AGAINST DEFICIENCY-BASED TYPOLOGIES: MANNER-ALTERNATION PARAMETERS IN ITALIAN AND ENGLISH

Abstract

Can the well-known verb-framed/satellite-framed variation observed by Talmy (1975 et seq.) be productively analyzed as a true parameter, or is it in fact something else, perhaps a morphological tendency of individual lexical items in a given language? Here we defend the view that it is indeed a parameter, of a well-understood type: a head-movement parameter. We claim that it results from the variety of uninterpretable feature that is bundled with the flavor of *v* which is used in change-of-state constructions. The technical apparatus employed is another instance of a typical head-movement parameter, of the kind that accounts for the familiar V-to-T or T-to-C parameters. In verb-framed languages, head-movement to change of state v° is mandatory, just as head-movement to finite T° is mandatory in V-to-T languages. The approach, in contrast to previous analyses, does not ascribe a deficiency to verb-framed languages, either in their semantic composition inventory, or their inventory of structural operations, both of which seem *prima facie* implausible from a biolinguistic/Minimalist perspective.

Key words

Path, typology, prepositions, flavors of v, resultatives, verb-particle constructions, Talmy, head-movement, material/product alternation

1. Introduction

Talmy (1985 *inter alia*) observes that the verbal inventories of languages can differ systematically in the semantic content they encode. This observation has given rise to a number of analyses which fall into two general families. One approach focuses on the lexical availability of a prepositional element encoding Path semantics (e.g. Higginbotham 2000 and references therein), unavailable in languages of the Romance type. Another posits the availability of a special type of structure-building operation, often referred to as 'manner incorporation', which allows verbs to express Manner semantics (see Harley 2005, McIntyre 2004, Mateu 2002, 2008 and references therein), similarly unavailable in languages of the Romance type. Both such approaches ascribe the difference to a deficiency in either the lexicon or the structure-building operations of one typological group.

In this paper, we propose that instead the parameter is of a very standard type, parallel to other well-understood varieties of parametric difference in

the verbal domain. We propose that languages of the Romance variety are subject to a head-movement requirement in the lowest domain of the clause, the first-phase syntax of the vP. English-type languages are not subject to this requirement. This simple difference, we argue, accounts for the observed variation in typological behavior without resorting to the invention of a novel type of parameter resting on the notion of grammatical or lexical deficiency.

More generally, we argue that the two language families are not different in any broad sense with respect to the quality of verbal elasticity. Rather, they differ in the source of the lexical content of the v head: in Romance languages, it has to be supplied via head-movement, while in English-type languages, it need not be.

In examining the behavior of Italian and English verb frames we will consider two different domains: manner-of-motion constructions, and the material/product alternation. First, however, we review the basic landscape established by Talmy's observation, and sketch the key elements of the deficiency-based proposals we propose to reject.

2. Verb-framed vs Satellite-framed

Talmy showed us that languages differ with respect to the ability of a motion verb to express the manner and path of motion: Boats float towards and under bridges in English but not in Italian; to express this in Italian an adjunct is required. In Talmy's typology, English is a 'satellite-framed' language, because motion may be encoded in the satellite PP; Italian is a 'verb-framed' language because motion must be encoded in the verb.

(1) a. *The boat floated into the cave.*
b. **La barca galleggió alla grotta.* (no motion possible)
The boat floated at.the cave.
'The boat floated into the cave.'
c. *La barca galleggió nella grotta.* (Locative only,
The boat floated in.the cave
'The boat floated in the cave' no motion)
d. *La barca entró nella grotta galleggiando.*
The boat entered into.the cave, floating
'The boat entered the cave, floating.'

Talmy correlated the availability of the manner-of-motion structure with other patterns: adjectival resultatives, and verb-particle constructions. Subsequent work has argued that two other structures also correlate with the availability of manner-of-motion: ditransitives ('double object') constructions (e.g. Harley 2008), and productive noun-noun compounding (e.g. Snyder 1995). Examples of each of these are given below:

(2) a. Resultatives: English speakers *knock* themselves *silly*,
Italian speakers don't.
b. Particles: English speakers *lock* themselves *out*,
Italian speakers don't.
c. Double objects: English speakers *show people things*
Italian speakers don't.
d. Compounds: English speakers book *hotel rooms*
Italian speakers don't.

The robustness (and overall cross-linguistic validity) of this contrast cries out for explanation, and has been the focus of intensive investigation for the past few decades, in formalist, functionalist and psycholinguistic literature (see Beavers, Levin and Tham 2010 for one recent summary and synthesis). Our understanding of the contrast has been greatly enhanced by the rapid development of theories of event structure composition and the syntax-semantics interface (Borer 1994, 2005, Ramchand 2008, Harley 1995, 2005, Folli and Harley 2004, 2007, a.o.) However, consensus has not yet been reached on the nature of the parametric variation which underlies the contrast between the two types of languages.

In the next section we sketch the two major families of proposals that have emerged concerning the grammatical source of this variation.

3. Lexical parameter vs. Syntactic parameter

The first type of proposal ('type A') which has emerged is based on the notion that there is a difference in the lexicons of the two classes of language. In type A proposals, verb–framed languages are claimed to lack non-verbal lexical items encoding Path semantics—only verbs can encode Paths. Satellite-framed languages have nonverbal elements which lexicalize Path. For example, the preposition *to* in English includes a Path component, while the preposition *a* in Italian is purely locative, and hence is more accurately translated as one of the English locative prepositions *at* or *in*. The impossibility of a motion interpretation in the English sentence in (3b) is then exactly parallel to the absence of a motion interpretation in an analogous Italian sentence with *a*, in (3c):

(3) Italian *a* = English *at/in*
Italian lacks an equivalent of English *to*

a. *The car shuddered to a stop.* (motion)
b. *The car shuddered at a stop.* (location, *motion)
c. *La macchina ha scricchiolato*

the car has screeched
alla fermata (dell'autobus) (location, *motion)
to.the stop (of the bus)

Even with Italian verbs that lexically refer to a motion event, such as *navigare* 'sail' or *viaggiare* 'travel', it is impossible to include a Goal argument expressing the endpoint of motion using these simple locative prepositions, as illustrated in (4). The absence of a Goal interpretation for this PP is underscored by the requirement that the auxiliary in this sentence is *avere*, 'have', not *essere*, 'be'; in motion sentences with a Goal PP, Italian requires the use of the unaccusative auxiliary *essere*, as in (5) below; see Folli 2001 for a review and extensive discussion.

(4) *Gianni ha*è viaggiato a Roma*
Gianni has\is travelled at Rome
"Gianni travelled in Rome."
#"Gianni travelled to Rome."

The framing idea of the approach is that it is the lack of an equivalent of *to* (= 'Path') which prevents Italian from expressing a motion meaning with a non-motion verb. Italian motion verbs like *andare*, 'go', encode Path themselves, so their Goal can be introduced as a simple location PP.

(5) *Gianni è andato nel negozio*
Gianni is gone in.the shop
John went in the shop.

In summary, the key idea of this type of approach is that Italian-type languages have a lexical deficiency, which prevents them from expressing a motion event via the combination of a manner verb and a prepositional phrase, since Italian prepositions do not encode Path semantics.

The second type of proposal ('type B') holds that the grammars of verb-framed languages lack a particular kind of structural operation which is used in satellite-framed languages to create manner of motion verbs. This operation might be (morpho)lexical (e.g. Compounding, Zero-derivation, Snyder 1995, 2001), (morpho)syntactic (e.g. Manner Incorporation, Renumeration, Harley 2005, McIntyre 2004, Mateu 2002, 2008) or semantic (e.g. Rule R, Generalized Modification, telic-pair formation[1], Beck and Snyder 2001, Higginbotham 2000). English-like languages are able to execute this operation, while Italian-like languages can't.

The basic operation, whatever its specific character, allows a manner-

[1] Since Higginbotham links the lack of telic-pair formation to the absence of an accomplishment preposition, this is also a kind of variant of proposal A; it is then subject to the same problem of lack of generality of proposals of the A type.

denoting verb to merge with a change-of-state verb phrase. The manner verb surfaces as the sole verb of the composite structure, despite contributing only adjunct-like semantic content. For example, *wriggle* is a verb denoting a manner of motion; it can surface on its own as an unergative verb, as in *The baby wriggled with excitement*, with underlying event structure like that in (6); we illustrate with a kind of generalized event-structural notation, since specific syntactic details are immaterial at this level of description:

(6) [[*The baby*] DO [*wriggle*]]

The verb *go* typically heads motion constructions, which have fundamentally change-of-state event structures. Consider *The baby went into the tub*, with an underlying event structure like that in (7):

(7) [BECOME [[*The baby*] INTO *tub*]].

Via the Type B structural operation, e.g. Manner Incorporation (in syntactic approaches, e.g. Mateu 2002) or telic-pair formation/Rule R (in semantic approaches, e.g. Higginbotham 2000, Beck and Snyder 2001), these two event structures can be unified. The manner verb surfaces as the main verb producing *The baby wriggled into the tub*.

The same operation applies to create other complex change of state structures in resultatives and verb-particle constructions, merging the argument structure of, e.g., *John's shoes became threadbare* ([BECOME [[*John's shoes*] *threadbare*]]) with the structure of *John ran* ([[*John*] DO [*run*]]), giving *John ran his shoes threadbare*.

The idea is that English-like languages have this operation; Italian-like languages lack it. Consequently English-like languages have manner-of-motion, resultative and verb-particle constructions, while Italian-like languages lack them.

A comparison between the Type A and Type B approaches reveals weaknesses in each.

Type B proposals suffer from significant conceptual flaws. A truly structural parameter, according to which a particular structure-building operation is globally unavailable in some languages does not comport well with standard views of parametric variation, in which the syntactic combinatorial operation Merge is a fundamental universal, and cannot vary across languages. Semantic parameters are even more problematic: By assumption, the interface with the interpretive component works identically across languages, since the general cognitive system is presumably identical across speakers of different languages, and the same interpretive operations therefore must apply across the board.

Type A proposals, on the other hand, do not seem to have the right character to be a properly parametric account of the correlated patterns that

Talmy and subsequent work have identified. Why couldn't some Paths be lexicalized as verbs and others as Ps—for example, why couldn't a language have manner-of-motion constructions for movement *to* but not movement *from*? Why couldn't a verb-framed language simply borrow a Path-referring preposition? Most crucially, such approaches have difficulty in dealing with the combinatorial parametric quality of the effect across constructions: Why should the (un)availability of an independent preposition lexicalizing Path semantics affect the availability of adjectival resultatives, or double object constructions, or verb-particle constructions?

Analyses which take seriously the insight of Borer (1984) that parameterization should be a morpholexical phenomenon are most compatible with type A approaches: the notion that languages differ in their inventory of quasi-functional lexical items is a very natural one, and syntactic variation depending on such differences is predicted by such analyses. In what follows, we will present a Minimalist implementation of the manner-incorporation parameter which brings it into the fold of well-established syntactic parameters—those having to do with verb movement.

In essence, we propose that Romance-type verbs require head movement in change-of-state constructions, while English-type verbs do not. We will treat verb-framed languages as a well-defined typological type, and explain why all change-of-state expressions pattern together in this regard. We show that the account correctly predicts that some kinds of verb frame alternations will be permitted in Italian-like languages while others will not, unlike another newer type of approach which attributes the effect to a global morphological constraint.

4. Change-of-state constructions

Well-established syntactic parameters tend to ascribe different-but-equal status to the relevant lexical features which drive variation: weak vs. strong (Chomsky 1993), uninterpretable and interpretable (Chomsky 1995), features associated or not with the [EPP] property, (Chomsky 2000), and valued and unvalued (Chomsky 2001). In general, languages are all treated as arriving at equivalent LF representations, given equivalent ingredients, varying only in the locus of visibility of the syntactic operations that lead to that particular LF. In contrast, parameters which ascribe a broader inventory of LF representations to one language and a narrower inventory to another are atypical.

In thinking about the nature of the verb-framed/satellite-framed parameter, it is important to establish whether or not the fundamental structures available in both classes of languages are similar, as for other parametric variation cases mentioned above, or different, as in the case of

variation in lexical and featural content between languages, in gender and honorific systems, etc.

Italian, like other verb-framed languages, has a rich inventory of change-of-state and caused change-of-state constructions, including change-of-location constructions, all with satellite-framed-language analogues. We believe that this suggests that the fundamental ingredients in change-of-state structures are identical between verb-framed and satellite-framed languages. In addition, it is not the case that Italian verbs are generally morphosyntactically inflexible—there *are* verb-frame alternations in Italian. This suggests that the inventory of syntactic operations is also comparable between the two languages: whatever operations go into verb-frame flexibility exist in both kinds of languages.

Consider the *carve-sculpt* alternation in English and Italian. In English, such verbs occur in three distinct structures with three distinct readings:

(8) a.	*Maria carved a doll (from the wood).*	Creation/Product
b.	*Maria carved the wood.*	Resultative/Material
c.	*Maria caved the wood into a doll.*	Created Result

The example in (8a) exemplifies the Creation, or Product, reading. In this example, the direct object refers to an item which is created by the activity denoted by the verb. The optional 'from' PP specifies the material from which the object is created. The example in (8b) exemplifies the Resultative, or Material, reading. Here, the direct object refers to the material affected by the action denoted by the verb. As shown in (8c), in addition, in English, a Goal PP can specify the object which is created as the result of the action; we'll call this latter case the Created Result reading.

Importantly, the Italian equivalents of creation verbs like *carve* and *sculpt* lack the Created Result reading. It is not the case that Resultative readings for these verbs generally bad in Italian. They are in fact perfectly good, *but only without* the Goal PP specifying the object. (9b) is perfectly well formed, and in this case, the verb names the result—the effect upon the wood. (9c), where the result is named in the satellite PP, is what is ungrammatical in Italian (and, if the *-to* potion of the P is omitted, in English as well).

(9) a. *Maria ha intagliato una bambola (da un pezzo di legno).*
Maria has carved a doll (from a piece of wood).
"Maria carved a doll from a piece of wood."

b. *Maria ha intagliato un pezzo di legno.*
Maria has carved a piece of wood
"Maria carved a piece of wood."

c. **Maria ha intagliato un pezzo di legno in una bambola.*
Maria has carved a piece of wood in a doll
"Maria has carved a piece of wood into a doll."

Participles of *intagliare* 'to carve' can modify either created items or affected items, confirming the alternation:

(10) a. *La Matrioska è una bambola intagliata nel legno*.
the Matroska is a doll carved in.the wood
"The Matroshka is a doll carved from wood."
b. *Cavallo in legno intagliato* (Describing an item for sale)
horse in wood carved
"Horse in carved wood."

When the Goal PP is present, however, attempting to specify the created result of the change of state (9c), the construction is ungrammatical—presumably because in such examples, *intagliare* 'carve', is a manner, rather than a result (since the result is in the Goal PP), and manner-of-change-of-state verbs are impossible in verb-framed languages. What is crucial here is that we have a case of verb flexibility: The verb is alternating between a manner-of-creation verb (9a) and a result verb (9b). But the third alternation, where the verb is a manner-of-change-of-state, is impossible.

Italian is, therefore, not rigidly prohibited from participating in verb frame alternations by any blanket constraint. The prohibition is specific to manner-of-change-of-state constructions. We can see this especially clearly when we consider that Italian also allows another famous verb-frame alternation from Levin (1993). There are plenty of *spray-load* alternations in the language; indeed, in Italian there's an extra frame with these verbs which is unavailable in English:

(11) a. *Gianni ha caricato la paglia sul camion*
Gianni has loaded the hay on.the truck
Gianni has loaded the hay on.the truck
b. *Gianni ha caricato il camion con la paglia*.
Gianni has loaded the truck with the hay.
Gianni loaded the truck with the hay.
c. *Gianni ha caricato il camion di paglia.*
Gianni has loaded the truck of hay
"Gianni loaded the truck with hay."

In (11a) we see the *Pour*-variant of this alternation, in which the direct object is the Theme and a PP specifies the locational Goal of motion. In (11b), we see the *Fill*-variant, where the direct object is the Goal and the PP specifies the material Theme. Italian also is very productive in allowing the *of*-variant illustrated in (11c), in which the direct object is the Goal and the Theme is contained in an *of*-PP. This latter is not widely available in English, occuring only with a few verbs of removal (*John cleared the desk of paper*).

In sum, we can see that change of state/location structures, complete with Path semantics, are clearly well-formed in Italian. Verb frame alternations, equally, are well-formed, as shown by the *spray/load* cases[2]—so there's no blanket prohibition on verb frame alternations. What, then, is the problem with the Created Result reading of *carve/sculpt*? The moral of the example above is that change-of-state structures which involve encoding the result in the verb are good (9b). Structures in which a creation occurs in the manner encoded in the verb are good (9a). What is not good are change-of-state structures *where the result is not encoded in the verb.* Alternations in which the verb in Italian encodes a couple of different Results (11), or a Manner of Creation (9a), are fine.

It really is Manner-of-Change-of-State alternations that are impossible in verb-framed languages. It's not a problem with verb flexibility in general. When a change-of-state event is described, the resulting state must be encoded in the verb—this is what it means to be verb-framed. Note that what sets this view of the problem apart from the two previous approaches is the fact that verb-framed languages have an extra *requirement*, not a *prohibition*, on the construction.

5. The analysis: A head-movement parameter

As pointed out above, the fact that the constraint is general to all kinds of nonverbal Result categories, including adjectives, makes it difficult to think of the restriction as specific to a single category like P, and suggest that a more general account is needed.

We take our model for such a general account from a more well-understood domain of verbal syntax: the V-to-T parameter that is set differently in French (and other Romance languages) than in English, or the T-to-C parameter that is set differently in French than in e.g. German.

The intuition is that in verb-framed languages, there is a "Result-to-v" parameter which is set to 'on': Feature checking between change-of-state v and Result *always requires overt head movement* in these languages, while in satellite-framed languages, the same parameter is set to 'off'—that is, in satellite-framed languages, checking between a change-of-state v head and the Result in its complement can occur without triggering overt movement. In satellite-framed languages, v-Result feature checking can occur with Result *in situ*, just as feature checking between T and V in the traditional account of the verb-raising parameter occurs with V *in situ* in English.

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2 Indeed, they behave in a productive, predictable way, as expected if they are the result of first-phase syntactic operations. See Alexiadou and Anagnostopoulou 2011 for documentation and discussion of the productivity of this same, similarly productive class of locative alternations in Greek, another verb-framed language.

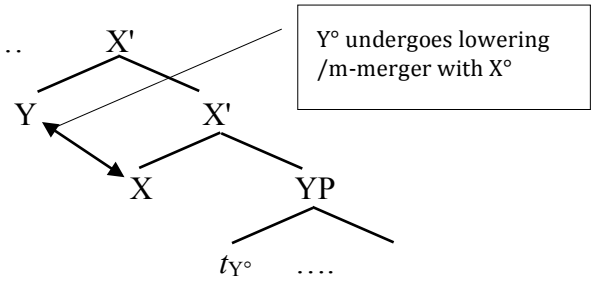
Crucially, we need to be able to distinguish between Change of State v, which selects for a Result, and Creation/Activity v, which does not. We accomplish this by ascribing different head-movement properties to different flavors of v, in much the same way that auxiliary verbs in English have different head-movement properties than main verbs.

5.1. Technical implementation: V to T movement

We need a formal feature-checking account of the V to T parameter in place, on which to model the account of the Res-to-v parameter. To implement head-movement in terms of feature-checking requirements, we will adopt Matushansky (2006)'s theory of head-movement.

In this approach, moved heads re-merge at the root of the derivation, and immediately undergo an m-merger ('bundling') operation to adjoin to the highest head, the head of the root projection. ('M-merger' = Noyer and Embick's 'lowering' operation).[3]

(12) …



We assume a simplified version of Adger (2003)'s feature system in which all complementation involves categorial feature checking. Movement is triggered by EPP features associated with particular unvalued features. We annotate this EPP feature as *, following Adger. Head-movement from the complement is thus triggered by an EPP feature linked to the *u*F which triggers complementation on the selecting head.

So, for example, in English, T bears *u*v, rather than *u*v*: that is the T head which selects v lacks the additional movement-triggering EPP feature. Lexical verbs thus do not raise higher than v° in English. T's *u*v feature is checked against v *in situ*. In French, T bears *u*v*, triggering v-to-T.[4] English auxiliary verbs do raise to T. Auxiliaries, then, are a distinct subcategory (or 'flavor') of v; call it v_{Aux}, and the T which selects them bears a *u*v_{Aux}* feature. We summarize the key elements of this analysis in (13) below.

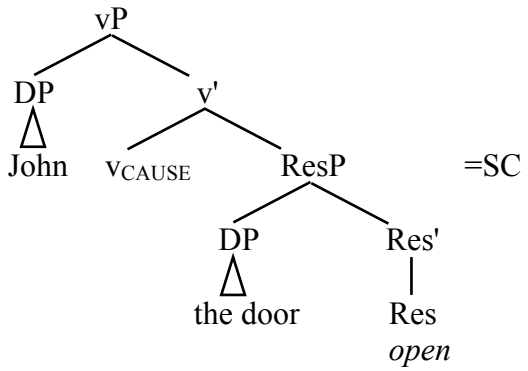
[3] Manner modifiers are attached to v° by the same series of operations, modulo being adjoined to the root by External merge, rather than Internal merge. They subsequently undergo m-merger in exactly the same way, however.

(13) Ingredients for the analysis:
   a. uF triggering complementation
   b. uF* triggering complementation + head movement
   c. Different 'flavors' of the same category can have different * properties

5.2 Technical implementation II: Res to v movement

Now, with a sense of how head-movement can be triggered via selection, we can see how a Result-to-v parameter in verb-framed languages would work. The central assumption of what follows is that change-of-state v° heads like v_{CAUSE} and v_{BECOME} share a selectional feature which ensures they take a result-denoting (Small Clause) complement, which we will term Res(ult)P here, following Ramchand (2008).

(14)



Here is the proposal: In verb-framed languages, the feature ensuring the correct complementation for change-of-state v is *u*Res*, requiring head-movement from Res* to v.[5] The requirement that Res move to v will have the effect of requiring that every verb in a change-of-state construction must 'lexicalize' the result of the change-of-state. Remember that with respect to other verb flexibility metrics, verb-framed languages are just as free to reinterpret/coerce verbal meanings as any other language.

(15) a. Creation, √CARVE = Manner
   Maria ha intagliato una bambola
   Maria has carved a doll
   "Maria carved a doll."
   b. Change of State, √CARVE = Result
   Maria ha intagliato un pezzo di legno
   Maria has carved a piece of wood

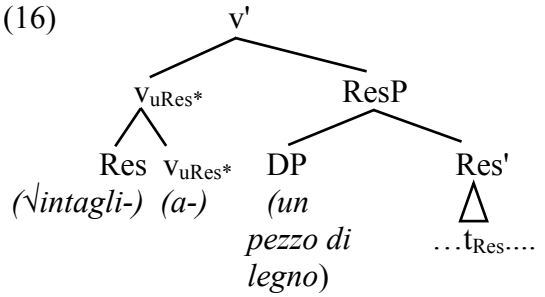
[5] It becomes crucial to the account that SC have a category to be selected for, and be the projection of a normal head, given the feature-based theory of selection—an interesting consequence of the idea here presented.

"Maria carved a piece of wood."

c. Change of State, *√CARVE = Manner
**Maria ha intagliato un pezzo di legno in una bambola.*
Maria has carved a piece of wood in a doll
"Maria has carved a piece of wood into a doll."

The derivation of *intagliare* on the result-naming reading in (15b) then is the following:

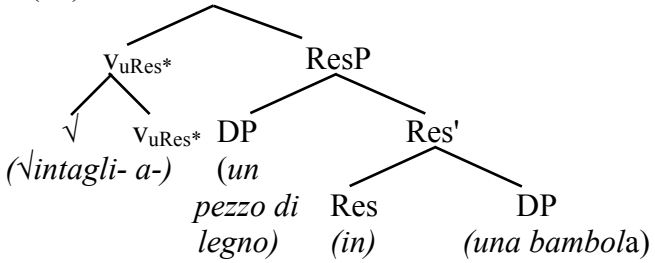
(16)



How does this allow for the cases of verb flexibility in Italian that we have seen? Simply this: *Spray/load* verbs like *caricare,* as proposed by Rappaport Hovav & Levin (2005), Tenny (1992), and others, are flexible because they can be understood as naming either one of two different result states: the state of a container that has been loaded/sprayed or the state of a (specific amount) of a Theme that has been loaded/sprayed. Both involve interpretation of the verb as a result, so both are fine in Italian.

The upshot of the requirement is that no Res head can be left stranded in verb-framed languages. This entails that there can be no adjectival resultatives, no verb-particle constructions, and no manner-of-motion constructions—essentially, no structures like (15c), whose properties are illustrated in (17) below, where Res does not incorporate into v°.

(17) * v' ← Ill-formed due to unchecked uRes* feature.



If we simply remove the * from *u*Res, however, we have the appropriate structure for the English equivalent, *carve a piece of wood into a doll*. The *u*Res complementation feature on English change-of-state v is able to check against Res *in situ*, no movement needing to be triggered. The Manner

element, √*carve*, can then be externally Merged at the v' point of the derivation, subsequently undergoing m-merger to produce the appropriate manner modification structure.

That is, Manner modification is the e-Merge equivalent of Matushansky's i-Merge head-movement structure: If instead of selecting an element from within the complement, a verbal element from the Numeration is selected, Merged at the root of v' and subsequently lowered/m-merged to adjoin to v, a manner modification structure is the natural result. Note that this operation is just as available in Italian as in English, and is used in the creation reading of *intagliare*, 'carve', in (15a); we discuss this in more detail in section 5.4 below.

5.3 Manner/Result complementarity

We are left with one significant puzzle: Why can't an e-Merged Manner element from the numeration undergo m-merger/lowering with a change-of-state v that has already checked its *u*Res* feature, by moving and m-merging with a Res element? That is, why does Manner/Result complementarity (Rappoport Hovav and Levin 2010) seem to be a requirement, cross-linguistically (contra Beavers and Koontz-Garboden 2012)? Why can't both an i-Merged and an e-Merged Root both adjoin to the v, forming a kind of Manner/Result V-V compound?

While we do not have a definitive answer to this question, it seems clear that several approaches could hold promise in accounting for this phenomenon. Perhaps the *m*-merge cycle can be calculated only once for a given projection. Perhaps there is a morphological constraint in non-incorporating languages against having two √s in a single v. Or, perhaps we can adapt a version of Embick's categorization approach. We outline the latter possibility below.

Embick (2010) proposes that roots are subject to a categorization restriction. Roots *must* merge with a 'little x' head to receive a category; uncategorized roots are ill-formed. If this is the case, Embick concludes, then verb roots in verb-framed languages are ill-formed without incorporation/conflation with v, because they would remain uncategorized. Manner/Result complementarity follows as a consequence: if a Manner root adjoins to v, stranding an uncategorized Result (=SC predicate) root downstairs, the result is ill-formedness.

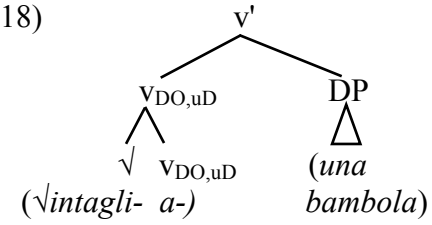
However, crucially Embick's approach still fails to explain why adjectives, PPs, or particles cannot occur in Result position downstairs in verb-framed languages. They're categorized, certainly. We can also ask why the restriction is so universal? Couldn't some lexical verbs have categorized Roots and others not?

We will adopt Embick's key insight that a single v head can categorize only one element. The idea is that little *x* categories can determine/check the category of the element they m-merge with only once.
Let us assume that the m-merger/lowering operation is driven by this category-determining relation, i.e. by a morphological *u*Category feature on little *x* heads like v. This feature can be checked by any non-v category, including √. This will derive Manner/Result complementarity, because a Manner element adjoined to a v which has already checked its *u*Category feature against a Result cannot m-merge with that v.[6]

5.4 Other flavors of v

Finally, we turn to the question of whether other flavors of v are subject to a similar head-movement requirement in Italian. As foreshadowed above, the answer must be no. On the creation reading of *intagliare* (15a), the verb is interpreted as a Manner element, modifying v_{DO}. The v_{DO} head, however, does not take a ResP complement; rather, it selects for a DP. This DP does not head-move into v°, so v_{DO} has a simple *u*D feature enforcing selection. This feature allows checking *in situ*. Consequently, a Manner element may adjoin to v' and m-merge with v_{DO}, producing *intagliare una bambola,* 'carve a doll'

(18)



The account predicts that when the subject of *intagliare* is a Causer, rather than an Agent, it should not be able to occur in the Created Result frame here, since Causer subjects are only compatible with v_{CAUSE}, not v_{DO} (see Folli and Harley 2004). This is confirmed by the examples in (19), where an inanimate subject is incompatible with the Created Result frame (19a), but well-formed with the Resultative frame in (19b)

(19) a. *#Il vento ha modellato una farfalla (sulla spiaggia)*
The wind has modelled a butterfly (on.the beach)
"The wind sculpted a butterfly (on the beach)."
b. *Il vento ha modellato la spiaggia*
The wind has modelled the beach
"The wind sculpted the beach."

[6] It may be able to cliticize to it, if it's an independently well-formed item; cf complex phrasal manners-of-motion in head-final languages cross-linguistically.

6. Conclusions

In this paper, we have argued that the lack of flexibility in change of state constructions in verb-framed languages is a head-movement requirement in those languages, modeled in a Minimalist framework as a feature-checking requirement on change-of-state v flavors—Romance-type languages have a *u*Res* on their change-of-state v, not *u*Res.

This proposal has the attractive property of being a truly parametric, language-wide account, which can group together all the varied phenomena that have been identified as part of Talmy's generalization. Further, it is a parameter of a very well-studied type, a purely syntactic, feature-based account which does not depend on assuming that verb-framed languages are deficient in any regard.

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