *mwana* | *wake*$_i$ |
| | 9.bird | SM9-PST-sing-APPL-APPL-FV | 2b.mother | every | in | 18-9.town | child | POSS$_i$ |
| | ‘The bird sang for her$_i$ child instead of every mother$_i$ in town.’ | | | | | | | |
| b. | **Shiri* | *ya-ka-yimb-ir-ir-a* | *mai* | *wake*$_i$ | *mwana*$_i$ | *wese* | *ari* | *mu-taundi* |
| | 9.bird | SM9-PST-sing-APPL-APPL-FV | 2b.mother | POSS$_i$ | child$_i$ | every | in | 18-9.town |
| | ‘The bird sang for every child$_i$ in town instead of her$_i$ mother.’ | | | | | | | |

In (??), the Substitutee ('the mother') is able to bind the Benefactive ('the child') of the singing event enacted by the Substitute ('the bird'), but in (??), the Benefactive is unable to bind the Substitutee, indicating that the Substitutee is in a higher structural position than the Benefactive.
I discuss the third source of empirical evidence, which comes from scopal interactions in cooccurring causative-applicative construction, in §??

- – **3.4 Applicative-causative cooccurrence**

**Wechsler2016** concludes that there are four hypothetical scopal interactions in a construction where both an applicative and a causative affix to an unergative stem. They are illustrated with English examples and tree diagrams in Figures 8-12.
*Figure ??: Causativized high applicative: Tinotenda made Chipo dance for Tatenda (such that Tatenda benefitted from the dancing)*
*Figure ??: High applicativized causative: Tinotenda, for Tatenda, made Chipo dance (such that Tatenda benefitted from the coercive action*[8] *)*
*Figure ??: Super-high applicativized causative: Tinotenda, instead of Tatenda made Chipo dance (such that Tatenda did not have to make Chipo dance)*
*Figure ??: Causativized Super-high applicative: Tinotenda made Chipo dance instead of Tatenda (such that Tatenda did not have to dance)*
Previously, I stated that the structural positions of high and super-high applicatives were complimentary, but the implementation of *i** flattens the landscape of structural diversity that anchors the differentiation between the two structures. Super-high applicatives embed external arguments, but Figure ?? demonstrate that high applicatives can embed non-agentive Causees, which are also external arguments, so it is necessary to establish the structural or semantic context that distinguishes super high from high. I assert that when applicative root-adjoined *i** merges directly above an agentive argument introduced by non-expletive *i**, it is interpreted as having substitutive semantics.
Three of the interpretations in Figures 8-11 are possible in Shona. The prohibited interpretation provides the additional evidence I promised in §?? Because Shona causatives can embed compliments with a maximum thematic weight of only 2, and because applicative root-adjoined *i** can only be

[8] The interpretive difference between the scopes in Figures 8 and 9 may be difficult to untangle. Imagine, however, a situation where *Tatenda* needs to learn how to make someone dance and so watching *Tinotenda* direct *Chipo* is helpful.