A (meso)parameter for Talmy's typology*

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ABSTRACT

Talmy's (2000) satellite-/verb-framed typology can be accounted for, in its diachronic instantiations, through a parameter. Taking as a starting point Biberauer & Roberts's (2012, 2015) classification of parameters, I point out that this variation shows the diachronic pattern attributed by these authors to mesoparameters, i.e., parameters affecting a core functional category, in this case the one encoding directionality, Path (Acedo-Matellán 2010, 2016). Specifically, the two possible values of Path are its phasal or non-phasal status (Real-Puigdollers 2013). In the former case, Path conforms a spell-out domain of its own, yielding the directional satellites typical of satellite-framed languages. In the latter case Path has to form a spell-out domain with the verb, giving rise to the path-encoding verbs typical of verb-framed languages. I explore the satellite- to verb-framed change in the history of Latin-Romance and Greek, and the reverse change in the development of certain Rhaeto-Romance varieties. Only in the latter case is there reason to believe that language contact has played a relevant role.

1 Introduction

In Biberauer & Roberts' (2012, 2015) classification of parameters a mesoparameter is one located in "all heads of given natural class, e.g. [+V] or a core functional category" (Biberauer & Roberts 2015:9). Biberauer & Roberts (2012) observe that, from a diachronic perspective, a mesoparameter is expected to show two relevant properties. On the one hand, although the parameter may survive with a particular value for centuries, there is attestation of its resetting in the historical record of the languages considered. On the other hand, when the resetting does occur, it is arguably due to language contact.

In this work I explore whether one such parameter is involved in Talmy's well-known (2000) typology, illustrated in (1):

(1) a. Latin (1 c. AD); Plin. Nat. 20, 72¹

Aqua [...] maculas vestium *(e-)lui dicunt. liquid.ABL stains.ACC clothes.GEN out-wash.INF.PASS say.3PL 'It is said that with this liquid the stains of clothes are washed out.'

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¹ If not otherwise indicated the Latin data have been retrieved from the online version of the Bibliotheca Teubneriana Latina (2009).

b. Catalan translation

Diuen que aquest líquid renta les taques de la roba. say.3PL that this líquid washes the stains of the clothes

The above examples illustrate the expression of a complex removal eventuality —"wash away"— in two different but genetically related languages: Latin and in Romance (Catalan). In Latin, as in English, the element encoding directionality is non-verbal, a "satellite": the prefix *e*- 'out'. In Romance the verb —Cat. *rentar* 'wash, wash away'— can encode the whole washing away eventuality.

Empirically, the study involves the examination of two instances of the typological change in its two possible senses: the change from a s(atellite)- to a v(erb)-framed system, attested in the evolution of Latin and Ancient Greek, and the reverse one, from a v- to a s-framed system, attested in the development of modern Rhaeto-Romance varieties. The theoretical analysis is based on the idea that this type of cross-linguistic variation stems from the properties of a "core functional category" encoding directionality, here called Path.

Initial evidence suggesting that Talmy's typology can in fact be a mesoparameter in Biberauer & Roberts's (2012, 2015) sense comes from how it patterns with respect to the diachronic properties mentioned above. To begin with, the typology seems to be very stable. For instance, taking into account the behaviour of the modern varieties of Germanic and what we know about the generality of the Indo-European languages (Talmy 2000, Acedo-Matellán 2016; see Verkerk 2014 for a different view), there is no evidence in the historical record of Germanic of a v-framed system. However, the resetting of the parameter, in the two possible directions (from s- to v-framed and vice versa), is historically attested at least once in quite a few languages. Thus, beside the cases of Latin and Greek becoming v-framed, as studied in this work, Peyraube (2006:121-135) describes how Chinese changed from a s- to a v-framed system ten centuries ago —which, on the other hand, constitutes additional evidence for the stability of the parameter. With respect to the second diachronic property, in this paper I provide evidence from Rhaeto-Romance that the resetting of the parameter may be due to language contact.

The work has several aims. The main one is to provide an empirical case of a mesoparameter and to defend the parametric approach to (diachronic) variation. By the same token, I defend that the cross-linguistic variation described in Talmy's typology, in its diachronic dimension, is explainable in terms of a mesoparameter. Incidentally, I also reveal new data from a Romance variety, namely Rhaeto-Romance, impacting the distribution of Talmy's typology in the Romance domain. Finally, the research helps state new empirical questions relevant to diachronic parameter theory: in particular, whether the resetting of a parameter requires the same conditions in its two possible senses.

The paper is structured as follows. In section 2 I describe Biberauer & Roberts's (2012, 2015) theory of parameters, focusing on the properties of mesoparameters. In section 3 I propose a syntactic theory to deal with Talmian variation, in the shape of a parameter. Section 4 deals with the first possible resetting of the proposed parameter: from an s-framed to a v-framed system, as shown in the change from Latin and Ancient Greek to Romance and Modern Greek. Section 5 is dedicated to the inverse resetting, in the particular case of the emergence of an s-framed system in certain varieties of Rhaeto-Romance. Section 6 contains general conclusions and indicates avenues for future research.

2 Parameters and mesoparameters

Biberauer & Roberts (2012, 2015) put forth the idea that parameters vary according to the nature and number of the items that they affect. In particular, for a value v_i of a certain variant feature F they describe the following possibilities (Biberauer & Roberts 2015:9):

- 1. Macroparameters: all heads of the relevant type share v_i; an example is the head-initial/final parameter.
- 2. Mesoparameters: all heads of a given natural class, e.g. [+V], share v_i or a core functional category shows v_i; e.g., the parameter governing the presence of null subjects affects T.
- 3. Microparameters: a small subclass of functional heads share v_i ; an example is the set of modal verbs that emerged in 16th c. English.
- 4. Nanoparameters: one lexical item shows v_i; e.g., *do* in English, which lost the ability to invert in conditional contexts in the 19th-20th c.

The classes of parameters are ordered with respect to the salience of their effects in the Primary Linguistic Data (PLD) that the acquirer is exposed to. Macroparameters are the most salient ones, since their effects are the most pervasive: they affect groups of whole categories. Thus, they can be quickly set by the acquirer. Nanoparameters are the least salient ones, since they amount to irregularities affecting single lexical items and are therefore not so general in the PLD. Importantly for diachrony, salience in the PLD correlates with stability in time. This is so because diachronic change rests on divergent acquisition, whereby the acquirer, in reanalysing the PLD, assigns a value to the relevant parameter different from the one involved in the grammar of the previous generation (Lightfoot 1979). The most salient parameters are most easily set and so their effects in the PLD are most resistant to reanalysis. The least salient parameters, i.e., nanoparameters, are most difficult to set, and, therefore, their effects in the PLD are least resistant to reanalysis.

Mesoparameters produce quite salient effects in the PLD, since they affect whole classes of items or a core functional category, e.g., T. They are thus quite stable in time, although there is historical record for their resetting in the cases presented by Biberauer & Roberts (2012, 2015). For instance, there is attestation of the resetting of the null-/non-null subject parameter, a mesoparameter affecting T, in the evolution from Latin to modern varieties of Gallo-Romance, which are non-null subject languages. This salience, in turn, makes plausible the hypothesis that it takes language contact to reset a mesoparameter.

In the following sections I will endeavour to show that the cross-linguistic variation described by Talmy (2000) can be claimed to involve a mesoparameter, capitalising both in the nature of mesoparameters and their effects in diachrony.

3 Talmian variation from a syntactic perspective

3.1 An analysis in terms of defective vs. non-defective phasehood

Talmy (1991, 2000) describes two basic patterns in the morphological expression of the semantic components involved in change of location events. He capitalises on the directionality component, which can be expressed verbally or non-verbally, according to the language. This is shown in the contrast involving s-framed English and v-framed French:

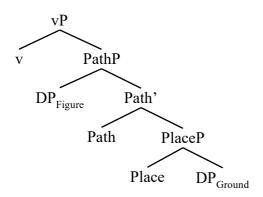
- (2) a. [The ball]Figure [rolled]Motion + Manner Co-event [in.]Path
 - b. [La balle]Figure est [entré]Motion + Path [en roulant.]Manner Co-event

In s-framed English (2a) the Path component is expressed non-verbally, in the particle *in*. The verb expresses the Motion event and also a Manner Co-event (rolling). In v-framed French, in turn, the Path is expressed in the verb, together with the Motion event. Any Manner Co-event has to be expressed as an adjunct (*en roulant*).

Quite a few researchers have interpreted Talmy's typology from a syntactic perspective (Klipple 1997, Mateu 2002, Mateu & Rigau 2002, Acedo-Matellán 2006, 2010, 2016, Real-Puigdollers 2010, 2013, among others). The semantic components of Talmy's theory have been interpreted as corresponding to different projections of the verbal and the prepositional domain. In particular, the s-/v-framed distinction has been proposed by a variety of scholars to depend on the properties of the functional head encoding directionality, Path. The standard assumption is that in v-framed languages Path is lexicalised with the verb, while in s-framed languages Path may be realised independently from the verb.

Among the syntactic theories that deal with Talmy's typology, Real Puigdollers' (2010, 2013) is particularly interesting from a parametric perspective, since it offers a precise way of implementing the distinction as emerging from a value of a particular functional head, Path. In this work I will make use of her theory, although I will introduce some modifications in dealing with predicates expressing removal in v-framed languages, in section 5.2. The Path head is situated above the projection encoding location, Place, in the by-now standard view of the minimal functional structure of directed motion events (see Koopman 2000, Svenonius 2007, 2010, Den Dikken 2010, Acedo-Matellán 2010, 2016, among others):

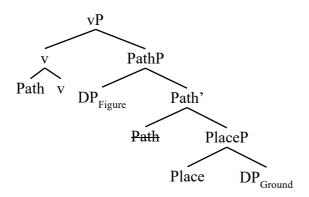
(3) The general structure of directed motion constructions



Assuming the nature of v, Path and Place as phasal heads, Real-Puigdollers argues that these heads can be non-defective or defective, i.e., they can come with a full or a non-full set of phi-features. Crucially for present purposes, defectivity impacts the lexicalisation of these heads, because of two conspiring factors. On the one hand, based on Den Dikken's (2010) treatment of null heads, defective heads may be licensed by incorporating into the upper phasal head, the one endowed with a full set of phi-features. Otherwise, the phrase headed by the defective head is syntactically frozen and has to be adjacent to the upper head, as I illustrate below with the behaviour of PlaceP in directed motion constructions in Germanic. On the other, hand, Real-Puigdollers proposes, following ideas in Marantz (2007, 2013), that phases are involved in lexicalisation, since spell-out domains depend on phasal heads, as explored prominently in Newell (2008) and Embick (2010). Consequently, defective heads, when incorporating into the upper phasal head, determine a spell-out domain with it, rather than heading one of their own. With respect to Talmy's typology in particular, the claim is

that the Path head is defective in v-, but not in s-framed languages, and that it forms a spellout domain with the upper head, v:²

(4) Path-to-v incorporation in v-framed languages



One of the first consequences of the defectivity of Path in v-framed languages is that these languages do not count with any preposition akin to English to, German zu or Norwegian til, as pointed out by authors like Son & Svenonius (2008). This is due to the fact that Path is never lexicalised independently of the verb in v-framed languages. A second consequence is the fact, noted by Talmy (1991, 2000) and many other authors, that the lexicon of v-framed languages counts with a wide range of monomorphemic verbs encoding the different senses of the path of motion:

(5) Monomorphemic path verbs in some v-framed languages

a. Japanese: hairu 'go in', deru 'go out', oriru 'go down', agaru 'go up', etc.

b. Basque: sartu 'go in', irte 'go out', jaitsi 'go down', igo 'go up', etc.

c. Hebrew: nixnas 'go in', yaca 'go out', yarad 'go down', ala 'go up', etc.

Crucially, Path is here intended to involve the kind of directionality found in change of location constructions, i.e., a bounded path, as expressed by the abovementioned Germanic prepositions. Thus, the mentioned lexical defectivity found in v-framed languages does not extend to prepositions expressing unbounded paths, as Spanish *hacia*, Catalan *cap a* or Italian *verso* 'towards'. Since at least Aske (1989) we know that prepositions of this kind can be combined with manner of motion verbs in v-framed languages:

(6) Spanish; unbounded path prepositions with manner of motion verbs
El barco navegó hacia la isla durante unos minutos
the ship sailed towards the island for some minutes
pero después cambió de rumbo.
but afterwards changed.3SG of course

'The ship sailed towards the island for some minutes but afterwards changed course.'

Unbounded path PPs of the *towards* kind seem to behave like adjuncts, as made evident, for instance, by the Dutch data from Hoektra and Mulder (1990), Hoekstra (1999), in Zubizarreta and Oh (2007:2). Thus, *naar*-PPs in Dutch are interpreted as bounded paths (translated as *to*-PPs in English) when showing the syntax of arguments, and as unbounded paths (translated

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² See Reintgen (2012) for an explanation of the morphological change in Ancient Egyptian in terms of the phasehood of v.

as *towards*-PPs in English) when showing the syntax of adjuncts.³ Acedo-Matellán (2010, 2016) adds evidence from patterns of prefixation in Latin and Slavic that unbounded paths are not merged VP-internally.⁴ All in all, assuming the theory presented here, PPs expressing unbounded paths of the "towards" kind should not be involved in the kind of lexicalization patterns described by Talmy, since these involve strictly VP-internal material.⁵

Crucial in understanding the typology is the point of merger of roots, i.e., the elements encapsulating the encyclopaedic dimension of the change of location event. Real Puigdollers (2013:188f) proposes a non-lexicalist theory of roots by defining them as the elements whose label is not visible at the interfaces. It follows that roots cannot head a phase but rather have to occupy the bottom-most position of each phasal cycle, including the one generated at First Merge. In the case of v-framed languages, since Path does not head a phase in these languages, roots appear below this head, at the bottom of the v-Path phase, and combining with the phase headed by Place:

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(i) En Lluc ha gatejat fins a la porta. (Catalan)
Lluc has crawled up to the door
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However, *until*-prepositions like Catalan *fins a*, can also appear in existential sentences, suggesting that they actually do not denote a (bounded) path of motion:

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(ii) Hi ha neu fins a la vall. (Catalan) there is snow down to the valley.
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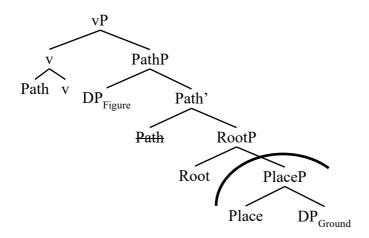
See Narasimhan, Di Tomaso, and Verspoor (1996), Real Puigdollers (2010, 2013) and Acedo-Matellán & Real-Puigdollers (2014) for related discussion.

³ An argumental *naar*-PP appears adjacent to the verb in subordinate clauses, and requires the BE-auxiliary in the perfect tense, while an adjunct *naar*-PP admits to be separated from the verb by an adverbial and requires the HAVE-auxiliary in the perfect tense (Zubizarreta and Oh 2007: 133).

⁴ Thus, according to Gehrke (2008), *k* 'toward', in Russian, and *k*, *vůči* 'toward', in Czech, are the only prepositions without prefixal counterparts (Acedo-Matellán 2016:198). In Latin, *ad* is analogous to Dutch *naar* in that it shows either a bounded ('to') or an unbounded ('towards') interpretation. The former is licensed in constructions headed by verbs prefixed with *ad*, while the latter emerges only in constructions in which *ad* heads a PP and the verb is unprefixed (Acedo-Matellán 2016:676-68). Under the assumption that spatial prefixes attach to the verb from within the VP (Svenonius 2004, Acedo-Matellán 2010, 2016), this situation is expected if the "towards" sense can only be licensed by material merged outside the VP, i.e., from a VP adjunct. ⁵ See Folli & Harley (2006) and Ramchand (2008:115) for a different view, where PPs expressing an unbounded path are merged VP-internally. On the other hand, I also wish to keep out of the discussion prepositions like *until*, which apparently correspond to bounded paths (Inagaki 2002, Beavers, Levin, and Tham 2010). These prepositions can also combine with manner of motion verbs in v-framed languages:

⁶ See Real Puigdollers (2013:188f) for the fully detailed proposal.

(7) Root position in v-framed languages



Adopting Arad's (2003) theory of root interpretation as dependent on its syntactic environment, any root merged below v-Path will be interpreted as involving an event with a directional component. Different roots are expected to fit differently well in this position, according to their encyclopaedic properties. For instance, the root for the Catalan verb *entrar* 'go in' is perfectly felicitous as complement of Path. Manner verbs like *córrer* 'run', can also be accommodated as expressing path of motion, although not so liberally. Other manner verbs like *relliscar* 'slip' are unevenly felicitous across Catalan-speakers when used in directed motion constructions. Finally, non-directional verbs of manner of motion like *ballar* 'dance' are not accepted by any speaker in directed motion constructions (data from Real Puigdollers 2010):

- (8) La Núria ha entrat a l'habitació. Núria has go_in.PTCP at the room 'Núria has gone into the room.'
- (9) Els nens van córrer a l'escola. (Directional sense intended) the children PST.3PL run.INF at the school 'The children ran to the school.'
- (10) %En Pere va relliscar a terra.

 Pere PST.3SG slip.INF at ground 'Pere slipped to the ground.'
- (11) *Els nuvis van ballar a la sala. (Directional sense intended) the newly wed PST.3PL dance.INF at the hall 'The newly wed danced to the room.'

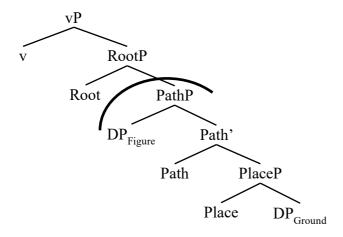
According to Real Puigdollers (2010), in addition to cross-speaker variation in individual Romance languages there is also cross-linguistic variation with respect to the acceptability of different motion verbs in the directed motion construal. For instance, Italian speakers broadly admit a directed motion *gattonare* 'crawl', while Catalan and Spanish speakers do not admit the corresponding construction in their languages. These gradience effects show that the felicity of a given verb (root, really) as heading a directed motion construction in v-framed languages depends on its ability to in effect express directed motion, since the directionality is in no case expressed in the PP.⁷

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⁷ See Acedo-Matellán & Real-Puigdollers (2014) for a slightly different approach.

With respect to s-framed languages, Path is non-defective and may thus head a spell-out domain of its own, the verbal root typically appearing directly below v. It is therefore not interpreted necessarily as expressing direction, but just a dynamic event:

(12) Root position in s-framed languages



This is why all motion roots fit equally well in directed motion constructions involving path prepositions in English. Thus, all the English renditions of the Catalan data in (8) through (11) are unproblematic:

- (13) Núria has gone into the room.
- (14) The children ran to school.
- (15) Pere slipped to the ground.
- (16) The newly wed danced/tiptoed/salsaed to the hall.

Importantly, there seems to be independent syntactic evidence, that is, evidence not involving lexicalization patterns, for the (non-)defectivity of Path and Place in s- and v-framed languages. Real-Puigdollers (2010, 2013) proposes that PathP may form a full-fledged phase in s-framed languages, while PlaceP, when merged below PathP, is defective. The opposite is found in v-framed languages, which always sport a full-fledged phasal PlaceP. The arguments this author adduces are based on the syntactic independence or lack thereof of PathP and PlaceP, partly based on observations in previous studies like Thomas (Thomas 2001, 2003) and Gehrke (2008). With respect to s-framed languages, PathPs are not required to be adjacent to the verb. For instance, topicalisation and adverbial intervention may disrupt the usual verb-PathP order with no ungrammaticality ensuing:

- (17) a. Into the room John ran.
 - b. [T]he two creatures ran directly into the water. (From *Robinson Crusoe*)

By contrast, Place, defective, is incorporated into Path, as overtly shown by prepositions *into* and *onto* in English. Importantly, Path can sometimes be defective in Germanic, in which case it incorporates into v, giving rise to the type of directed motion constructions with locative PPs exemplified in (18):

(18) Gehrke (2008), apud Real Puigdollers (2010:131) John ran in the room.

When this happens, Place, always defective in these languages when embedded under PathP, cannot incorporate into Path, and shows peculiar freezing effects. In particular, the locative PP must be strictly adjacent to the verb, blocking, for instance, adverbial intervention and topicalisation, as shown in (19).8 Note, crucially, that (19)a is grammatical only in the locative reading in which in the house is interpreted as the place where John ran, rather than the goal of motion:

- (19) a. #John ran at top speed in the house. (Thomas 2001, apud Gehrke 2008:106) b. *In the house John ran. (Thomas 2003, apud Real Puigdollers 2010:132)
- In v-framed languages PathP is non-existent as a PP, since bounded paths are always encoded in the verb in these languages. 9 By contrast, PlaceP can be claimed to always correspond to a full-fledged spell-out domain. Thus, in directed motion constructions analogous to the English one of (18), the PP can freely be focus-fronted and clitic-left-dislocated, as shown in (20), and separated from the verb by some other constituent, as shown in (21), with the directional interpretation being preserved:

(20) Catalan

- a. A BUENOS AIRES volar la Txell. at Buenos Aires PST.3SG fly.INF the Txell 'Txell flew TO BUENOS AIRES.'
- b. A Buenos Aires hi volar va la Txell. at Buenos Aires there PST.3SG fly.INF the Txell 'It was Txell who flew to Buenos Aires.'
- (21) French; Real-Puigdollers (2010:137) L'oiseau volé rapidement sur

la fenêtre. the bird has flown quickly window the

'The bird flew quickly onto the window.'

We have thus seen that there is independent evidence for the claim that PathP is an autonomous syntactic unit, a non-defective phase, in s-framed languages and not in v-framed languages, and, conversely, that PlaceP is a non-defective phase in the latter but not in the former.

⁸ The rationale for the freezing effects shown by PPs headed by defective heads that have not incorporated into the upper phasal head can be made explicit once the complete functional projection of the directional (and locative) PP is considered, as first proposed in Koopman (2000) and assumed in den Dikken (2010) and Real Puigdollers (2010). Specifically, in defective PPs the outermost layer, CP, which is the original locus of phifeatures (Chomsky 2008:143f), is not projected. But only CPs, unlike smaller constituents in the extended projection, are "independently licensed constituents" (Koopman 2000:211; see also den Dikken 2010:80, 119, fn. 10). The reader is referred to the abovementioned works and also Gehrke (2008:105f) for more details, since this issue falls outside the scope of the present study.

⁹ Remember that I am not taking into account PPs headed by prepositions with the value "towards" or "until"/"up to", for reasons already exposed. Likewise, doubts arising with respect to PPs headed by the Spanish preposition a, conventionally translated as 'to' in English, should be dispelled. I believe that Fábregas (2007) and Acedo-Matellán & Real-Puigdollers (2014) provide enough convincing arguments that Spanish a is not directional, but locative, pace Demonte (2011).

3.2 Turning Talmy's variation into a parameter

It is easy to see how the above characterisation of the s-/v-framed distinction can be accommodated in a parametric theory of cross-linguistic variation. The functional head Path comes in two varieties:

(22) a. [-def] Path: provided with a whole set of phi-features b. [+def] Path: lacking a complete set of phi-features

The Path Parameter consists in allowing or not a non-defective Path:

(23) *The Path Parameter* Path can be [-def] or obligatorily [+def].

But how exactly do children make sense of the PLD to set this parameter? Fasanella (2014) and Fasanella & Fortuny (In press) have recently proposed an "Accessibility Condition" in the formulation of parameters, establishing that parameters are set by the acquirer exclusively by inspecting phonological and morphological features of the input. The parameter we are dealing with is very evidently related to this kind of inspection, since it directly affects the relationship between morphemes (or features) and morphs. Thus, in s-framed languages there is a one-to-one correspondence between the eventive component in the syntactic-semantic representation (morpheme) and the verbal root (morph), whereas in v-framed languages the verbal root actually encompasses two morphemes (v and Path). The acquirer is, therefore, presented with a construction expressing directed motion and she applies what Fasanella (2014) and Fasanella & Fortuny (In press) call the "Chunking Procedure", a basic data analysis procedure, to derive the relation between morphemes and morphs. At this point it seems natural to assume that the default option is for the acquirer to assign one morpheme to each morph that she ends up segmenting. From the perspective of the realisation of the verb in these two types of languages, this natural assumption implies that the default option is that corresponding to s-framed systems, in which v and Path are implemented in different morphs and, as modelled here, Path is [-def]. It follows, on the other hand, that the acquirer will have to set Path to [+def] if she finds evidence in the input that the morph segmented actually spans v and Path. This evidence necessarily consists in utterances where the verb expresses both the event and the direction of motion.

Importantly, as formulated in (23), the parameter forces defectivity of Path in v-framed languages, but also allows it in s-framed languages. As we saw in the previous section, s-framed English allows the incorporation of Path into v with some motion verbs. This is shown in directed motion constructions involving a locative, rather than a bounded path PP, and a motion verb like *run* or *jump* (see, for instance, Ramchand 2008:113, and Acedo-Matellán 2016:185f for additional evidence from Latin):

(24) Trevor jumped in the puddle. (Directional reading)

4 From a satellite- to verb-framed system: Latin to Romance, Ancient to Modern Greek

In this section I deal with a case of the resetting of the Path Parameter from [-def] to [+def]. There is evidence that Latin and Ancient Greek were s-framed languages. The path of motion in change of location predicates was expressed by an element distinct from the verb: a prefix. The monomorphemic verbs of v-framed languages expressing simple directed motion

typically correspond to bimorphemic verbs, i.e., involving a prefix, in these languages (Talmy 2000, Acedo-Matellán 2010, 2016, Asyllogistou, In progress):¹⁰

- (25) Latin; Directed motion verbs
 in-eo "in-go"
 ex-eo "out-go"
 de-scendo "down-climb" 'go down'
 a-scendo "away-climb" 'go up'
- (26) Ancient Greek; Directed motion verbs eis-érkhomai "into-go" eks-érkhomai "out-go" kat-érkhomai "down-go" an-érkhomai "up-go"

Unsurprisingly, both languages admitted the combination of path-denoting prefixes with manner of motion verbs in directed motion constructions, in a way reminiscent of prefixed verbs in the Slavic languages or of the combinations of manner verbs and particles in Germanic or Finno-Ugric (Acedo-Matellán 2016):

- (27) Latin; Suet. Diuus Augustus 94, 4; apud Acedo-Matellán (2016:103)
 Draconem repente ir-repsisse ad eam.
 snake(M)ACC.SG suddenly in-glide.INF.PFV at her.ACC
 'On a sudden a snake glided in towards her.'
- (28) Ancient Greek; Thuc. 4, 25 and 2, 79, apud Acedo-Matellán (2016:217)

 Tô:n andrô:n apo-kolumbe:sánto:n.
 the.GEN.M.PL man(M)GEN.PL away-swim.PTCP.AOR.GEN.M.SG
 'The men having swum away.'

In both languages, the prefixation strategy permitted the verb to appear with unselected objects, suggesting that the prefix behaved as a predicate independently of the verb (Acedo-Matellán & Mateu 2013). Thus, in the next examples neither *alienos fructus* 'someone else's fruits' nor *tà ónta* 'the possessions' are selected by the simple verbs *canto* 'enchant' and *kubeúo*: 'gamble', respectively:

- (29) Latin; Sen. Nat. 4b, 7, 2; apud Acedo-Matellán (2016:117)

 Ne quis alienos fructus
 lest anybody.NOM of_another.ACC.PL fruit.ACC.PL

 *(ex-)cantassit.
 out-enchant.PLUPRF.SBJV.3SG

 'Lest anyone should obtain someone else's fruits through enchantment.'
- (30) Ancient Greek Lys. 14, 27; apud Meillet & Vendryès (1968:200)

 *(Kata-)kubeúsas tà ónta.
 down-gamble.PTCP.AOR.NOM.M.SG the.ACC.N.PL possession(N)ACC.PL

 'Having gambled away his possessions.'

 10 The transliteration of Ancient Greek, involving the use of the different accents and representing <Y, v> as <U, v>, is my own.

It is well known, on the other hand, that Romance and Modern Greek show a v-framed behaviour (Talmy 2000). First, they count with a range of monomorphemic verbs expressing simple directed motion, without any manner component:

Table 1. Sample of non-manner directed motion verbs in Romance and Greek

	'go in'; 'put in'	'go out'; 'take out'	'go down'; 'bring down'	'go up'; 'bring up'
Portuguese	entrar; meter	sair; tirar	descer	subir
Galician	entrar; meter	saír; sacar	baixar	subir
Asturian	entrar; meter	salir; sacar	baxar	xubir
Spanish	entrar; meter	salir; sacar	bajar	subir
Catalan	entrar; ficar	eixir; treure	baixar	pujar
Occitan	dintrar; ficar	sortir	davalar	pojar
French	entrer	sortir	descendre	monter
Italian	entrare	uscire	scendere	salire
Romanian	a intra; a băga	a ieși; a scoate	a coborî	a urca
Greek	béno; bázo	vγéno; ¹¹ vγázo	katevéno; katevázo	anevéno; anevázo

In these languages there is no way to express a bounded path of motion non-verbally. Locative PPs can combine with a manner of motion verb to yield a directed motion interpretation only if the verb also expresses directionality or "forward motion" in the sense of Nichols (2008) (cited by den Dikken 2010:47):¹²

(31) Spanish

Nicolás ha corrido/?gateado/*bailado a la habitación. (Directional sense intended) Nicolás has run/crawled/danced at the room.

(32) *Romanian; Baciu (2006:43-44)*

- a. Maria a fugit în parc. Maria has run in park
 - 'Maria has ran into the park.'
- b. *Barca a plutit sub pod. (Directional sense intended) boat.the has floated under bridge.
 - 'The boat has floated under the bridge.'

(33) Greek; Horrocks (2004:183)

- a. O Giánnis píðikse s-to pátoma. the.NOM Giannis.NOM jumped at-the.ACC floor.ACC 'Giannis jumped onto the floor.'
- b. I bála pétakse s-ton kipo. the.NOM ball.NOM flew at-the.ACC garden.ACC
- c. Kolímbise s-to nisí.
 swam.3sG at-the.ACC island.ACC
 '(S)he swam on/by the island.' / *'(S)he swam to the island.'

^{&#}x27;Nicolás has run/crawled/danced to the room.'

¹¹ I have chosen to transliterate the Modern Greek data as phonologically as possible, in order for the diachronic effects discussed to be clear.

¹² See Section 3.1 for relevant remarks on directional prepositions like "towards" or delimiters like "until, up to" in v-framed languages.

So how was the s- to v-framed change effected in these languages? In particular, what changes in the PLD cued the acquisition of a v-framed grammar in a subgroup of acquirers (Lightfoot 2006)? Since the typological distinction has to do with the expression of directed motion as distributed between the verb and a non-verbal constituent, we have to take a look at these two syntactic elements.

There are basically four types of verbs of directed motion in Romance and Greek according to the kind of verb that originated them in Latin (see Iacobini 2012:364) and Ancient Greek.¹³ The first involves non-prefixed non-manner verbs. As fas as I know, this category comprises only the Latin verb *intrare* 'enter':¹⁴

(34) Lat. intrare 'enter, penetrate' > Gal. entrar, It. entrare 'go in'

Second, many prefixed verbs yielded a monomorphemic verb of directed motion through general diachronic phonetic processes erasing the morphological boundary between the prefix and the verbal root:

- (35) Lat. ex-ire "out-go" > Cat. eixir /esir/, It. uscire, Rom. a ieși 'go out'
- (36) Lat. de-scendere "down-climb" > Port. descer 'go down'
- (37) Lat. ex-cutere "shake out" > Rom. (a) scoate 'take out' (Meyer-Lübke 1911:227)
- (38) A. Gr. em-baino: "in-step" > Gr. béno 'go in'
- (39) A. Gr. ek-baino: "out-step" > Gr. vyéno 'go out'
- (40) A. Gr. *em-bállo*: "in-throw" > Gr. perfective *bálo* 'put in' (Méndez Dosuna 1997:584) (imperfective *bázo* < *em-bibázo*: "in-cause to go")
- (41) A. Gr. *ek-bállo*: "out-throw" > Gr. perfective *vyálo* 'take out' (imperfective *vyázo* < *ek-bibázo*: "out-cause to go")

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¹³ If not otherwise indicated, etymologies have been extracted from Stolova (2015) for Romance and from the *Lexiko tēs koinēs neoellēnikēs* (by the Instituuto Neoellēnikōn Spoudōn, Hidryma Manolē Triantaphyllidē, 1998) for Greek.

¹⁴ There is debate about the etymology of Lat. *intrare* 'enter', in particular, whether it was a prefixed verb (*intrare* "in-pass", on a reconstructed *trare related to the preposition trans 'beyond') or a verbalisation of the adjective *interus* 'inner' (containing the same prefix *in* 'in' and the comparative sufix -ter). See Stolova (2015:38) for further details and relevant references. In any case, it is worth pointing out that, despite appearances, neither *intrare* in Latin nor its cognate *enter* in English seem to behave as the path verbs typical of v-framed languages, since they allow to be construed either with an accusative object (cf. i) or with a directional PP (cf. ii):

⁽i) a. Regnum intrarit. kingdom.ACC enter.PRF.SBJV.3SG ('He entered his kingdom.'; Cic. *Rab. Post.* 22, 10)

b. [M]y father entered the house. (Google Books)

⁽ii) a. Intravit in hortos. enter.PRF.SBJV.3SG in garden.ACC.PL ('He entered into the gardens.'; Ov. *Met.* 14, 654)

b. [T]hey entered into the house of Simon and Andrew. (Google Books)

Third, we witness also quite a few non-prefixed manner of motion verbs becoming path verbs:

- (42) Lat. salire 'jump' > It. salire 'go up', Gal. sair, Sp. salir 'go out'
- (43) Lat. mittere 'throw' > Sp. meter 'put in', Fr. mettre 'put' (Meyer-Lübke 1911:411)
- (44) Lat. trahere 'drag' > Cat. treure 'take out' (Meyer-Lübke 1911:671)
- (45) Lat. oriri 'appear, rise' $> \star$ oricare¹⁵ > Rom. (a) urca 'go up'
- (46) Lat. figere 'stick, jam' > *figicare > Occ. ficar 'put in' (Meyer-Lübke 1911:247)
- (47) A. Gr. *bállo*: 'throw' > Gr. perfective *válo* 'put' (imperfective *vázo* < *bibázo*: 'cause to go')

Finally we find denominal verbs based on a noun that names a landscape feature that can be identified with a general Ground:

- (48) Lat. *montare (on mons, montis 'mount') > Fr. monter 'go up'
- (49) Lat. *podiare (on podium 'elevated place, height') > Cat. pujar, Occ. pojar 'go up'
- (50) Lat. *advallare (on ad 'at' and vallis 'valley') > Old Cat. avallar > Cat. davallar 'go down' (cf. also Occ. davalar)

Importantly, these strategies do not seem to have developed at the same time. In particular, the 4th strategy seems to be a clear innovation of Late Latin and Proto-Romance (Iacobini 2012:365), since all the derived verbs from which the modern Romance verbs originated are a reconstruction, i.e., they are not attested in Latin: *montare (on mons, montis 'mount') > Fr. monter 'go up' *podiare > Cat. pujar, Occ. pojar 'go up'. With respect to the 3rd strategy, Iacobini (2012:379) claims that it must have been concomitant to the 2nd one (the loss of the prefixation mechanism). However, there are actually original manner verbs unattested in Latin itself: *oricare 'appear, rise' > Rom. (a) urca 'go up', *figicare 'stick, jam' > Cat. ficar 'put in'. It thus seems reasonable to think that the 1st and the 2nd kinds of original verbs were the first developments. I put the first kind of verbs aside, since it only comprises one verb (Lat. intrare 'go in, penetrate'), which, according to some theories, may actually fall within the 2nd class of verbs (see footnote 14).

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¹⁵ The star (★) distinguishes reconstructed, i.e., not attested lexemes of the Classical language. Crucially, it does not convey ungrammaticality, for which the asterisk (★) is used.

¹⁶ Even when the modern verb is attested in older stages of Romance it is not necessarily already grammaticalised as a path verb. For instance, the first cases of Catalan *ficar* as a pure path verb 'put in', and not as a manner verb meaning 'stick, jam', are attested from the 15th c. (Acedo-Matellán & Mateu, In progress).

The second factor in the cueing of a new v-framed grammar was the complete or partial loss of the non-verbal reflection of the presence of Path. One such reflection is case morphology. Latin and Ancient Greek, as does German, marked the goal character of PPs with accusative case on the Ground DP. Other cases (ablative in Latin, dative or genitive in Greek) licensed a locative reading of the PP. This is shown by the following minimal pairs in Latin and Ancient Greek, respectively:

- (51) Latin; Suet. 5, 1 and Suet. 8, 2
 - a. Natus est Romae in *Palatio*. born.M.NOM.S is Roma.LOC in Palace.ABL 'He was born in Rome, in the Palace.'
 - b. In *Palatium* cucurrerunt. in palace.ACC ran.3PL 'They ran into the Palace.'
- (52) Ancient Greek; Il. 16, 700 and Il. 6, 386
 - a. Epì *púrgou* éste: upon tower.GEN stand.AOR.3SG 'He stood upon the tower.'
 - b. Epì *púrgon* ébe: upon tower.ACC step.AOR.3SG 'He went upon the tower.'

The loss of case distinctions eventually made it impossible to distinguish, for certain prepositions, a directional from a locative reading. In Greek a three-case system is maintained. However, all prepositions in the modern language take accusative case. The same observation can be made with respect to the two-case system shown in Old French, which distinguished exclusively between nominative and non-nominative (Alkire & Rosen 2010:190). Beyond PPs with an accusative Ground DP, Classical Latin could express directionality with particles. This distinction was also lost in later stages. Thus, for instance, as pointed out by Iacobini & Fagard (2011:10) and Iacobini (2012:372), the archaic and classical distinction between *intus* 'inside' and *intro* 'to the inside' or between *foris* 'outside' and *foras* 'out through the doors, out (dir.)', which still showed a difference in case marking, was lost in later stages.

All in all, the languages lost alls traces of the non-verbal reflection of the presence of Path in constructions expressing directed motion: verbal prefixes of prepositional nature, particles, and accusative case in PPs. With respect to prefixes, the old prefixed verbs became monomorphemic, since the morphological boundary between the prefix and the verbal root was blurred through phonetic change. ¹⁷ Consequently, at some stage one generation of acquirers was exposed to a series of verbs that, keeping their directed motion meaning, had become monomorphemic:

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¹⁷ I assume that the attachment of the Path-Place prefix onto the verb in Latin and Ancient Greek took place through a post-syntactic morphological mechanism, and should not, in any case, be confounded with the incorporation of Path into v proposed here to be effective in v-framed languages (see section 3.1). Different is the fact that this morphological association between Path and v, not obtained in other s-framed languages like English or Hungarian, facilitated the emergence of the v-framed system in Romance and Greek, as described below. See Acedo-Matellán (2010, 2016).

(53) Lat. ex-i-re > Cat. eix-ir /e f-ir/ out-go-INF go.out-INF (54) A. Gr. em-baín-o: > Gr. bén-o go.in-1SG

The new roots involved in these verbs, like Gr. *BEN* 'go in', could only be analysed by these acquirers as *spanning* v, Path and the root:

(55) Greek
bén-o s-to spíti.
go.in-1SG at-the.acc house.acc

[vP-PathP bén-o [PlaceP se [DP to spíti]]]
v+Path+ROOT Place

The reanalysis was carried out on the basis of two facts. First, the mentioned non-distinction between the motion component and the path component in the verb, due to the fusion of the prefix and the verb, could not lead the acquirer to posit a distinct morph for Path, the default analysis (see section 3.2). Second, the collapse of the case system also hindered an analysis of the PP as encoding directionality, since the very same PP was used in the expression of location, as shown by the following Modern and Ancient Greek contrasts:

(56) Greek a. bén-o s-to spíti. A. Gr.eis tòn oîkon. go.in-1SG at-the.ACC house.ACC into the.ACC house.ACC b. ime A. Gr. en tô:i oîko:i s-to spíti. I am at-the.ACC house.ACC in the.DAT house.DAT

Crucially, the above reanalysis is based, within the theoretical perspective adopted here, on the assumption that Path is no longer a phase in the new grammar, and, hence, able to head a spell-out domain of its own. Path is therefore assigned the value [+def] by the new speakers.

The loss of the distinct morphological expression of Path as a non-verbal element paved the way for manner verbs combined with PPs in directed motion expressions to lose their manner interpretation and be reanalysed as path verbs. This affected most of all those manner roots that already involved forward motion in the sense of Nichols (2008) or instantaneous acts rather than activities, in the sense of Slobin (2004):

- (57) Lat. salire 'leap, jump' > Sp. salir 'go/come out'
 a. Arbusta repente e terra salierunt. (On Lucr. 1, 184)
 - bushes.NOM suddenly out earth.ABL leap.PFV. 3PL
 - 'Bushes suddenly leapt out of the turf.'
 - b. De repente salieron arbustos de la tierra. suddenly come.out.PRF.3PL bushes from the earth 'Bushes suddenly came out of the earth.'
- (58) A. Gr. bállo: 'throw' > Gr. perfective válo (imperfective vázo) 'put'
 a. Es oînon bále fármakon (Od. 4, 220, apud Liddel & Scott 1940) into wine.ACC threw.3SG drug.ACC 'He threw a drug into the wine.'

b. Évale éna fármako s-ton íno put.3sG a drug at-the wine 'He put a drug in the wine.'

Likewise, the new v-framed system readily allowed the formation of new path verbs based on nouns denoting a figure of landscape metaphorised into a general abstract goal like 'up' or 'down', as shown in (48) through (50).¹⁸

It is easy to argue that the cause of the change was due to reasons independent of the expression of directed motion (see also Iacobini & Fagard 2011:10-11). In particular, the phonetic erosion affecting case endings and prefixed verbs was general in the language (see Méndez Dosuna 1997). For instance, the phonetic change from Lat. *ex-i-re* /eksi:re/ out-go-INF to Cat. *eix-i-r* /eʃir/ go.out-TV-INF, involving the vocalisation and disappearance of the voiceless velar /k/ in coda position and the concomitant palatalisation of the following dental fricative /s/, is widespread in the evolution of Catalan and other Romance languages:

(59) Lat. *texere* /teksere/ 'weave' > Cat. *teixir* /teʃir/ Lat. *axe*(*m*) /akse/ 'axis' > Cat. *eix* /eʃ/

Likewise, the change from A. Gr. *em-baín-o*: "in-step" to Gr. *bén-o* 'go in', involving assimilation of the nasal to the following bilabial stop, is widely attested within root material, i.e., outside morpheme boundaries, in Greek:

(60) A. Gr. kolumbáo: /kolymbao:/ 'swim' > Gr. kolibáo /kolibao/

The explanation for the s- to v-framed change offered here does not resort to language contact. On the one hand, the phonological process that brought about the new monomorphemic verbs of directed motion and the loss of case endings were, as just shown, general in the language, and largely independent of the languages with which Latin and Ancient Greek entered in contact, since many of them are attested in many or the majority of variants. On the other hand, there are other reasons to reject the role of contact in the development of a v-framed system in Romance and Greek. First, where Latin and Greek came into contact with other languages, they did so as dominant languages, and not as subordinate languages (see Sala 2013:190 for Latin and Horrocks 2010:227 for Greek). Thus, it is improbable that a systemic change such as the s- to v-framed one could have been triggered by languages that were in a relation of subordination to Latin and Greek, if indeed such asymmetries determine the sense in which diachronic change takes place (Thomason 2001:66). Second, all Romance languages and all varieties of Greek ended up being v-framed. In the case of Latin, this was in spite of the fact that these languages entered into contact with a variety of languages, including s-framed ones, like Celtic or Germanic.

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¹⁸ It seems that Late Latin witnessed a remarkable increase in the number of prefixed verbs incorporating a Ground, either physical or metaphorical, as pointed out by Crocco Galèas & Iacobini (1993). See also Acedo-Matellán (2006) and Acedo-Matellán & Mateu (2013) for further related remarks.

¹⁹ Importantly, the system of prefixed verbs expressing directed motion or building telic events out of atelic ones shown in Old French (Buridant 1995, 2000; Dufresne, Dupuis & Tremblay 2003) seems to be an innovation of this language, rather than a relic from Latin, since they are not found in neither Latin nor in all Old Romance (see also Iacobini 2015:640):

5 From a verb- to a satellite-framed system: the evolution of Rhaeto-Romance

In this section I explore an example of the reverse resetting of the mesoparameter proposed: the one involved in the change from a v-framed into an s-framed system. The case study is the evolution of Rhaeto-Romance in the varieties spoken in Switzerland, as compared with the proximate Northern Italian dialects and Italian itself.

5.1 Rhaeto-Romance vs. other Romance varieties

Several authors have suggested the s-framed nature of the varieties of Romance spoken in Northern Italy and Switzerland, encompassing Rhaeto-Romance: Iacobini & Masini (2006) for Italian, Berthele (2006) and Iacobini (2012) for Rhaeto-Romance, among others. Specifically, it has been observed that these varieties of Romance, by contrast with other varieties both in Central and Western and Eastern Romance, make a wide use of verb particle combinations, a characteristic of s-framed languages (Talmy 2000):²⁰

(61) Italian; Iacobini & Masini (2006:156)

venire giù; lavare via; mettere sotto

come down wash away put under 'to run over'

(62) Trentino dialects; Iacobini (2015:647)

sentarse zò; nar via; rampegarse su sit down go away climb up

(63) Venetan dialects; Benincà & Poletto (2006:10)

I ga magnà fora tuto. they have eaten out everything 'They ate up everything.'

(64) Rhaeto-Romance (Ladin of Val Badia); Mair (1984:410)

lavè jö; damanè dô; taié ia wash away ask after 'check' cut off

(65) Rhaeto-Romance (Vallader Romansh); Andry 1993:20

far oura; trar aint; quintar sü do out draw in count up 'open' 'put on' 'tell, narrate'

Facts such as the above have been levelled as a problem for Talmy's classification of Romance as a v-framed language, particularly with respect to Italian, as the following excerpts by different scholars show:

(i) Old French; Dufresne, Dupuis & Tremblay (2003)

s'=a-penser (Lat. *ad-pensare) en-aimer (Lat. *in-amare) par-jeter (Lat. *per-iectare)

REFL=at-think in-love through-throw 'realise' 'fall in love' 'throw away'

See also Bartra & Mateu (2005) for similar facts in Old Catalan. See next section on Rhaeto-Rhomance.

²⁰ See also similar constructions in Friulian Rhaeto-Romance (Vicario 1997), the Appennine dialects (Begioni 2003), Bergamasque (Bernini 2012) and the varieties of Rhaeto-Romance spoken in the Surselva and Val Badia (Buchli 2014). See also lists of particle verbs in different Romansh varieties in Ebneter (1994). A comparison between verb particle constructions in Rhaeto-Romance and similar constructions in Portuguese is offered by Viaro (2000).

(66) Masini (2005:156-157)

"[...] V and P are not to be considered separate constituents, but rather parts of a unique verbal construction where the V functions as the head and the P as a modifier, or 'satellite' in Talmy's (1985) terminology."

(67) Iacobini & Masini (2006:156, 163)

"The presence of VPCs [Verb Particle Constructions; my clarification: VA] in Italian challenges the well-known generalization about "frame-based languages" and "satellite-based languages" expounded in Talmy (1985) [...]."

"[...] it is evident that Italian does not conform to Talmy's generalization, since it behaves more like English than Spanish. Of course, this does not mean that Italian lacks verbal roots incorporating Path. Rather, it means that this is not the privileged way of realizing Path in present-day Italian. Indeed, Italian displays a hybrid (and to a certain extent redundant) system of motion verbs."

(68) *Simone* (2008:23) (my translation:VA)

"Italian would at the same time be (together with English, German, Dutch, Russian...) in the category of satellite-framed languages."

(69) Schøsler (2008:128) (my translation:VA)

"In Italian, manner of motion is expressed either through the verbal lexeme (ballare ['dance'], flottare ['float'], nuotare ['swim'], saltare ['jump']), or through a gerund [...]."

(70) *Iacobini (2012:367)*

"Some minor varieties which use post-verbal particles as the principal means of expressing direction of motion (especially northeastern dialects of Italy and Rhaeto-Romance languages) can be classified unequivocally as Satellite-framed. With regard to major standard Romance languages, current Italian displays a larger number of features that are typical of the Satellite-framed type than either Spanish or French."

Mateu & Rigau (2009, 2010) have disputed the claim that the availability of particle verb constructions is a problem for the classification of Italian in particular, or Romance in general, as v-framed in the sense of Talmy. Specifically, these authors have pointed out that the verb-particle combinations licensed in Romance are formed on verbs that already encode directionality, like It. *correre* 'run', contrasting with non-directional verbs like *danzare* 'dance':²¹

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²¹ Iacobini (2015:642) acknowledges a difference between particle verbs in Germanic and Romance: "Unlike Germanic languages, the most frequently employed verbs in Romance PVs [Particle Verbs; my clarification: VA] are generic verbs of motion, verbs of putting and removing, and path verbs. The manner of motion verbs that preferentially occur in Romance PVs expressing displacement or boundary-crossing events are those "that are not readily conceived of as activities, but, rather, as 'instantaneous' acts" Slobin (2004: 226), i.e. verbs that either encode a rapid, often sudden movement (e.g., 'to jump'), or verbs which express an orientation: e.g., removal from a reference point (e.g., It. *sbucare* 'to come out suddenly, pop out', *scappare* 'to escape') or movement toward a goal (e.g., It. *irrompere* 'to burst into', *scagliarsi* 'to lunge', *tuffarsi* 'to dive')."

(71) *Italian; Mateu & Rigau (2010:243)*

a. Gianni é corso via. Gianni is run away 'Gianni ran away.'

b. *Gianni é danzato via. Gianni is danced away 'Gianni danced away.'

As pointed out by Mateu & Rigau (2010), the fact that the verb encodes directionality independently from the particle explains why the particle is omissible in certain particle-verb combinations expressing removal in varieties of Italian Romance, without there being a change in aspectual meaning:

(72) Italian; Masini (2005:149)

- a. Luca ha lavato via la macchia. Luca has washed away the stain
- b. Luca ha lavato la macchia subito. Luca has washed the stain immediately 'Luca washed away the stain immediately.'

By contrast, if the particle is dropped in Germanic particle verbs, the meaning changes substantially. In the case of particle verbs of removal, the removal sense is lost:

(73) Mateu & Rigau (2010:262) John washed the stain ??(away).

(74) German

Die Flecken *(aus)-waschen the stains out-wash.INF 'Wash the stains away.'

That the particle is merely reinforcing the directionality expressed in the verb is further brought evidence to by the fact that these verb-particle combinations do not admit unselected objects as the one in the next English example (see also McIntyre 2004):

(75) *Mateu* (2012:265)
John worked his debts *(off).

(76) Piedmont Italian

a. *Luigi ha lavorato via i debiti.Luigi has worked away the debts

b. *Hanno tagliato giù l'impiccho. they have cut.PTCP down the=hanged man

c. *Maria aveva dormito/ballato via le sue preoccupazioni.

Maria had slept/danced away her worries

d. *Maria ha scritto via il mattino. Maria has write.PTCP away the morning

Thus, it seems that the particle in the above Italian examples is only apparently encoding path, i.e., it is only apparently a satellite in Talmy's terms (pace Masini 2005). Concentrating

on predicates of removal like *lavare via* 'wash away', these predicates in Italian are more similar to those found in other Romance languages than those found in s-framed German or English, in that in the latter the particle is obligatory. The difference between Italian and Catalan or Spanish, for instance, lies in the fact that in the latter no particle at all is used:

(77) Italian; Masini (2005:149)

Luca ha lavato (via) la macchia. 'Luca has washed away the stain.'

(78) Catalan

Rentar les taques. wash the stains 'Wash the stains away.'

(79) Spanish

Lavar las manchas. wash the stains 'Wash the stains away.'

(80) German

Die Flecken *(aus)-waschen the stains out-wash.INF 'Wash the stains away.'

I concur with Mateu & Rigau's (2010) observations that Italian Romance, at least the varieties referred to by Masini (2005), among others, is only apparently s-framed. However, I claim that at least some varieties of Rhaeto-Romance, as spoken in Switzerland, do behave like s-framed, according to their tests. I present observations based on a battery of grammaticality judgments elicited from 4 different native speakers of the Surselvan (Laax), Vallader (Zuoz) and Puter (Schlarigna, Samedan) dialects of Romansh, i.e., Swiss Rhaeto-Romance, represented on the next Romansh dialectal map of the canton of Grisons:

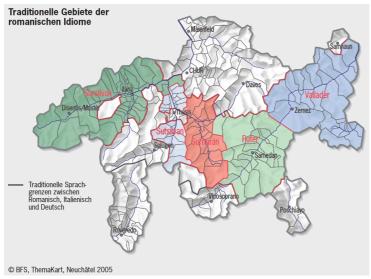


Figure 1. Distribution of the 5 official varieties (*Schriftsidiome*) of Romansh in the canton of Grisons, in South East Switzerland (from Furer 2005:22)

Let us begin with predicates of manner of removal. In these varieties the particle seems compulsory for the removal sense to be maintained:

(81) Romansh; 'wash away'

a. Surselvan

Lavar *(ora) ils tacs. wash out the stains

b. Vallader

La chamischa eira plain maclas
the shirt was full stains
ma Victoria las ho lavedas *(our).
but Victoria them has wash.PTCP.F.PL out
'The shirt was full of stains but Victoria has washed them out.'

c. Puter

La chamischa (d')eira plaina da maclas the shirt was full.F of stains ma Selina las ho lavedas */?(our).²² but Selina them has wash.PTCP.F.PL out 'The shirt was full of stains but Selina has washed them out.'

(82) Romansh; 'scrape off'

a. Surselvan

Sgarar *(naven/giu) la vernisch. scrape away/down the paint

b. Vallader/Puter

Selina ho cumpro üna chadregia antica
Selina has buy.PTCP an old chair
e Gian ho sgratto *(davent/giò) la vernisch.
and Gian has scrape.PTCP away/down the paint
'Selina has bought an old chair and Gian has scraped away the paint.'

(83) Romansh; 'scratch off'

a. Surselvan

Sgarar *(naven/giu) l'etichetta. scratch away/down the label 'Scratch away the label.'

b. Vallader/Puter

Ad eira üna etiquetta sül cudesch there was a label on the book ma Gian l'=ho raspeda *(davent/giò). but Gian it=has scratch.PTCP.F away/down 'There was a label on the book but Gian has scratched it away.'

(84) Romansh; 'scrub away'

a. Surselvan

Fruschar *(ora/naven) las taccas da tschera. scrub out/away the wax stains

²² I use a slash to represent divergent grammaticality judgements.

b. Vallader/Puter

```
A d'eiran maclas da tschaira sül s-chabè
there were wax stains on the chair
ma Selina las ho sfruschedas *(davent).
but Selina them has scrub.PTCP.F.PL away
'There were wax stains on the chair but Selina has scrubbed them away.'
```

The obligatoriness of the particle in the above predicates suggests that the verb cannot encode directionality in these varieties. Other facts point to the s-framed nature of Rhaeto-Romance, at least in the varieties of Romansh studied. For instance, surface-contact verbs such as 'rub' can be construed with directional particles in transitive constructions expressing illative motion, as in English:

(85) Romansh; 'rub in'

a. Surselvan

Gion metta si crema sils mauns e fruscha en ella. Gion puts on cream on the hands and rubs in 3SG.ACC.F 'Gion puts cream on his hands and rubs it in.'

b. Vallader/Puter

Gian s'=ho mis ün pô crema süls mauns Gion REFL=has put.PTCP a little cream on the hands e l'=ho sfruscheda aint. and it=has rub.PTCP.F in 'Gion has put a little cream on his hands and has rubbed it in.'

Languages like Catalan and also the variety of Italian spoken in Piedmont completely forbid these constructions:

(86) Catalan; 'rub in'

*En Joan s'=ha posat una mica de crema sobre les mans Joan REFL=has put.PTCP a little cream on the hands i se l'=ha fregada en-dins. and REFL it=has rub.PTCP.F in-inside

(87) Piedmont Italian; 'rub in'

*Gianni si è meso un po di crema sulle mani Gianni REFL is put.PTCP a little cream on the hands e l'=ha fregata dentro. and it=has rub.PTCP.F inside

All Romansh speakers allow a great variety of manner of motion verbs in directed motion constructions based both on particles —see (88) and (89)— and PPs —(90) and (91). While some verbs that are more saliently manner, like 'dance' or 'walk', generate less agreement, all of the following sentences, except (88)e, were deemed fully grammatical by at least one speaker:

- (88) Romansh (Surs.); directed motion constructions with manner verbs and particles
 - a. Maria cuora viadora. Maria runs thither.out 'Maria runs out (there).'

- b. La tschitta sgola neuaden.
 The butterfly flies hither.in
 'The butterfly flies in (here).'
- c. ✓/*Gian se-noda naven.
 Gian REFL-swims away
 'Gian swims away.'
- d. Il bal se-rucla neuaden. the ball REFL-rolls hither.in 'The ball rolls in (here).'
- e. */?Maria salta viaden.

 Maria dances thither.in'
 'Maria dances in.'
- f. ✓/*Gion camina naven.

Gion walks away

- g. g. /*Il pop se-ruschna neuaden.
 the baby REFL-crawls hither.in
 'The baby crawls in (here).'
- (89) Romansh (Vall./Put.); directed motion constructions with manner verbs and particles
 - a. Victoria es currida (in)our.
 Victoria is run.PTCP.F (in)out
 - 'Victoria has run out.'
 - b. La chüralla es svuleda (in)aint. the butterfly is fly.PTCP.F (in)inside 'The butterfly has flown in.'

 - d. Selina es chamineda (in)giò. Selina is walk.PTCP.F (in)down 'Selina has walked down.'
 - e. Victoria es nudeda davent/(in)aint. Victoria is swim.PTCP.F away/(in)inside 'Victoria has swum away/in.'
 - f. La poppa s'=es/s'=ho struzcheda (in)sü. the baby REFL=is/REFL=has crawl.PTCP.F (in)up 'The baby has crawled up.'
 - g. La serp es serpageda/struzcheda davent. the snake is crawl.PTCP.F away 'The snake has crawled away.'
 - h. La balla es rudleda (in)our. the ball is roll.PTCP.F (in)out 'The ball has rolled out.'
- (90) Romansh (Surs.); directed motion constructions with manner verbs and PPs
 - a. Gion cuora egl iert. Gion runs in.the garden 'Gion runs into the garden.'

- b. La tschitta sgola egl iert. the butterfly flies in.the garden 'The butterfly flies into the garden.'
- c. ✓/*La tschitta sgola si la flur. the butterfly flies on the flower 'The butterfly flies onto the flower.'
- d. ✓/*Gion salta egl iert.
 Gion dances in.the garden
 'Gion dances into the garden.'
- e. Gion camina egl iert. Gion walks in.the garden 'Gion walks into the garden.'
- f. /*Gion se-noda ella tauna.
 Gian REFL-swims in.the cave
 'Gian swims into the cave.'
- g. Il pop se-ruschna ella combra. the baby REFL-crawls in the room 'The baby crawls into the room.'
- h. Il bal rolla ella combra. the ball rolls in.the room 'The ball rolls into the room.'
- (91) Romansh (Vall./Put.); directed motion constructions with manner verbs and PPs
 - a. Gian es currieu i'=l curtin.
 Gian is run.PTCP.M in=the garden
 'Gian has run into the garden.'
 - b. La chüralla es svuleda i'=1 curtin. the butterfly is fly.PTCP.F in=the garden 'The butterfly has flown into the garden.'
 - c. La chüralla es svuleda sün la flur. the butterfly is fly.PTCP.F on the flower 'The butterfly has flown onto the flower.'
 - d. \(\subseteq \text{*Victoriaes suteda} \) i'=1 curtin. Victoria is dance.PTCP.F in=the garden 'Victoria has danced into the garden.'
 - e. Victoria es chamineda i'=l curtin. Victoria is walk.PTCP.F in=the garden 'Victoria has walked into the garden.'
 - f. Gian es nudo aint illa grotta. Gian is swim.PTCP.M inside in.the cave 'Gian has swum into the cave.'
 - g. La serp s'=es serpageda aint illa staunza. the snake REFL=is crawl.PTCP.F inside in.the room 'The snake has crawled into the room.'
 - h. La poppa s'=es/s'=ho struzcheda suot il let. the baby REFL=is/REFL=has crawl.PTCP.F under the bed 'The baby has crawled under the bed.'
 - i. Il chavagl es galoppo i'=l curtin. the horse is gallop.PTCP.M in=the garden 'The horse has galloped into the garden.'

Importantly, pure manner of motion verbs like 'dance' are utterly out in directed motion constructions in Italian, according to Folli & Ramchand (2005:97):

(92) Italian verbs marked as non-directional according to Folli & Ramchand (2005:97) camminare 'walk' galoppare 'gallop' danzare 'dance' nuotare 'swim'

As expected, simple monomorphemic verbs encoding path of motion are largely non-existent in colloquial Rhaeto-Romance. Instead, a simple verb like ir 'go' or vegnir (Surs.)/gnir (Vall./Put.) 'come' is used combined with a directional particle:

Table 2. Expression of some simple path predicates in 3 Romansh varieties

	ʻgo in'	'go out'	'go down'	ʻgo up'	'take away'
Surselvan	ir en (entrar)	ir giuado/o	ir giu	ir si	prender naven
Vallader	ir aint	ir oura	ir ingiò	ir insü	tour davent
Puter	ir aint (%entrer)	ir oura (%sortir)	ir ingiò	ir insü (%saglir)	piglier davent

When it comes to verb-particle constructions involving unselected objects, cross-speaker and cross-dialectal variation is greater. Speakers of Surselvan do accept at least a subset of them:

- (93) Romansh (Surs.); verb particle constructions with unselected objects
 - a. Luvrar ora la pasta. out the pasta work
 - 'Knead up the pasta.'
 - b. Se-luvrar en. (Cf. German sich ein-arbeiten; McIntyre 2003) REFL-work in
 - "To learn the ropes."
 - c. ✓/*Se-luvrar giu. (Cf. German sich über-arbeiten) REFL-work down
 - 'To overwork.'
 - d. ✓/*Beiber/Magliar/Fimar ils problems. naven drink/eat/smoke the problems awav
 - e. ✓/*Luvrar naven ils deivets. work awav the debts
 - f. ✓/*Durmir/saltar ora/naven ils quitaus. out/away the worries sleep/dance

A speaker fluent in the 3 varieties and who is a native speaker of Vallader and Puter also accepts them in these latter varieties. However, the native speakers that only know Vallader and Puter largely do not accept them (importantly, (94)e is accepted by all speakers, but not by my Italian informants from Piedmont and Trentino):

- (94) Romansh (Vall./Put.); verb particle constructions with unselected objects
 - a. ✓/?/*Luis baiva/mangia/füma davent sieus problems. Luis

- b. \checkmark /?/*Luis ho lavuro giò sieus debits. Luis has work.PTCP down his debts 'Luis has worked away his debts.'
- c. /*Maria ho durmieu davent sieus pissers.

 Maria has sleep.PTCP away her worries
 'Maria has slept her worries away.'
- d. /*Maria ho ballà via seis pissers.

 Maria has sleep.PTCP away her worries

 'Maria has slept her worries away.'
- e. Els haun taglio giò l'impicho. they have cut.PTCP down the=hanged_man 'They have cut down the hanged man.'

Finally, and quite strikingly, the native speaker of Surselvan —but not the rest of the informants— accepts a subset of adjectival resultative constructions.²³ Additionally, as can be seen in (95)b, the result adjective is obligatorily not inflected for agreement with the direct object, exactly as in German:

- (95) Romansh (Surs.); adjectival resultative constructions
 - a. Gion petga plat il metal. Gion beats flat the metal
 - b. Gion beiba vit/*vita la butteglia.
 Gion drinks empty/empty.F the bottle

 Cf. Germ. Gion trinkt die Flasche leer/*leere.

 Gion drinks the bottle empty/*empty.F

Importantly, the above resultative constructions are strong in the sense of Washio (1997), that is, the verb does not imply the state encoded in the result adjective. Thus, for instance, in (95)b the drinking does not entail the emptiness of the bottle. This means that the adjective is really a primary predicate, the verb encoding the manner in which the event takes place. As pointed out by Mateu (2012), and Acedo-Matellán & Mateu (2015), strong resultative constructions are a hallmark of s-framed languages, and are not found in v-framed languages.

In spite of the important cross-dialectal and cross-speaker variation shown by the above data, it can be concluded that some varieties of Romansh show traits of s-framedness.

5.2 Analysing the change

Concentrating on the case of predicates of removal, how is the following contrast between Rhaeto-Romance and Italian to be analysed from the theoretical point of view adopted here?

(96) Rhaeto-Romance (Vallader Romansh) vs. Italian (Mateu & Rigau 2010)

a. Dumenic lava *(oura) las maclas.

Dumenic washes out the stains

'Wash the stains away.'

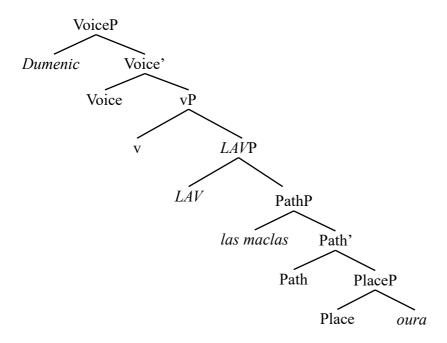
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²³ Surselvan seems to be more solidly s-framed than Vallader/Puter. This might be partly due to the fact that the former has been more intensely in contact with Germanic (Kramer 1981:132). See Berthele (2006). See also Haiman & Benincà (1992:6) and Solèr (1999:95) for the same remark on the syntax of Surselvan, particularly germanised and thus set apart from that of other Rhaeto-Romance varieties.

b. Gianni ha lavato (via) la macchia. Gianni has washed away the stain 'Gianni has washed the stain away.'

For Rhaeto-Romance it is evident that the analysis ought to be along the lines of one accounting for the same pattern in German or English: the particle structures PathP, which is a phase independent of that headed by v. In particular, the particle oura 'out' is merged as a Ground, that is, in the position of Compl-Place, and identifies a result location of the removal event. The root LAV 'wash' is sandwiched between v and the PathP phase, identifying the manner Co-event, in Talmy's (2000) terms:

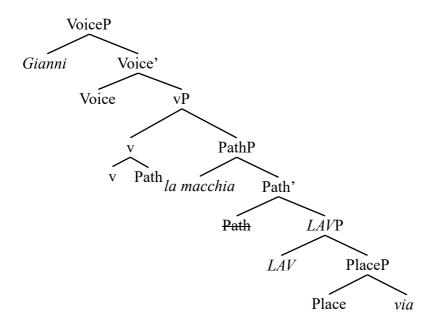
(97) Rhaeto-Romance (Vallader Romansh)



Following Acedo-Matellán (2010) and Real-Puigdollers (2013), I assume that a phonological mechanism brings up the phonological specification of the particle into Path, since they are both in the same spell-out domain, and, likewise, the phonological specification of the root LAV is brought up into the null v head.

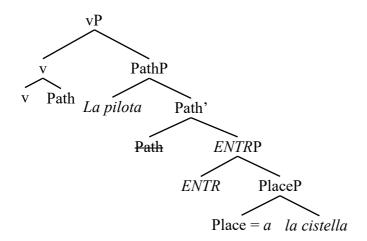
The analysis for Italian looks different with respect to the position of the verbal root *LAV* 'wash', which, according to the rationales exposed in section 3.1, must appear at the bottom of the v-Path phase, providing the conceptual dimension of the change of location event:

(98) Italian



Since PathP is not a phase in this language, it forms a spell-out domain with v. This complex head receives its phonological specification from the root *LAV*. The particle is merely further specifying the removal sense of the predicate. It is merged, again, as the complement of Place, which heads a phase in v-framed languages. The difference between the varieties accepting the omissible particle, like Italian, and those, like Catalan, that do not use them is not syntactic, but has to do with their lexical repertory. In Catalan, the above structure is licensed in run-of-the-mill change of location events with a locative PP interpreted as a result location:

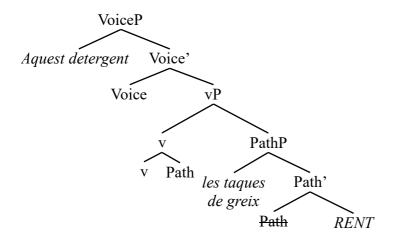
(99) Catalan La pilota ha entrat a la cistella. the ball has go in.PTCP at the basket



However, in the vocabulary of Catalan there is simply no particle equivalent to *via* 'away' that can identify PlaceP in predicates of removal like 'wash away'. At this point I depart from Real Puigdollers's (2013) theory and I follow Mateu (2012) in assuming that the very root of the verb, being the complement of Path, can be coerced to identify the final location of the Figure argument:

(100) Catalan

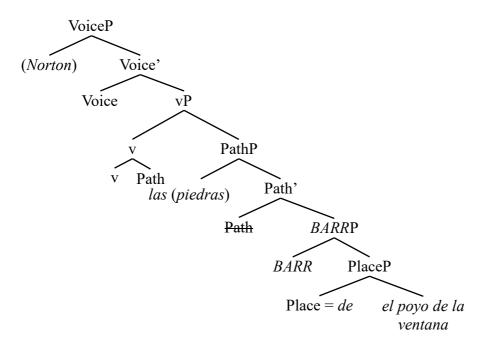
Aquest detergent renta les taques de greix. this detergent washes the fat stains 'This detergent washes away fat stains.'



Nonetheless, for some removal predicates the position of PlaceP can readily be occupied by a PP even in languages like Spanish, which also do not use particles in this kind of predicates:

(101) Spanish; Google Books

—Piedras —silbó Norton, y las barrió [...] del poyo de la ventana. stones whistled Norton and them swept.3SG from the windowsill "Stones", Norton whistled, and he swept them off the windowsill.



What is common to both Italian and Catalan and Spanish is the fact that they lexicalise Path together with v and use this strategy with roots like 'wash' or 'sweep' to express an event of removal without the need of a particle or PP. These can of course be added as an optional Ground of motion.

The availability of verb particle constructions in Rhaeto-Romance has been explained by many authors as the result of language contact with Germanic varieties (Bühler 1896, Heller 1976, Kramer 1981, Pfister 1998), although a subset of scholars point out that the phenomenon is of Romance heritage (Jaberg 1939, Gsell 1982, Andry 1993, 1999, Iacobini 2015) and that contact with Germanic may have merely made it more robust.²⁴ Crucially, to my knowledge all authors treat verb particle combinations as a lexical feature, and no one has pointed out the traits that bring these constructions closer to Germanic than to other varieties like Northern Italian, specifically the obligatory character of the particle to keep the same event structure. The contrast seen in this respect between Italian and Rhaeto-Romance suggests that contact really must have played an important role in the development of the phenomenon. As pointed out by Liver (1999), although the Latin spoken in the province of Rhaetia (the current canton of Grisons) was in contact with Germanic since the 4th c. AD, it is not until the 8th c. that a German variety establishes as a superstratum, with the germanisation of the native Romance-speaking upper class. Moreover, it is not until the 15th c. that German establishes itself as the majority language in the capital, Chur (see also Kuen 1978, Schmid 1993, Haiman & Benincà 1992:7ff, Rash 2002:120ff). Hence, it seems that more than preserving the s-framed nature of Latin, German actually induced a change from a v-framed system to an s-framed one.²⁵

How did the change take place? Let us concentrate on the predicates of manner of removal seen above. We hypothesise that at some stage verbs like lavar 'wash' could be used either alone or with a particle, which, as pointed out above, was already part of the lexical repertory of Romansh:

```
(102) Hypothesised v-framed Romansh
     Lavar
                 (oura)
                         las maclas.
                 out
     wash.INF
                         the stains
     'Wash the stains away.'
```

The difference between the two possibilities consists, as has been seen, in the use or lack of use of the particle in the phase headed by Place, so as to enhance the removal character of the predicate (Slobin 2008). The extension of Romansh-German bilingualism induced the coexistence of two grammars, one in which the particle was optional and one in which it was obligatory. In this latter case the particle is not an addition, but structures PathP itself. Given the optionality of the particle in Romance, in actual language use and provided the pressure from German, which came to be the A language from the 15th c. on, the particle ended up as being used systematically in the expression of removal. At some point a generation of speakers of Romansh did not have any evidence for the optionality of the particle, and, consequently, applied the default option of mapping the verb to v and the particle to the Path-Place stretch (see section 3.2). Thus, they reanalysed the particle as occupying the lower portion of the tree involving a PathP, with an accompanying reanalysis of Path as heading its own phase, i.e., as being [-def].

Conclusions and further research

In this work I have explored the implementation of the famous Talmian s-/v-framed typology as a mesoparameter, i.e., a parameter residing in the specification of a single functional head:

²⁴ See also Spiess (1986), who considers that Romance and Germanic varieties are just making a free use of

their lexical resources in expressing spatial notions, and so that the concomitances are a matter of coincidence. ²⁵ See also Krammer (1981) and Treffers-Daller (2012) for the use of particle verbs in Brussels French as a result of contact with the local variety of Dutch.

Path. The basic idea is that in v-framed languages Path is always defective, and hence cannot head its own phase, having to raise therefore to v and be spelled out in its cycle.

From a diachronic perspective mesoparameters are said to be pretty stable in time and to have their value reset through contact. In the empirical domain analysed here, this latter fact has been ascertained only for the v- to s-framed reset, specifically for the development of a s-framed system in certain varieties of Rhaeto-Romance. It has also been shown that no appeal to contact is needed to explain the reverse resetting, in particular from Latin and Ancient Greek to Romance and Modern Greek, respectively. This seems natural, given the morphological asymmetry between both types of languages: in v-framed languages there is a common morphological expression for v and Path, which can be arrived at merely by eroding the phonological boundaries of the morphemes encoding these two elements, through diachronic phonetic processes general in the language. For the reverse resetting, I have shown how long-standing contact with Germanic varieties may have yielded a reanalysis of certain predicates in Rhaeto-Romance as involving a Path head expressed in a particle, the verb encoding merely a motion event. This invites the conclusion that at least for certain parameters the conditions for their resetting may differ according to the value that the parameter is reset to.

I highlight two aspects of this research that deserve further attention. First, the precise development of a s-framed system in Rhaeto-Romance has to be dated according to the historical record, so as to ascertain whether reanalysis effectively took place from the moment that German acts as an A language in the Rhaeto-Romance domain (see Grünert 2013). Second, there are other cases of contact between v-framed languages and s-framed languages that do not seem to yield the same result that we attest in Rhaeto-Romance. Romanian is a case in point: although in long-standing contact with s-framed Slavic languages (Du Nay 1996:98), it remains a v-framed language (see section 4). Although this might be due of course to a less strong contact with Slavic than that between Rhaeto-Romance and Germanic, there is another explanation at hand. There is an important difference between the Slavic languages and Germanic, which presumably induced the change in Rhaeto-Romance. According to Acedo-Matellán's (2010, 2016) classification of sframed languages, Slavic is a weak s-framed language, since, although Path is expressed nonverbally, it must form a word with the verb, as in Latin and Ancient Greek. Thus, for instance, the condition to understand an event of transition in the following Russian sentence is that the prepositional element vy- 'out' be prefixed onto the verb:

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(103) Russian; Babko-Malaya (1999:51)

Ivan vy-kopal klad.

Ivan out-dig.PST.3SG treasure.ACC

'Ivan dug the treasure out.'
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Thus, unlike in Germanic languages, the model for Romanian does not consist in two different words. This could mean that contact-induced change is particularly sensitive to the word as a unit, and that word structure is not salient enough as a model for this type of change (see Weinreich 1953:35, Matras 2009:155, 209).

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