

Distributed Morphology Lecture 6: Determining *v*
March 19, 2003

1 Folli & Harley 2002: Consuming Results

→ Syntactic frameworks for thematic structure in some ways suffer from *overgeneration*: having introduced syntactic flexibility with respect to certain classes of alternating verbs, theorists are now faced with the inverse problem of accounting for gaps in alternation patterns. In short, why don't all verbs exhibit all alternation patterns freely?

→ We will argue that a new typology of *v* is needed to account for the behavior of consumption verbs, when they take an inanimate subject. These verbs, unlike non-alternating *destroy*-class verbs, do not generally allow inanimate agents. Compare (1a,c) with (1b,d)

→ In a language like English verbs can display great flexibility in argument structure, as shown by the examples below:

- (3) a. Mary cleaned
b. Mary cleaned the table
c. Mary cleaned the crumbs off the table
d. Mary cleaned the table spotless
e. Mary cleaned out her savings

- (4) a. John walked
b. John walked home
c. John walked Mary home
d. John walked himself breathless
e. John walked the morning away along the beach.

→ In this particular case, it would seem that either we believe that in the lexicon of a language we have five different entries for each of the above verbs (i.e., *clean*₁, *clean*₂, *clean*₃, etc.) and that therefore the syntactic computation is working with one of the possible entries each time, or,

if we want to maintain the ideal of a maximally limited lexicon, we would have to make the derivation of the different forms in (3) and (4) a matter of syntactic computation.

2.2. Semantic and syntactic sub-events: at least Initiate & Result, maybe more

Another argument in favour of a finer grained analysis of events can be found in

the analysis of adverbial modification (Hale and Keyser 1993, von Stechow 1995, Higginbotham 1997, etc).

- (8) John almost melted the chocolate.
- (8') John melted the chocolate again.
- (9) John sat his guest on the floor on purpose
- (10) John sat his guest on the floor slowly (Higginbotham 1997:3).

2.3. The problem of restricting alternating behavior in syntactic theories

→ But we cannot forget that the flexibility is not complete in a given language. In languages like Italian, such restrictions leap to the eye, but they can be found even in English.

→ In English, for example, you can *destroy* all sorts of things, but you can *collapse* only those things that are made to be collapsed externally:

- (11) John destroyed the tent
- (12) John destroyed Mary
- (13) John collapsed the tent
- (14) *John collapsed Mary.
- (14') Mary collapsed

→ Moreover, while some verbs can be used to describe both caused and uncaused events, others cannot:

- (15) *The tent/Mary destroyed
- (16) The tent/Mary collapsed.

→ What prevents, in theory, the formation of a sentence such as '*a cake ate*' with the meaning '*there was eating of a cake*', if the insertion of a verb into different kinds of syntactic frames is all that's needed to account for these kinds of phenomena?

→ In Italian, we see that while certain verbs of manner of motion can describe both bounded and unbounded events, just like in English, others can only describe unbounded events:

- (17) a. Gianni ha corso nel bosco per ore
John HAS runPAST in the woods for hours
- b. Gianni è corso nel bosco in un secondo
John IS runPAST into the woods in one second.
- (18) a. Gianni ha camminato nel bosco
John HAS walkPAST in the woods
- b. *Gianni è camminato nel bosco
John IS walkPAST into the woods

- c. Gianni è andato nel bosco camminando
John went into the woods walking.

→ some like this in English too.

- (19) a. #The helicopter hovered to the house
b. #John wobbled the cart with the bad wheel down the candy aisle
c. #Mary wavered the 40-ft. extension ladder into place.

→ Again, the search for lexical determinants of argument projection is on.

3.1 Animacy requirements and argument structure alternations

→ In the causative, transitive form, any kind of cause or agent is possible. Consider the examples in (20):

- (20) a. The door opened
b. John/The wind opened the door
c. The glass broke
d. Mary/The stick broke the glass
e. Jim and Tammy Faye Bakker separated
f. Jimmy Swagert/Adultery separated Jim and Tammy Faye Bakker.

→ There are also verbs which place apparent selectional restrictions on their external argument, some of which are illustrated in (21):

- (21) a. The army/The tornado destroyed the city
b. *The city destroyed
c. John arrived
d. *The train arrived John
e. Sue/The tornado killed someone
f. Sue/*The tornado murdered someone
g. The warden/Sickness imprisoned Andrew
h. The warden/*Sickness jailed Andrew.

3.2 Verbs of consumption: animacy requirements and results

Verbs of consumption, like *eat*, *drink*, or *consume*, show the same transitivity pattern as in (21a,b) above: as with *destroy*, their agent arguments may not be freely omitted (see ex. (22a,b) below). They differ from the *destroy* verbs, however, in that they do not freely allow inanimate Cause subjects (see example (22c) below), like the *murder/jail* verbs illustrated above:

- (22) a. John ate the apple
 b. *The apple ate
 c. #Rot ate the apple.

The same facts obtain for Italian verbs of consumption:

- (23) a. Gianni ha mangiato la mela
 Gianni has eat.PERF the apple
 b. *La mela ha/é mangiato/a
 the apple has/is eat.PERF
 c. #La malattia ha mangiato la mela
 The disease has eaten the apple.

The restriction to animate agents illustrated in (22)-(23c) above, however, is eliminated if the verb occurs in a resultative construction:

- (24) a. *The sea ate the beach (like (22c) above)
 b. The sea ate away the beach
 c. The carpenter carved the toy
 d. *The wind carved the beach
 e. The wind carved the beach away
 f. The child nibbled the cookie
 g. *Erosion nibbled the cliff
 h. Erosion nibbled away the cliff
 i. The cowboy chewed the tough beef
 j. *The washing machine chewed the laundry
 k. The washing machine chewed up the laundry.

Again, the same carries over to Italian:

- (25) a. *Il mare ha mangiato la spiaggia (like (23c) above)
 The sea has eat.PST the beach
 b. Il mare si é mangiato la spiaggia
 The sea REFL is eat.PST the beach
 c. Gianni ha bevuto un caffè
 John has drink.PST a coffee
 d. *Il sole ha bevuto il lago
 The sun has drink.PST the lake
 e. Il sole si é bevuto il lago
 The sun REFL is drink.PST the lake
 f. Gianni ha succhiato una caramella durante la lezione
 Gianni has suck.PST a candy during the class

- g. *L'inflazione ha (ri)succhiato i risparmi¹
The inflation has suck.PST the savings
- h. L'inflazione si é (ri)succhiata i risparmi
The inflation REFL is suck.PST the savings
- i. Gianni ha ritagliato un pezzo di legno
Gianni has carve.PST a piece of wood
- j. *Il mare ha ritagliato un pezzo di spiaggia
The sea has carve.PST a piece of beach
- k. Il mare si é ritagliato un pezzo di spiaggia
The sea REFL is carve.PST a piece of beach.

→ This alternation shows a surprising property: the animacy restriction on the subject of the verb goes away when the structure of the verb phrase is altered.

→ In English, the structural change is accomplished by adding a particle such as *away* or *up*; in Italian the inchoative reflexive *si* is inserted and the required auxiliary changes from *avere* to *essere*

→ The auxiliary alternation in Italian is also seen, of course, when a verb like *fondere* 'melt' is used transitively and intransitively, as shown in (26):

- (26) a. Gianni ha fuso il cioccolato
Gianni has melt PST the chocolate
- b. Il cioccolato é fuso
The chocolate is melt PST.

→ In addition, there is evidence in English that adding a particle or a prepositional phrase to certain verbs changes the argument structure of the VP. For instance, when an unergative verb like *waltz* or *jump* is used with a directional PP, it may take a direct object, which is impossible without the PP:

- (27) a. The couple waltzed (across the floor)
- b. *John waltzed Mary
- c. John waltzed Mary across the floor
- d. Sue jumped
- e. *Sue jumped the horse
- f. Sue jumped the horse over the fence.

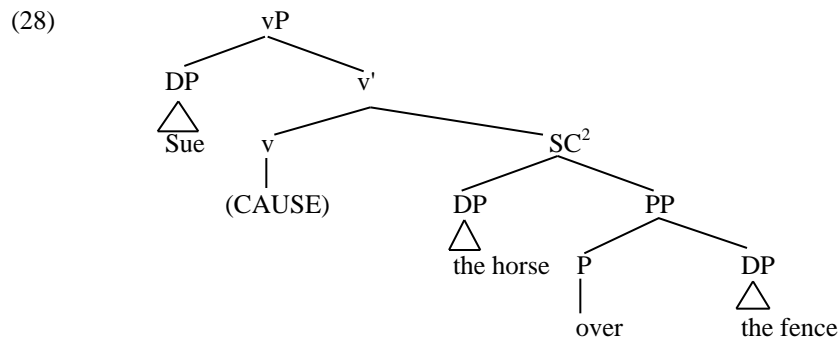
¹ We wish to point out that although in Italian the formation of particle constructions is highly restricted, there are few cases in which this kind of construction can be formed and an unbounded verb can be turned into a bounded one. Example (24)g.-j. are an example of this. In both cases the transformation of the sentence into a resultative structure can be done via the adjunction of the particle *via* 'away':

- (i) l'Inflazione ha succhiato via i risparmi
The inflation has suck away PST the savings
- (ii) Gianni ha tagliato via un pezzo di legno
John has carve PST away a piece of wood.

→ It seems clear, then, that these additional phrasal elements crucially induce an alteration of the argument structure of the vP. This alteration effectively turns the argument syntax of the verb of consumption into a resultative structure.

3.3 Structure and telicity in resultatives and verbs of consumption

A resultative construction involves a transition to a result state, whether caused or uncaused. In the sentences in (27) above, for instance, addition of the goal PP provides a secondary predicate characterizing the state that results at the end of the event

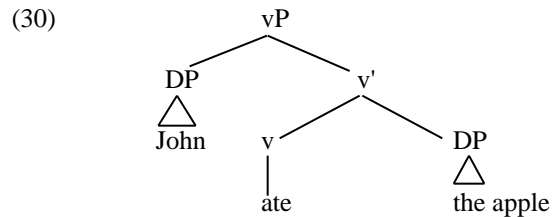


(You will notice that there is no node in the present structure projected by the verb *jump*. It is either inserted by a ‘Manner Incorporation’ process like that proposed in Harley (2001), or it heads a Process VP that intervenes between the upper and lower shells, à la Folli & Ramchand (2001). We will enlarge on the second option below (§5), although for present purposes the choice is irrelevant.)

→ In (27f) above, it’s the horse’s change in position that measures out the event, not the physical properties of the horse itself; it doesn’t take a big horse any longer to jump over the fence than a small horse. On the other hand, it *does* take longer to eat a large apple than a small one.

→ We assume that the representation of verbs of consumption involves (at least) the structure below. As with *jump* in (28) above, the root *eat* is not represented as projecting its own VP. For the account of the contrasts proposed here, the exact source of the verb root is not crucial. If we were to provide a more fine-grained structure, we would either represent it as inserted directly via “Manner Incorporation,” or as base-generated in a Process VP head, intervening between v and DP.

² “Small Clause.” While we are aware that this term has been used to refer to several different types of structures in the literature, with more or less functional structure involved, we intend it here in the most agnostic sense, simply to refer to a predicational structure between an argument and a predicate. Our proposal does not hinge on this issue, and we feel that any extant notion of Small Clause could easily be integrated into the analysis proposed here.



3.4 What happens when a verb of consumption becomes resultative?

In the data set under consideration, we can identify four distinct reflexes of the alternation from verb of consumption to resultative construction, enumerated in (31) and (32):

- (31)
- i. In English, a particle is inserted after the object, realizing the secondary predicate
 - ii. In Italian, *si* is inserted before the main verb

and in consequence,

- (32)
- i. In Italian, the auxiliary becomes *essere* and the main verb is a participle
 - ii. In both languages, the animacy restriction on the subject is removed.

→ We wish to propose that the alteration in structure between the consumption verb illustrated in (30) and the resultative structure illustrated in (28) arises as a result of the morphosyntactic changes listed in (i)-(iv). Let us consider the Italian case first.

3.5 Italian

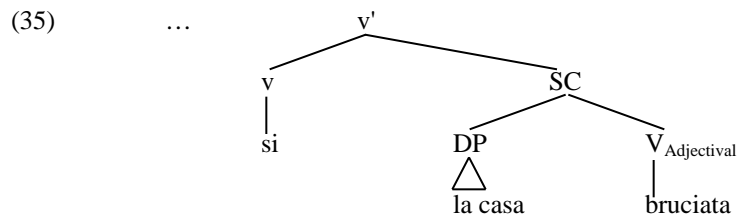
→ The most salient distinction between the consumption and result sentences with *mangiare* 'eat' is the presence of *si* in the resultative variant. We propose that *si* is a realization of a light verb (as also proposed by Zubizarreta 1987, Lidz 1999, Sanz 2000, Folli 2002).

→ The key property of the light verb realised by *si* is that it selects a state complement, which crucially encodes the final state of the event. Consider, for example, a verb like *fondere*, 'melt', which has two inchoative forms, one with and one without *si*:

- (32)
- | | | | |
|----|---------------|------|--------------------------------|
| a. | Il cioccolato | | é fuso (per un' ora) |
| | The chocolate | | is melt.PST (for an hour) |
| b. | Il cioccolato | si | é fuso (*per /in un'ora) |
| | The chocolate | REFL | is melt.PST (*for/in an hour). |

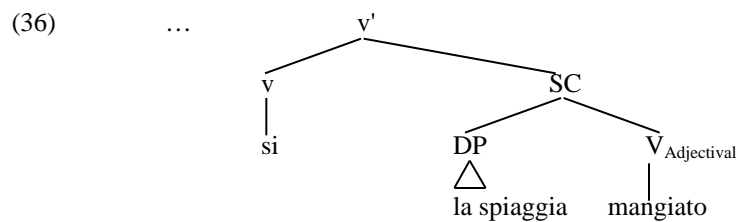
- (33) Il cioccolato é fuso per un ora, ma non si é fuso (completamente)
 the chocolate is melt.PST for an hour, but not REFL is melt.PST
 (completely)
- (34) a. La casa é bruciata (per un'ora), ma non si é bruciata
 the house is burn.PST (for an hour), but not is burn.PST
 The house burned (for an hour), but it didn't burn down.
 b. * La casa si é bruciata, ma non é bruciata (*contradiction*)
 the house REFL is burn.PST, but not is burn.PST
 "#The house burned down, but it didn't burn."

→ The fact that the verbal *si* encodes for a final result state means that the structure in which it occurs must include at least the following:



→ *v* is occupied by *si*. Contrast this with the proposed structure for verbs of consumption in (30) above, where *v* is occupied by the main verb.

→ Insertion of *si* forces the merge of the main verb into the lower position. Second, the main verb is crucially an adjectival participle, indicating the end state. (Its adjectival status is clear from the fact that it agrees with its subject).



→ Notice that the agreement on the participle in these cases is *not* with the object; see the discussion in section 4.

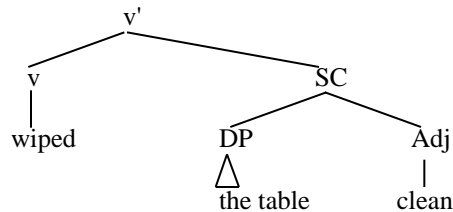
3.6 English

Let us remind ourselves of the alternation as it appears in English:

- (37) a. John ate the apple
 b. The storm ate away the beach / ate the beach away.

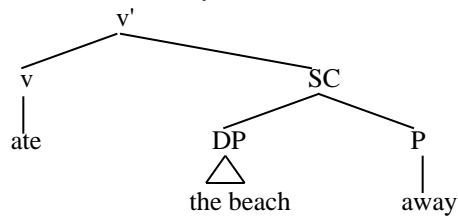
→ In this case, the trigger for small clause formation is not obviously a different light verb, but rather the presence of the particle *away*.

- (38) a. Sue wiped the table clean
b. ...



In a completely analogous way, addition of the particle to verbs of consumption results in the formation of a final state small clause; the phrase *eat the beach away*, then, has the same structure, illustrated below:

- (39) a. The sea ate the beach away
b. ...



4. ANALYSIS

→ In theta-theoretic terms, external arguments in Spec vP can bear either an Agent or a Cause role. These roles have very similar qualities, but one crucially different property: Agents must be intentional—they can *do* things—while Causes need not be.

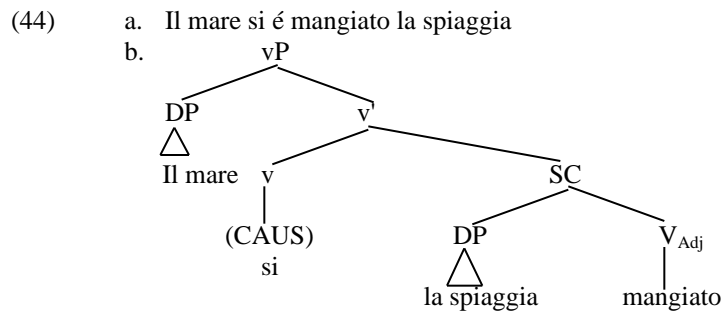
→ This distinction can be lexically encoded, as we illustrated above for verbs like *murder* vs. *kill*.

→ What do Causes do? We claim that they initiate a change of state, which must be represented in a particular way in the syntax, by the projection of a small clause.

→ In Italian, the process is complicated by the fact that the formation of resultative structures with secondary predicates is not freely available (Napoli 1992, Folli 2002). Moreover, as noted by Giorgi and Pianesi (1998), among others, the past tense forms of Italian verbs of creation and consumption do not entail the telicity of the event. In other words, a sentence like *John ate an apple* in Italian does not necessarily imply that 'John ate the apple all the way up' (cf. Zagana 1996).

- (42) Cosa ha mangiato Gianni per pranzo?
 What has eat.PST Gianni for lunch
 What did Gianni eat for lunch?
- (43) a. Gianni ha mangiato una mela, ma non l'ha finita
 John has eat.PST an apple but NEG it has finish.PST
 John ate an apple, but he didn't finish it
 b. #Gianni si é mangiato una mela ma non l'ha finita
 John REFL is eat.PST an apple, but NEG it has finish.PST
 John ate an apple up, but he didn't finish it.

As discussed above, the introduction of the reflexive morpheme forces the projection of a result state SC. As a consequence, the effects noted above follow: (i) the external argument is a Cause, not an Agent, and (ii) the telicity of the whole phrase is now enforced. We propose such clauses have the structure in (44) below:



Two questions immediately arise:

- the word order illustrated above does not match that of our clause, where the object follows the verb rather than precedes it
- there is the question of agreement: here the participle must agree with the subject, not the object, as might be expected.
- There are two possible avenues of analysis for these facts, which we consider to be aspects of a single problem. One possible approach is to propose that the adjectival verb raises out of the small clause, adjoins to v, and checks an AGR feature against the subject in spec-vP. This raises the issue of how the little v, spelled-out as *si*, can raise independently to adjoin to the finite auxiliary. Either little v would have by some species of clitic movement, or it would have to excorporate.
- The other possible option is that in Italian, the usual order of predicate and subject is P-S, not S-P, as well have represented it here.
- This possibility is supported by the observation that the embedded subjects of causatives with *fare*, both agentive and unaccusative, occur to the right of their predication: *Gianni ha fatto galleggiare la barca sotto il ponte*, “G. has made float the boat under the bridge,” not **...la barca galleggiare...*, “...the boat float...”
- It is still clear that the participle is adjectival, not perfective, however,

because the gender and number of the subject change the shape of the participle in the *si* construction, but do not trigger a change in the participle agreement in the perfective.

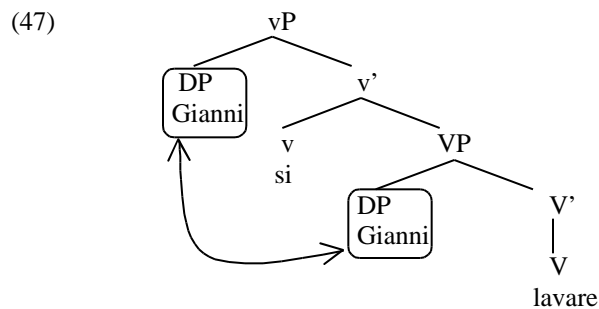
- (45)
- Gianni ha mangiato una mela
Gianni has eat.PST an apple
 - Maria ha mangiato/*mangiata una mela
Maria has eat.PST/*eat.FEM.PST an apple
 - Gianni e Maria hanno mangiato/*mangiati una mela
Gianni and Maria have eat.PST/*eat.PLU.PST an apple
 - Gianni si é mangiato una mela
Gianni is eat.PST.MASC an apple
 - Maria si é *mangiato/mangiata una mela
Maria is *eat.PST.MASC/eat.FEM.PST an apple
 - Gianni e Maria si sono *mangiato/mangiati una mela
Gianni and Maria ARE *eat.SG.PST/ eat.PLU.PST an apple.

4.1 Reflexive *si*

→ the verbal analysis of *si* in the examples analysed above allows a unitary analysis at least of inchoative and reflexive *si*. The idea is that *si* is a verbal head and as such occupies the one verbal head available.

- (46) John washed himself
Gianni si è lavato.

→ The hypothesis put forward in Folli (2002) is that in the derivation of a reflexive structure, the verb merges lower, while *si* merges as *v*, making the two specifier positions identical:



→ *si* carries a little *v* feature that forces it to merge in *v*. This is confirmed by considering the behaviour of the reflexive sentence “Gianni si è lavato” when it is embedded under the explicit causative form with *fare* (*make*):

- (48) Maria ha fatto lavare Gianni
 Maria has made.PST wash Gianni
 *Maria ha fatto lavarsi Gianni
 Maria has made.PST wash.REFL Gianni.

→ As we can see, if *fare* is inserted, *si* cannot surface, although (48) is ambiguous between a transitive interpretation (*Mary had someone wash John*) and a reflexive interpretation (*Mary had John wash himself*). In the reflexive interpretation, *si* cannot surface precisely because there is now no empty verbal head into which *si* could merge, the v head being filled with *fare* and the V head with *lavare* (*wash*).³

5. EXTENSIONS

More animacy & internal/external cause effects:

- (49) a. John has a broken arm
 b. The oak tree has a large branch
 c. John has a car
 d. *The oak tree has a nest.
- (50) a. John whistled
 b. The train whistled
 c. *The bullet whistled
 d. The bullet whistled through the window.
- (51) a. John ran into the woods
 b. The bullet whistled into the room
 c. How far into the woods did John run?
 d. *?How far into the room did the bullet whistle?
- (53) a. O idioktitis mas epetrepse na exume skili, ala
 DET owner us permit.PAST.PF NA have dog but
 den ixame skili
 NEG have.PST.PL dog

³ We thank Paula Kempchinsky for pointing out that the complementary distribution between *si* and *fare* does not carry over to Spanish *se* and *hacer*: *La madre hizo lavarse al niño*; ‘The mother had the child wash himself’ is well-formed and indeed obligatory in Spanish. Obviously this is an important question that we will wish to pursue, but since it hinges on whether or not *se* and *hacer* are truly analogues of *si* and *fare*, a complete investigation goes beyond the scope of this footnote.

- “The owner permitted us to have a dog, but we didn’t have a dog”
- b. O idioktitis mas epetrepe na exume skili, ala
 DET owner us permit.PST.IMPF NA have dog but
 den ixame skili
 NEG have.PST.PL dog
- “The owner permitted us to have a dog, but we didn’t have a dog”
- c. *Ekini i adia mas epetrepse na exume skili, ala
 That DET license us permit.PAST.PF NA have dog but
 den ixame skili
 NEG have.PST.PL dog
- “The license permitted us to have a dog, but we didn’t have a dog”
- d. Ekini i adia mas epetrepe na exume skili, ala
 That DET license us permit.IMPF NA have dog but
 den ixame skili
 NEG have.PST.PL dog
- “The license permitted us to have a dog, but we didn’t have a dog”

Again, these facts are also seen in Italian:

- (54) a. Il padrone ci ha premesso di avere un cane, ma...
 The owner us has permit.PST to have a dog but...
 The owner permitted (PF) us to have a dog, but
- b. Il padrone ci permetteva di avere un cane, ma...
 The owner us permit.IMPF to have a dog but...
 The owner permitted (IMPF) us to have a dog, but
- c. *#La licenza ci ha premesso di avere un cane, ma...
 The license us has permit.PST to have a dog but...
 The license permitted (PF) us to have a dog, but
- d. La licenza ci permetteva di avere un cane, ma...
 The license us permit.IMPF to have a dog but...
 The license permitted (IMPF) us to have a dog, but...⁴
- (55) a. *Il temporale ha chiuso le finestre
 The storm closed the windows
- b. *Il vento ha rotto la sedia
 The wind broke the chair
- c. *Il sole ha aperto la busta
 The sun opened the envelope.

- (56) a. Il temporale ha svegliato Gianni
-

⁴⁴ Thanks to Asya Pereltsvaig for pointing out that this paradigm holds in Russian as well.

- The storm woke Gianni up
 b. Il vento ha rotto la finestra
 The wind broke the window
 c. Il sole ha alterato i colori
 The sun altered the colors.

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2 Folli & Harley 2003: Waltzing Matilda

→ unergative verbs don't take objects (no causative variant), and are atelic

- (1)
- (a) John waltzed (*Matilda).
 - (b) John walked (*Matilda).
 - (c) John ran (*the dog).
 - (d) John jumped (*the horse).

→ objects ok when goal PP has been added, lending telicity

- (3)
- (a) John waltzed Matilda into the bedroom in 5/*for 5 minutes.
 - (b) John walked Matilda to his new flat in 20/*for 20 minutes.
 - (c) John ran the dog over the bridge in 20/*for 20 seconds.
 - (d) John jumped the horse across the ditch in a flash/*for 2 seconds.

→ this has made people think that despite the non-incremental-theme nature of the object, there is some connection between objects and telicity, and bolstered feature-checking accts.

→ but: object ok even when goal PP is atelic:

- (4)
- (a) John waltzed Matilda around and around the room for hours.
 - (b) John walked Mary along the river all afternoon.
 - (c) John ran the dog up and down the path for hours.
 - (d) John jumped the horse back and forth across the ditch for 30 minutes.

→ alternative approaches to telicity: Weschler and Levin & Rappoport—traditional selection important to telicity

→ selected vs. unselected objects in resultatives

- (8) (a) John swept the floor.
 (b) John swept the floor clean.
 (c) John shouted (*himself).
 (d) John shouted himself hoarse.
 (e) John swept the broom apart.
 (f) *John swept the broom.

→ selected objects only allow 'bounded' adjectives

- (9) (a) Mary wiped the table clean.
 (b) #?Mary wiped the table dirty.

→ Wexler argues that intransitive verbs of motion show this 'selection' effect with their subjects, since they don't allow unbounded adjectival resultatives, but do allow Goal PP resultatives, which he assumes are always bounded

- (10) (a) *We danced tired.
 (b) *The coach trained us tired.
 (c) We danced ourselves tired.
 (d) John danced into the room.

→ and, of course, this is true of many PPs

- (11) (a) John walked to the river #for 3 hours/ in 3 hours.
 (b) Mary pushed the cart into N.Y. #for 3 hours/ in 3 hours.
 (c) Sue danced across the room #for 3 hours/ in 3 hours.

→ but not of others.

- (12) (a) John walked along the river for 3 hours /#in 3 hours.
 (b) Mary pushed the cart towards N.Y. for 3 hours /#in 3 hours.
 (c) Sue danced around and around the room for 3 hours /#in 3 hours.⁵

→ possible counterproposal: these atelic PPs are not true Goals, but just locations

→ not so, because, although locational PPs switch places freely, Goals don't like to occur outside locational PPs, and these are no different:

⁵ Notice that the preposition *around* is ambiguous between an atelic and telic interpretation. On the former, it simply means continuously, in a circular way. When telic, it means that a complete circuit of something, with a beginning and an endpoint, has occurred (*John walked around the house in five minutes/for five minutes*). To disambiguate these two senses here, we use *around and around*, which is purely atelic.

- (13) (a) Sue danced around the bathroom at the party.
 (b) #Sue danced at the party around the bathroom.
 (c) Sue danced at the party in the bathroom.
 (d) Sue danced in the bathroom at the party.

→ ditto for the temporal PPs with Locational PPs but not Goal PPs:

- (14) (a) Sue danced at the party for hours/ for hours at the party.
 (b) Sue danced around the room for hours/#for hours around the room.
 (c) John pushed the cart at the state fair for hours/for hours at the state fair.
 (d) John pushed the cart towards New York for hours/#for hours towards N.Y.

→ and do-so replacement

- (15) (a) Mary kissed John in the park and Sue did so in the bedroom.
 (b) *Sue gave a book to John and Mary did so to Bill.
 (c) *John pushed a cart towards N.Y. and Bill did so towards Washington.

→ addition of a goal PP has an effect on auxiliary selection in Italian and Dutch, whether or not it is a telic PP:

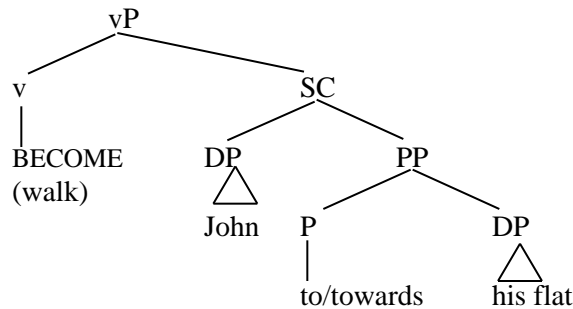
- (16) (a) Gianni ha corso nel bosco per ore/#in un minuto.
 John has run in the woods for hours/in one minute.
 (b) Gianni é corso nel bosco in un minuto/#per ore.
 John is run into the woods in a minute/in one minute.
- (17) (a) Gianni é corso verso il bosco.
 John is run towards the woods.
 'John ran towards the woods.'
 (b) Gianni é scivolato in direzione della pianta.
 J. is slid in the direction of the tree.
 'John slid in the direction of the tree.'
- (18) (a) Jan is in het bos gerend.
 Jan is in the woods run.
 'Jan ran into the woods.'
 (b) Jan heeft in het bos gerend.
 Jan has in the woods run.
 'Jan ran in the woods.'
 (c) Jan is naar het bos gerend.
 Jan is towards the woods run.
 'Jan ran towards the woods.'

→ finally, some verbs of motion select for a goal PP

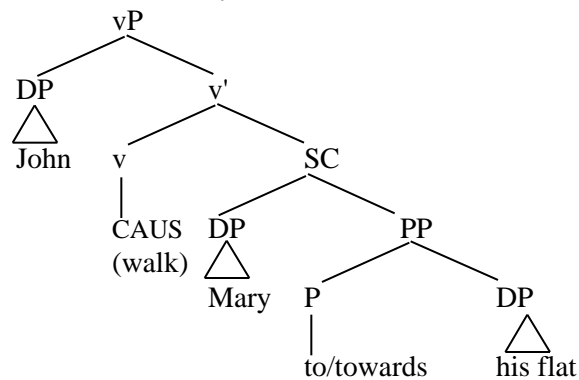
- (19) (a) The car careened around the corner.
 (b) #The car careened.
 (c) The car hurtled around the corner.
 (d) #The car hurtled.

→ Assuming that the Goal PP induces a structural change in the VP is much more sensible: accounts for the unaccusative behavior in the intransitive, and the extra argument position in the transitive:

- (20) (a) John waltzed Matilda around and around the room for 3 hours /#in 3 hours.
 (b) John walked Mary towards her car for 3 hours /#in 3 hours.
 (c) John ran his dog along the canal for 3 hours /#in 3 hours.
- (21) (a) John walked to/towards his flat.



- (b) John walked Mary to/towards his flat.



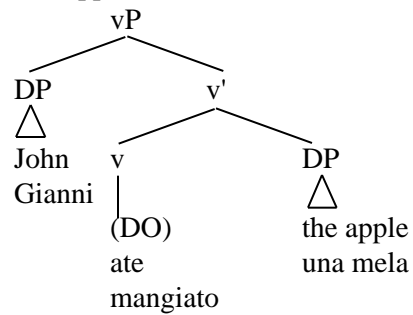
→ telicity doesn't have anything to do with auxiliary selection; argument structure does:

- (23) (a) La temperatura é diminuita per ora.

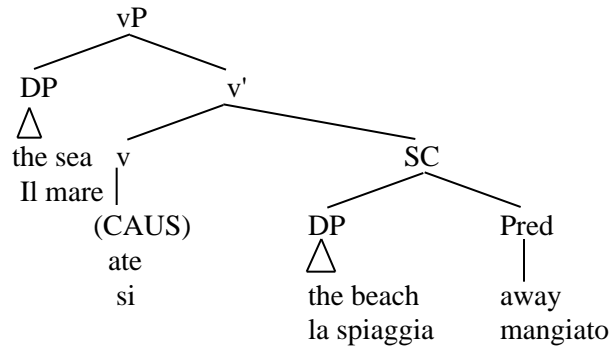
- The temperature is diminished for hours.
 ‘The temperature decreased for hours.’
 (b) L’inflazione é aumentata per mesi.
 The inflation is increased for months.
 ‘Inflation has increased for months.’

→ But: in the previous paper, we claimed that changing to a small clause structure resulted in different argument selection requirements:

- (25) (a) John ate the apple

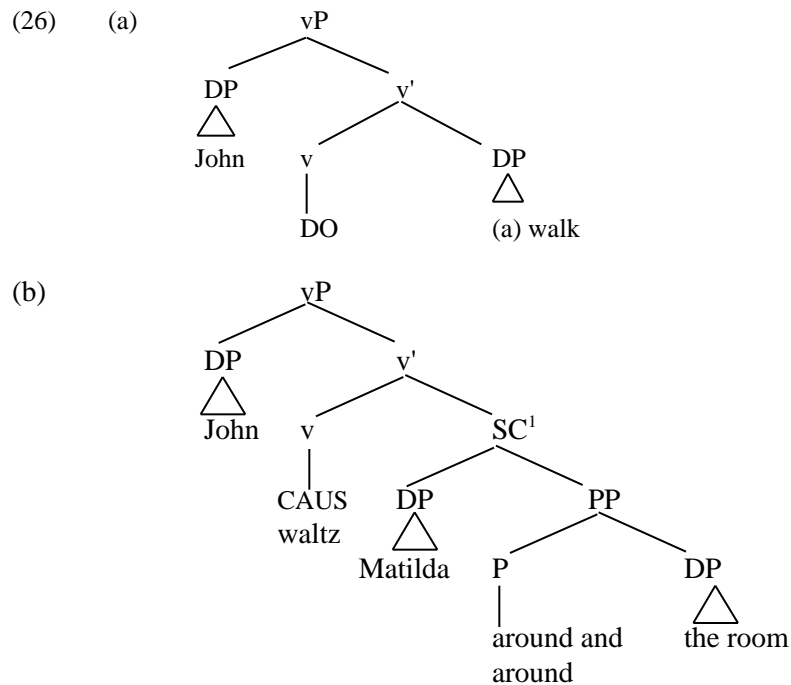


- (b) The sea ate the beach away



→ not so in this case! rats.

- (27) *Anxiety ran Mary to her house.



→ problem: this means that structurally, 'john walked to the store' is unaccusative. but 'john' feels pretty agentive here.

→ encyclopedic effect? we already know that some verbs imply a +intentional agent. (just as *destroy* implies an external cause, *murder* requires an intentional external cause).

→ difference between a verb of motion (travelling) and a simple activity verb: encyclopedic implication of a Path argument

→ The conjunction of these encyclopedic effects can help us explain the 'accompanied action' effect, and also lets us explain the agentivity-feeling we get from 'John walks

Table 1

	+Path	-Path
+Agent	walk, run	whistle, hiss
-Agent	roll, float	shudder

→ all of these may occur with Goal PPs:

- (28) (a) Mary walked to the store.
 (b) The log rolled along the beach.⁶
 (c) The bullet whistled through the window.
 (d) The train shuddered into the station.

→ but they're not the same: 'selected' PPs can be questioned, unselected ones not.

- (29) (a) How far did Sue walk?
 (b) How far did the log roll?
 (c) *How far did the bullet whistle?
 (d) *How far did the train shudder?

→ no combination readings are available to form the causative out of a verb like *shudder*

- (30) (a) *The wind shuddered the cart across the parking lot.
 [-intentional], [+accompanying]
 (b) *Bill shuddered the shopping cart across the parking lot.
 (e.g. by giving it a hard push).
 [+intentional], [-accompanying]
 (c) *Bill shuddered the cart across the parking lot.
 [+intentional], [+accompanying]

→ with a verb like *whistle*, intentionality lets you get a causative, but no accompanied motion reading is available

- (31) (a) *The teakettle whistled Mary into the kitchen.
 [-intentional], [+accompanying]
 (b) Mary whistled Rover to her side.
 [+intentional], [-accompanying]
 (c) *Mary whistled Rover down the path.
 (where both Mary and Rover are going down the path)
 [+intentional], [+accompanying]

→ with *roll*, they're all available -- but stay tuned:

- (32) (a) The tide rolled the log up the beach.
 [-intentional], [+accompanying]
 (b) Bill rolled the ball to the toddler.
 [+intentional], [-accompanying]
 (c) Bill rolled the tire along the street.
 (where he's rolling with her down the hill)
 [+intentional], [+accompanying]

⁶ Of course, when the subject of *roll* is animate, the rolling event maybe intentional, as in *John rolled down the hill on purpose*. See the discussion of unaccusative verbs with intentional arguments below.

→ Verbs like *walk* require both accompanied motion and intentionality

- (33) (a) *The wind walked the dog into the house.
[-intentional], [+accompanying]
(b) *John walked the child onto the stage.
[+intentional], [-accompanying]
(e.g. he mimed walking confidently in the wings and then the child was encouraged and walked onstage herself).
(c) Mary walked John to his house.
[+intentional], [+accompanying]

→ accompanied-motion-requiring verbs don't require the motion *named* by the verb from the causer, just some sort of continuous causation

- (34) (a) The boy jumped the action figure across the table.
(b) Sue ran the car into the wall.
(c) John danced the puppet across the stage.
(d) Mary walked the bookshelf across the room.

→ remember: intentionality doesn't seem to be always correlated with unaccusativity:

- (35) (a) Gianni é caduto/*ha caduto apposta.
John is fallen / has fallen on purpose.
(b) Gianni é rotolato/*ha rotolato giu apposta.⁷
John is rolled/has rolled down on purpose.

→ With a straightforward verb of motion like *roll* which includes a path, but no intentionality requirement, accompanied-motion licenses a simple causer; intentionality licenses a non-accompanied motion reading

- (36) (a) The tide rolled the log up the beach.
(b) *The slope rolled the ball past Mary's house.
(c) John rolled the ball to the child.

→ With an intentional verb with no motion like *whistle*, we see the true unaccusativity requirement kicking in when it appears with a *path*.

- (37) (a) Mary walked into the room
b. *Mary whistled into the room.
c. The bullet whistled into the room.

⁷ Although *rotolare* is better with *ha* than *cadere* is, this is due to the fact that *rotolare* is optionally transitive, so the *ha rotolare* sequence, while ungrammatical in this structure, is familiar from transitive constructions; it's a type of garden-path effect.