Changes at the Syntax-Semantics Interface: From Latin to Modern French*

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1. Introduction

- Our topic considers several syntactic changes that occur during the evolution of Latin to Modern French. These changes fall within the well-known two-way typology pioneered by Leonard Talmy (1975, 1985, 2000): satellite- vs verb-framed languages.
- Satellite-framed languages (like English, Dutch, German) tend to have various kinds of resultative syntactic constructions that verb-framed languages lack (like French, Spanish, Catalan).
- We will consider four types of resultative secondary predication typical of satellite-framed languages:
  - directional/aspectual verb prefixes; see (1) for a Latin example
  - productive goal of motion constructions (*John walked **to the store***)
  - directional/aspectual verb particles (*John ate the apple **up***)
  - complex adjectival resultatives (*John hammered the metal **flat***)

(1) LATIN (S-FRAMED)
Caprarum-que uberibus ***ad**-volant*
goat.GEN-and udders-DAT.PLUR **at-** fly
'And they fly onto the udders of the goats.'
(Plin. Nat. 10, 115, in Acedo-Matellán 2010: 100)

- **Talmy's observation, much discussed in the recent literature:**
- Latin as a satellite-framed language → Modern French as a verb-framed language

1.1 Two views on the change from Latin to Modern Romance

→ Structural view of the s-framed/v-framed distinction:

- The typological difference between Latin and Modern French (and perhaps s-framed vs v-framed languages generally) involves at least one abstract category belonging to the extended functional projection of the prepositional system. This projection is often called Path, and it encodes transition/result (see Koopman 2000; den Dikken 2003; Folli & Ramchand 2005; Son 2007; Son & Svenonius 2008, among others).

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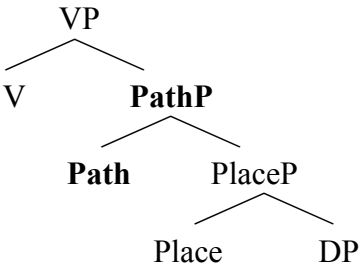
- Possible (basic) structure in s-framed Latin that may not be available in v-framed French:

(2)



Diachronic predictions of the structural view:

- If there is addition/loss of morphemes associated with Path, then we expect to see (perhaps dramatic) consequences for constructions dependent on this functional category. We thus expect the change from Latin to French to have properties similar to other kinds of syntactic change involving the IP or CP domains:
  - Clustering effects among related structures such as those related to V-to-I mvmt in English (Kroch 1989), V2 effects in Yiddish (Santorini 1993), V-to-C mvmt in French (Vance 1997, Kroch 1989), among others.
  - Diffusion of the change (measured as a linguistic replacement) follows an S-shaped curve (Croft 2000; Denison 2003; Kroch 1989, Yang 2002, i.a.) occurring over several centuries, and conforming to the CRH (1989).

→ Lexical semantics view of the s-framed/v-framed distinction

- The difference between s-framed and v-framed languages is a purely lexical semantic one, not a structural one.
- Typological variation is attributed to how abstract semantic features like motion, manner and direction are encoded inside a lexical root (Slobin 2004; Kopecka 2006, 2008; Iacobini & Fagard 2011, among others).

Diachronic predictions of the lexical semantics view:

- There is no expectation that change from an s-framed grammar to a v-framed grammar should have the same properties as other kinds of syntactic change.
- Change proceeds via low-level lexical changes
- Since the s-/v-framed distinction does not involve discrete grammatical categories, "hybrid" grammatical systems are expected during transition periods.

Consensus in the literature concerning the change(s) from Latin to French:

- The change from a Latin-style s-framed grammar to a French style v-framed grammar was gradual and involved various stages of hybridization. A few examples from the literature follow

- Hickmann & Robert (2006: 5)

> Changes in the expression of motion events are **not abrupt, but unfolded in several stages over centuries**, moreover the **hybridization** within languages at given points in time shows that language-internal variability corresponds to more general variability that can be observed across languages. That is, during the course of its history, a given language evolves from one type of system into a different type that is found in other languages.

- Iacobini & Fagard (2011: 158)

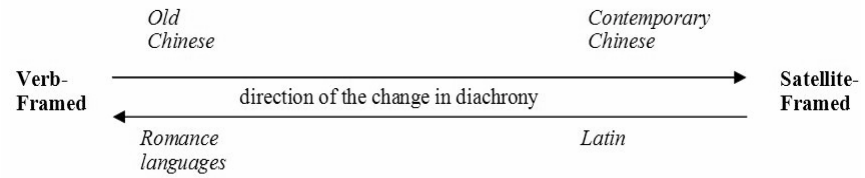


Figure 1: Transitions from VF to SF and vice-versa.

> […] as has been shown in recent research, the SF > VF transition has been **anything but abrupt**. Multiple clues indicate that this transition was rather **gradual**: for one thing, Late Latin already shows signs of the emergence of 'nontraditional' strategies, with verbs expressing Path in the root and verb-particle constructions

- Kopecka (in press: 4)
  […] a former [satellite] system which was still productive in Old French, but which **progressively declined and evolved over the centuries** towards a **hybrid** or a verb-framed system through the lexical fusion of verbal prefixes with verb stems

1.2 Main proposals of our talk

- We would like to report on our study of the evolution of some typical s-framed resultative constructions from Latin to Modern French, emphasizing what is found in Medieval French (12^{th}-15^{th} centuries) since this period provides strong support for the structural view of the s-framed/v-framed distinction.

→ Medieval French presents new resultative constructions that were not present in Latin

- The development of the French system saw three distinct systems:
- Latin (s-framed) ⇨ Old/Middle French (s-framed') ⇨ Modern French (v-framed)

→The three systems are discrete

- The shift from one system to the other is not gradual and thus so-called "hybrid" systems do not exist in the interim periods.
- Gradualness and hybridization effects are only apparent.
- (i) v-framed strategies within a predominantly s-framed grammar (Late Latin): this is expected since s-/v-framedness are in a superset/subset relationship.
- (ii) s-framed structures in a predominantly v-framed grammar (Modern French): this is expected during the (relatively brief) transition period framed in a theory of competing grammars; what may appear to be an s-framed construction may not be.
- We present a quantitative study of part of the change to support this claim.

1.3 Plan of the talk

1. Introduction
2. From s-framed to v-framed in the history of French: a brief survey
3. Cues for Path and Contingent factors
3. The loss of the s-framed pattern: a preliminary quantitative study
4. Conclusion

2. From s-framed to v-framed in the history of French

- This section describes the inventory of s-framed resultative secondary predicate constructions in Latin, Old/Middle French, and Modern French.
- We show that the Old/Middle French period saw the emergence of new resultative structures that did not exist in Latin and that were lost in the evolution to Modern French.

	Latin	Old and Middle French	Modern French
Directional/aspectual prefixes	✓	✓	×
Goal of motion construction	✓	✓	×
Directional/aspectual verb particles	×	✓	×
Adjectival resultatives	×	✓	×

Table 1: *Evolution of resultative secondary predication from Latin to Modern French*

2.1 Resultative constructions in Early and Classical Latin: 200 BC to 200 CE

- Latin locative prepositional elements[1] could appear as prefixes on motion verbs to form a **goal of motion** construction; see Haverling (2003), Acedo Matellán (2010). The verbal prefixes in (3) encode the result-state of the various DPs: the shells are *out* through coughing in (a); the blood is *away* through wiping in (b); they are *down* through jumping in (c); he is at the gate by riding in (d).

(3) a. *Serpentes ova solida haurient, [. . .] atque putamina* ***ex****-tussiunt.*
snakes eggs-ACC whole-ACC swallow, [. . .] and shells-ACC **out**-cough
'Snakes swallow the eggs whole and expel the shells though coughing'
(Pliny. Nat. 10, 197; in Acedo-Matellán 2010: 179)

b. *Inspectum vulnus* ***abs****-terso cruore.*
examine.PTCP wound.NOM.SG **away**-wipe.PTCP blood.ABL.SG
'That the wound had been examined after wiping the blood off.'
(Liv. 1, 41, 5; in Acedo-Matellán 2010: 97)

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[1] Arguments that the Latin prefixes have an inherent locative semantics include 1) the fact that a directional interpretation is licensed only with dynamic manner verbs. Stative verbs create locative interpretations: (i), and 2) the fact that these prefixes can be used independently as locative prepositions (ii). See Acedo-Matellán (2010) for discussion.

(i) a. *Argentum* ***de-****erat.*
silver.NOM **away**-was
'Money was lacking.' (Ter. Phorm. 298 ; in Acedo-Matellán 2010: 98)

b. *Senex* ***ab****-est.*
old man **away**-is
'The old man is missing.' (Plaut. Cas. 882; in Acedo Matellán 2010: 98)

(ii) a. *quorum saepe et diu* ***ad*** *pedes iacuit stratus*
whose often and long.time **at** feet lay spread.out
'At whose feet he often lay at that for a long time.' (Cic. Quinct. 96; in Luraghi 2010: 6)

b. *quia* ***ab*** *tergo erant clivi,*
because from back were hills
'because behind them were hills' (Liv. 2,65,2; in Luraghi 2010: 7)

c. *Repente ex equis* ***de****-siliunt*

suddenly out horses **down**-jumped
'Suddenly they lept down from their horses'
(Liv. 22, 48, 2; in Acedo Matellán 2010: 189)

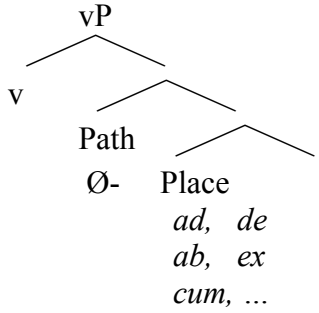
d. *Qui ubi* ***ad****-equitavit portis.*
who.NOM as.soon.as **at**-ride doors.DAT
'This one, as soon as he had ridden up to the gates. . . '
(Liv. 22, 42, 5; in Acedo-Matellán 2010: 189)

- Similarly, Early Latin has hundreds of prefixed/unprefixed verb pairs that correspond to telic/atelic pairs. A few samples of this alternation are given in (4); examples from Haverling (2003:114).

(4) a. *edo* 'eat/ eat of' vs ***com****edo* 'eat up'
b. *bibo* 'drink/drink of' vs ***e****bibo* 'drink up'
c. *tacui* 'have been silent' vs ***con****ticui* 'have fallen silent'

- Acedo Matellán argues in his (2010) dissertation that these prefixes are not in fact inherently directional/aspectual, but instead, that they have fundamentally locative semantics – we've included a brief explanation of this in footnote 1. He further argues that the prefixation of these locative prepositional elements is the unique source of resultative secondary predication in Latin. This is a way of accounting for the fact that Latin doesn't present other common s-framed features: no directional/aspectual verb particles in Latin *(to eat something* ***up****; to walk* ***away****),* and no adjectival resultative constructions in Latin (*to hammer something* ***flat****)*
- The structure in (5) generates the forms in Table 2. Note the large set of locative prepositions that can become Path prefixes through syntactic derivation. This is made possible because Early Latin speakers acquire a null Path morpheme that is prefixal. The locative prepositions can thus conflate into the bound null Path morpheme to create the preposition/prefix pairs.

(5)



	LOCATIVE PREPOSITION	**PATH PREFIX**
de	'from', 'of'	'down'
ex	'from'	'out'
cum	'with'	'become'
in	'in', 'on'	'into'
ad	'at'	'to'

Table 2: *Alternating locative prepositions and directional/aspectual prefixes in Latin*

2.2 Resultative constructions in Modern French

- Goal of motion is not possible with manner of motion verbs in Modern French.[2] The prototypical manner of motion verbs in (6) can only be construed as activities in Modern French. The addition of a PP, in (7) and (8) for example, does not result in a telic reading.

(6) **"Pure" manner of motion verbs:**
danser 'to dance', *marcher* 'to walk', *voler* 'to fly', *ramper* 'to crawl', *essuyer* 'to wipe'...

(7) a. *Jean a marché à Paris pendant tout l'après-midi.* (activity)
Jean AUX walked at Paris for all the-after-noon
'Jean walked around in Paris for the whole afternoon.'

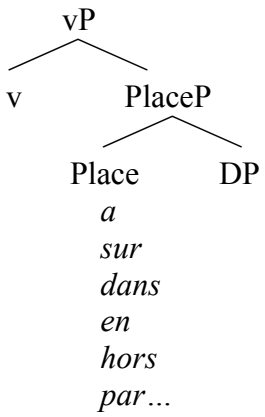
b. **Jean a/est marché à Paris en deux heures.*
Jean AUX/AUX walked at Paris in two hours

(8) a. #L'oiseau a volé sur la branche.
'The bird flew around over/on the branch'
NOT: 'The bird flew onto the branch.'

- It is also important to note there is no productive system of directional/aspectual prefixes in Modern French (so-called "remnants" of Latin). Only two prefixes (iterative *re-* and change of state *de-* are productive in Modern French; see Sablayrolles (2000) and Kopecka (2006).
- Modern French has no directional/aspectual verb particles *(*aller **arriere*** 'go back').
- Modern French has no complex adjectival resultatives (**marteller le métal **plat*** 'hammer the metal flat').

- The structure in (9) summarizes the French system. Notice that in contrast to Early Latin, there is no null Path morpheme to generate aspectual prefixes, only a rich system of locative prepositions.

(9)



[2] In some cases, a Path interpretation can indeed arise with a restricted set of manner verbs including *courir* 'to run' and *sauter* 'to jump'. Beavers et al. (2009) suggest that directional interpretations such as those in (i) and (ii) are not grammatically constructed but are products of pragmatic reasoning associated with the inherent aspectual properties of the verb and properties of the ground.
(i) *Jean a couru au magasin*. 'John ran to the store'.
(ii) *Jean a sauté dans la flaque*. 'John jumped into the puddle.'

2.2.1 Interim Summary

- Latin possesses a single kind of resultative secondary predication construction: prefixed goal of motion constructions.
- This resultative prefixation process is no longer productive in Modern French.
- Only a small subset of the Latin locative prepositions survive in Modern French, and these prepositions have no related directional prefixes.

→ **Question:** What kind of system arises as the prefixes die out?

- The lexical semantics approach would predict a gradual decline in frequency of prefixed goal of motion constructions (as the prefixes are reanalyzed as part of verbal roots), while verb-framed strategies begin to appear more frequently, yielding the hybrid system.
- In the next section, we show that this prediction is incorrect:

→ New types of resultative secondary predicates are present in Medieval French.
→ We propose that this new system arises due to two innovations: i) some Latin *derived* prefixes are reanalyzed as dedicated bound Path morphemes, and ii) Medieval French speaking children are driven to acquire a (new) free null Path morpheme (this actually occurs earlier, at least by Late Latin).

(10)

2.3 Medieval French: 1100-1500 CE

- Old and Middle French present robust evidence of various kinds of resultative/s-framed constructions that are distinct from those observed in Latin. Much of this data is new.

2.3.1 Directional/Aspectual Prefixes in Late Latin and Medieval French

- **Late Latin** (200-600 CE): the robustness of the prefix system is beginning to erode; see Haverling (2003). Some prefixes begin to be reanalyzed as part of some verb roots.
  - Recall the telicity alternation in Classical Latin: *edo* 'eat' vs ***com****edo* 'eat up' in (4); in Late Latin, *comedo* is used in atelic contexts.
  - Recall alternation in Classical Latin: *tacui* 'have been silent' vs ***con****ticui* 'have fallen silent'; in Late Latin authors confuse the forms: *conticui* in atelic contexts and *tacui* for 'stopped talking'.

- **Medieval French** has a reduced inventory of Path prefixes compared to Latin.
- In all cases the spatial meaning of the prefixes has faded dramatically, leaving them with the unique function of modifying the aspectual value of the event.
- Example (11): *porter* 'to carry' usually expresses an activity, but the addition of the prefix *a-* creates an accomplishment: 'to bring'.
- Example (12): the prefix *a-* shifts the activity verb *penser* 'to think' toward an accomplishment reading: *apenser* 'to realize'.

(11) a. *d'un grant baston de chesne quarré qu' il* ***portoit,***
of-a large stick of oak squared that he carry.IMP
'of a large squared-off piece of oak that he was carrying,'
(*Reg. crim. Chât,* II, 265, in DMF2009)

b. *Et lors commencierent damoiseles a* ***a****porter mes*
and then began ladies to *a*.carry food
'and then the ladies began to bring food'
(*Artu*, 34, in Dufresne et al. 2001)

(12) a. *car il* ***pensoit*** *bien que aucuns de l'ostel le roi le sivroit.*
for he thought well that someone from the-house the king him followed
'for he suspected that someone from the king's residence was following him.'
(*Artu*, 11, in Dufresne et al. 2001)

b. *Mais quant il ouy la freinte, il* ***a****ppensa tantost que Glaudes retournoit,*
but when he heard the noise, he *a*.think immediately that Glaudes return.IMP
'But when he heard the noise, he immediately realized that Glaudes was coming back,'
(Arras, 20, in DMF2009)

- Martin (2001) discusses hundreds of similar verbs that occur with the prefix *a(d)-* in Medieval French, focusing on the distribution, interpretation, and productivity of the prefix. The following alternations further demonstrate the aspectual function of the prefix.

(13) *(a)baisser* 'lower /lower down'*; (a)batter* 'hit/hit down';
(ac)cueillir 'gather/take'; *(a)couvrir* 'cover/cover up';
(*a)dévancer* 'be in front/arrive before'; *(ad)emplir* 'fill/fill up',
(ad)fermer 'close/close completely'; *(a)genouiller* 'kneel/kneel down';
(a)gloutir 'swallow/swallow up, make disappear'; *(ad)joindre* 'join/join up';
(a)mériter 'earn/completely earn'; *(a)mesurer* 'measure/measure up, rate'*;*
(a)miner 'ruin/ruin completely'; *(a)paroistre* 'seem/ appear suddenly';
(a)(par)piller 'pillage/completely destroy;
(a)passer 'pass/cross from one side to the other';
(a)pondre 'place/place down'; *(a)poursuivre* 'chase/chase down';
(a)raser 'demolish/entirely demolish';
(as)sasier 'appease/completely satisfy'; *(a)viser* 'look/recognize, identify'

- *a-* prefixation creates the activity/accomplishment alternation with manner of motion verbs producing Goal of Motion constructions (similar to Latin).

(14) a. *Et il* ***vola*** *si hautement*
and he flew so high.ADV
'and it flew so high'
(Mach, D. *Aler,* 1349, 356, in DMF2009)

b. *l'innumerable nombre de langoustes qui* ***ad****volerent en France*
the-innumerable number of locusts who to.flew in France
'the uncountable number of locusts that flew into France'
(Simon de Phares, *Astrol*, f° 107 v°, c.1494-98, in DMF2009)

- More examples of this alternation with motion verbs from Martin (2001):[3]

(15) *(a)brouer* 'flee/flee somewhere; *(a)ccourir* 'run/run over'
(a)devaler 'go down/go down to the bottom'; *(a)fluer* 'flow/over flow';
(a)guier 'guide/guide over'; *(a)mener* 'lead/bring';(*a*)*monter* 'go up/completely ascend; *(a)pleuvoir* 'rain/fall to the ground like rain'; *(a)river* 'skirt the shore/arrive at shore'; *(a)tourner* 'turn/turn to someone'; *(a)trainer* 'pull/lead somewhere;
(a)traire 'pull/lead somewhere'; *(at)tirer* 'pull/pull to subject'; *(a)trotter* 'trot/trot up'

- Other productive directional/aspectual prefixes in Medieval French; see Tremblay et al. (2003:555) and Kopecka (2009):

(16)

parler 'to speak'	***de****-parler* 'to speak ill about something'
tendre 'to stretch'	***e****-tendre* 'to stretch out'
amer 'to love'	***en****-amer* 'to fall in love'
querre 'to ask, seek'	***sor****-querre* 'to insist'
aler 'to go'	***por****-aler* 'to go all around'
geter 'to throw'	***par****-geter* 'to throw far'
voler 'to fly'	***tres****-voler* 'to fly across'

→ Crucially, there are no longer locative preposition/ directional prefix pairs. This signals the loss of the null prefixal Path morpheme.

- *a-, en-*, *par-* only have aspectual meanings; the relationship to the prepositions *a* 'to/at', *en* 'in/into', and *par* 'on/through' has been lost.
- *tres-, por-, e(s)-* have no prepositional counterparts.

2.3.2 Goal of Motion

- Similar to other s-framed languages (like Dutch), Medieval French can express both activities and directed motion using the same verb, presenting unergative syntax for the former and unaccusative syntax for the latter, shown below for *voler* 'to fly' and *courir* 'to run'. Note the auxiliary alternation.

[3] The prefix *a-* can also contribute an inchoative flavour to the event (reminiscent of *ad-* in Latin); examples from Martin (2001:312: *(a)fabler* 'tell stories/begin telling stories'; *(a)gouster* 'taste/begin tasting'; *(a)mouvoir* 'move/begin moving'; *(a)parler* 'speak/begin speaking to someone'*; (a)percevoir* 'see/notice'; *(a)plaire* 'to please/to be taken by the desire to do something'; *(a)penader* (for a horse) 'to hop, jump/to begin hopping, jumping'

(17) a. *Les aeles de vertus avoit* […]. *Donc Marie* ***est volee en haut, En la region*** *ou est chaut*
the wings of virtue had so Marie AUX flew in high in the region where is hot
'She had wings of virtue […]. So Mary flew up into the region where it is hot'
(*Bestiaire marial,* c.1333, 181, in TFA)

b. *Et quant il* ***avoit*** *tant* ***volé*** *que toz li monz le tenoit a merveille*
and when he AUX much flown that all the world him held at wonder
'And once he had flown around enough so that everyone marvelled at him'
(*Queste del Saint Graal*, 1225, 131, in TFA)

(18) a. *Mais tot li chevalier ensamble* ***i sont coru*** *por lui rescorre.*
But all the knights together there AUX run for him rescue
'But together the knights quickly ran there in order to rescue him.'
(*Vengeance Raguidel*, 1200, 33 in TFA)

b. *Tant* ***a coru*** *et porchacié,*
so.much AUX run and pursued
'So much did he run and chase,'
(Saint-Cloud, *Roman de Renart Branche 7*, c.1175, line 5835, in TFA)

- Other manner-of-motion verbs that occur with a directional interpretation in our corpus include *marcher* 'to walk/march', *danser* 'to dance', *cheminer* 'to make one's way', *chevaucher* 'to ride on horseback', *ramper* 'to climb', *flouer* 'to flow', *trotter* 'to trot'.

→ Crucially, many prepositions alternate between a locative and a directional interpretation (the directional interpretations are given below); see Troberg (2011) for more details.

→ Such an alternation can be formalized as the presence of a (free, non-prefixal) null Path morpheme, which contributes an added layer of meaning to the locative prepositions.

(19) a. *il* ***vole sur les rainceaulx*** *ou* ***sur les branches****.*
he flies onto the branches or onto the branches
'he flies onto small tree limbs or branches.'
(*Le Menagier de Paris*, c.1392-1394, 163, in DMF2009)

b. *Tantost après le conte de Salbry* ***marcha en Beaulce*** *et print Yenville*
soon after the count of Salsbury marched into Beauce and took Yenville
'Soon after, the count of Salsbury marched into Beauce and took Yenville'
(Tringant, *Commentaire du "Jouvencel"*, 276; 1477-1483, in DMF2009)

c. *en passant par la chambre et* ***cheminant aux nopces***
in passing by the room and making.his.way to.the wedding
'while passing by the bedroom and making his way to the wedding'
(*Cent Nouvelles Nouvelles*, c.1456-1467, 122, in DMF2009)

d. *qui* ***dansoient par la ville***
who danced through the city
'who were dancing throughout/around the city'
(Baye, *Journal*, t.1, 1400-1410, 48, in DMF2009)

e. *Et puys aprés nous* ***troterons en guerre.***
and then after we will.trot in war
'And then after we will trot into war.'
(de La Vigne, *La Ressource de la Chrestienté*, 1494, 133; in DMF2012)

f. *qui* ***sur les murs*** *estoient* ***rampés***
who on the walls AUX climbed
'who had climbed onto the walls'
(Cabaret D'orv., Chron. Loys de Bourb. C., 1429, 34; in DMF2012).

2.3.3 Verb particles

- Verb-particle combinations already appear in **Late Latin** (and perhaps as early as the Classical Latin period!). Iacobini (2009) suggests that they arise in order to reinforce the Path meaning that is decreasingly salient in some prefixes; examples from Iacobini (2009: 37).

(20) a. *retro regredi* (Cic. Bell. Afr. 50,2)
'to march back; to retreat/return back'
b. *retro…reverti* (Lucr. 1,785)
'to return/revert back'
c. *foras…exire* (Lucr. 3,772)
out leave

- Particles were also used to create a resultative interpretation with generic motion verbs in Late Latin (examples from Iacobini 2009: 37).

(21) a. ***Cecidit*** *de tertio cenaculo* ***deorsum***
'and fell down from the third loft'
(Act. apost. 20, 9; in Iacobini & Fagard 2011)

b. *Noli* ***foras ire****, in te ipsum redi*
'do not wish to go out, return into yourself'
(Aug., De vera relig. 39, 72; in Iacobini & Fagard 2011)

- **Medieval French** had a robust system of verb particles that could combine with verbs of all aspectual types to form telic events.

→ It is important to point out that these particles can also function as locative prepositions. Again, this fact implies the presence of a (free, non-prefixal) null Path morpheme. See Burnett & Tremblay (2009), and Marchello-Nizia 2002), among others for some discussion.

(22) a. *Garde le bien, tant que tu soies* ***ariere*** *revenus en Cornuaille.*
Keep it well, until that you are back returned in Cornwall
"Keep it well until you return to Cornwall."
(Trispr p.237, in Burnett & Tremblay 2009)

b. *il descendent del pals et viennent en la cort* ***aval***
They descended from.the palaces and came into the courtyard down
"They descended from the palaces and came down into the courtyard"
(Artu p.194, in Burnett & Tremblay 2009)

c. *li abati tout contreval La moitié de la teste* ***aval***
He to.hit all below the half of the head down
'He struck down the half of his head right below'
(Dame *Lycorne G.*, c.1349-1350, 181, in DMF2009)

d. *et le reversa* ***jus*** *a terre.*
And him re.spill down to ground
"and he dumped him down to the ground.
(Froissart, *Chron. D*., 1400, 387, in DMF2009)

e. *Et toutevoies recort il* ***sus*** *au serpent*
and however re.run him up to.the snake
"However, he pursues the snake again"
(Qgraal, p.94, in Burnett & Tremblay 2009)

- Another property of Medieval French verb particles that patterns with particles in strong s-framed languages like English, is their aspectual value. The addition of a Path particle to an atelic VP can create a telic VP:

(23) a. *Car souvent la hurte et la* ***boute*** *la mer*
because often it bangs and it hits the sea
'Because the sea often bangs and hits it'
(*Mir. Emper. Romme*, 1369, 282, in DMF2009)

b. *le* ***bouter jus***
him hit down
'to hit him down'
(*Cent Nouvelle Nouvelles*, c.1456-1467, 452, in DMF2009)

- Finally, MF particles many not only express spatial notions, but also aspectual ones.

(24) a. ***arriere*** *les voit* ***consillier***
again them see converse
'He sees them conversing again'
(Belinagr., p.85, in Burnett & Tremblay (2009))

b. *il s'entrecommencent a regarder et semont li uns l'autre*
they REFL-between.begin to look and ask the one the-other
de ***parler avant***
to talk forward
'They begin to look at each other and ask each other to start talking.'
(Artu p. 13, in Burnett & Tremblay (2009))

c. ***boire fors; manger fors; paiier fors***
drink out eat out pay out
'to drink up; to eat up; to pay up'
(Buridant 2000, 544)

2.3.4 Adjectival resultatives

- Medieval French presents numerous examples of weak adjectival resultatives. Such constructions often appear in s-framed languages.
- Some examples are given below, although we will not discuss them in detail our talk (but see Burnett & Troberg (2012); Burnett & Troberg (2013)).

(25) a. *que* ***mort*** *ne l'acraventet.*
that dead not him-crush
'so that it didn't crush him dead.'
(*La Chanson de Roland,* 285.3930, in MCVF)

b. *Que tricherie abat jus* ***plate****.*
that deception beats down flat
(Pizan, *Livre de la Mutacion de Fortune*, 1400, t.2, 29, in DMF2009)

c. *Une colder trencha par mi, tute* ***quarree*** *la fendi.*
A hazel.tree sliced through middle all square it cut.
'He sliced a hazel tree through the middle, he cut it right square.'
(Marie de France. [1160-70]. *Lais*. p.183 ; TFA)

d. *Et le despoillirent* ***tout nuz***
and him they.unclothed all naked
'they stripped him naked'
(*La Passion d'Autun*, 106; DMF2012)

e. *Li rois se taisi* ***tous quois***
the king REFL quietened all quiet '
'the king quieted right down'
(Froissart, 846.18593; MCVF)

2.3.5 Summary

The evolution of the French language saw three distinct grammatical systems:

I. **Latin:** prefixed goal of motion only.
II. **Old/Middle French:** prefixed goal of motion; bare goal of motion; verb particles; adjectival resultatives.
III. **Modern French:** no such productive resultative secondary predicate constructions.

	I. Latin	II. Medieval French	III. Modern French
Path prefixes	✓	✓	×
Goal of motion construction	(✓)	✓	×
Verb particles	×	✓	×
Adjectival resultatives	×	✓	×

Table 3*: The evolution of resultatives from Latin to Modern French*

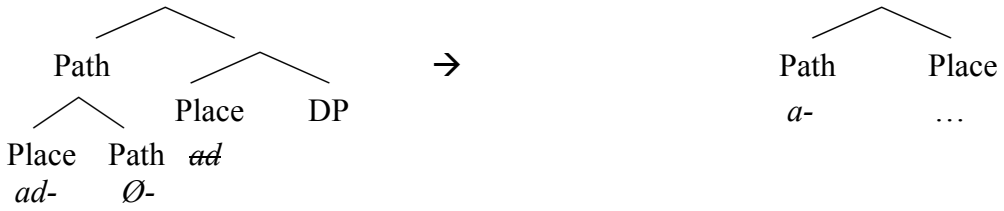
- **Conclusion:** The Old and Middle French period cannot be viewed as a "hybrid" between Latin and Modern French.

3. Cues for Path and Contingent factors (following Lightfoot 1999, 2006)

3.1 The loss of null prefixal Path : This is a classic case of grammaticalization, where the reanalysis involves internal merge being replaced with external merge.

- As the sound/meaning relationship is lost between the locative preposition and its directional prefix counterpart, so is the derivational relationship.
  - sound change – prefixes are less distinct from the root
  - semantic change – meaning distinctions among the prefixes are weakened

(26)



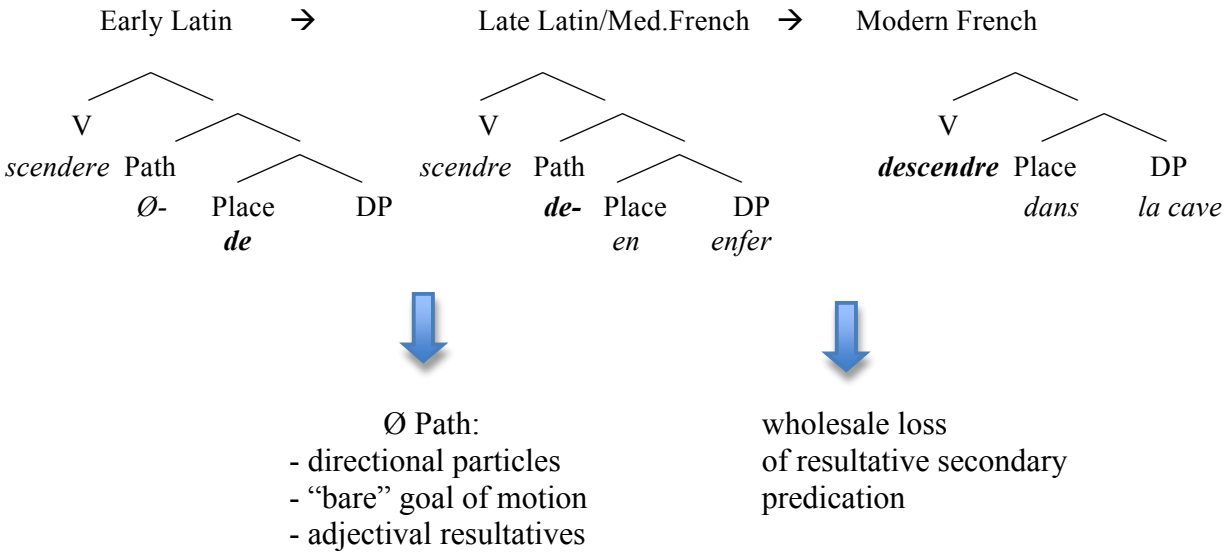
3.2 The appearance of null (<u>non-prefixal</u>) Path: (At least) two phenomena drive Late Latin speaking children to acquire the null Path morpheme.

- (i) Directional/result interpretations with monomorphemic verbs.
- For example: *descendre dans la cave/ monter sur le mur*
- Children must parse these as either Path in verb or Path in PP.
- Late Latin and Medieval French speakers parse them as Path in PP, involving null Path
- Why? A robust paradigm of dedicated overt Path exponents (*a-, de-, es-, en-, por-*, etc) now exist. These license the presence of the null morpheme.
- Null Path permits directional verb particles, unaccusative goal of motion, and adjectival resultatives.

3.3 The loss of null Path is contingent on the loss of productive Path prefixation.

- The reanalysis of telicizing prefixes as part of the verbal root (dating back as far as Classical Latin), is a very gradual process of low-level lexical changes as the preverb's aspectual contribution to the interpretation of the verb phrase is reanalyzed as a contribution derived from the idiosyncratic meaning of the verb root itself.
- A consequence of this lexical reanalysis is that the frequency of productive uses of the prefixes eventually falls below a given threshold so that children no longer have enough evidence to acquire the Path morphemes.
- When the overt exponents of Path are no longer acquired, the licensing environment for null Path disappears and so do the constructions dependent on it (the "catastrophic" change).
- Non-alternating directional/result readings (*descendre dans la cave*) are parsed as Path in verb.
- Ambiguous direction/result readings (*courir à la maison*): Path is pragmatically inferred.

(27) Evolution of the directional/result prefixes from Latin to Modern French



3.4 Tracking the loss of productive telicizing prefixation

The decline in frequency of Path prefixes in Medieval French is a gradual process that occurs at different times for different prefixes. For instance, Dufresne, Dupuis, and Longtin (2001) systematically study the evolution of the preverb *a-*, by far the most productive and the longest lasting, showing a steady decline over the centuries in new verbs formed by the addition of *a-*.

PÉRIODES	10e-13es.	14es.	15es.	16es.	17es.	18es.	19es.	20es.
# OCC.	312	24	18	12	1	3	2	2

Table 4: *Creation of a- prefixed verbs in French (Dufresne, Dupuis, and Longtin 2001: 37)*

Beginning with a baseline of 312 verbs used with the preverb *a-* in the 13th century, 24 new forms were created during the 14th century, 18 in the 15th century and 12 in the 16th century. From the 17th century, the process of *a*-prefixation is clearly defunct given that only eight new forms have since been created (by analogy with existing forms). In fact, the particular case of *a-* is part of a broader phenomenon involving the general loss of productivity in French verb prefixation from at least the 14th century onward, as pointed out by a number of scholars (see for example Bourciez 1967; Dufresne, Dupuis, and Longtin 2001).

→ We assume *a-* is the last aspectual prefix to survive in Medieval French. Dufresne et al. offer us a panorama of the evolution of *a-*, but in order to identify with more precision the point at which speakers actually began to analyse *a-* as part a verbal root and not as an independent Path morpheme, we examined the evolution of two prefixed verbs, *apenser* 'to realize' and *amesurer* 'to measure up'. These are verbs that show a robust and transparent alternation with their unprefixed counterparts *penser* 'to think' and *mesurer* 'to measure'. Interestingly, the prefix in these two cases is not reanalyzed as part of the verbal root; the verbs *apenser* and *amesurer* are not lexical items in Modern French. It is our hunch that relatively common prefixed verbs such as these fell out of use as a direct result of the loss of productive *a-* prefixation. If this were the case, we would expect to see an abrupt loss of the verb forms in the historical texts at approximately the same time period.

In order to test our hypothesis, we measured the frequencies of *apenser* and *amesurer* from 1300 onward, slicing the Medieval French corpus into 50-year periods based on the each author's (approximate) date of birth. The frequency was measured by comparing the number of tokens of each prefixed verb to the total number of words within a given slice of the corpus.[4] The measures are therefore extremely small numbers, but the evolution is unmistakable. Both prefixed verbs present a robust and stable frequency through the 14th century. At the beginning of the 15th century however, both show a sharp decline in numbers and by the mid 15th century these verbs are no longer attested.

		DMF2009 1300-1349	1350-1399	1400-1449	1450-1499	Frantext 1500 -1800
WORD COUNT		2,885,533	1,565,821	1,449,983	675,280	168 million
apenser	TOKENS	53	43	9	0	0
	FREQUENCY	**18** x 10^{-6}	**27** x 10^{-6}	**6** x 10^{-6}	**0**	**0**
amesurer	TOKENS	14	6	2	0	0
	FREQUENCY	**5** x 10^{-6}	**4** x 10^{-6}	**1** x 10^{-6}	**0**	**0**

Table 5*: Frequency of* apenser *and* amesurer *from 1300-1800*

If this small but fine-grained study is on the right track, then we can now say with some certainty that at least from the beginning of the 15th century, children were no longer acquiring *a-* as an independent dedicated Path morpheme. As a result, prefixed verbs in *a-* that were previously syntactically derived fell out, to be replaced by a close synonym. Of course, a number of prefixed verbs had already been lexicalized before the 15th century, many of which survive into Modern French (*arriver, apporter, abaisser*, etc.).

4. Quantitative Study of the Loss of S-Framed Patterns

In this section, we present a quantitative study of the change from the Medieval French system to the Modern French system:

- a study of the loss of verb-particle combinations
- a study of the loss of the goal of motion construction
- correlations with the loss of adjectival resultatives
- correlation with the loss of productive prefixation

Corpora:

- Data from the Old French period (12-13th centuries) come from the *Textes de français ancien* (TFA) database.
- Data from the Middle French period (14-15th centuries) come from the corpus associated with the *Dictionnaire du moyen français* (DMF).
- Data from the 16th and 17th centuries comes from the *Frantext* database.

[4] Our Medieval French corpus consisted of the Dictionnaire du Moyen Francais 2009 (http://www.atilf.fr/dmf/), and our Preclassic and Classic French corpus consisted of the Frantext database (http://artfl-project.uchicago.edu/content/artfl-frantext).

4.1 Loss of verb-particle constructions

- Many of directional/apectual particles have either disappeared from the modern language or been limited to locative prepositional uses.
- Some directional particles (like *arrière* 'back' and *avant* 'forward') have been preserved within PPs introduced by the resultative secondary predication marker *en*; see Legendre (1997).

(28) ARRIERE VS EN ARRIERE

a. *le mers reportoit le nef* ***ariere*** (Old French)
the sea re.bring the ship back
"the sea pushed the ship back"
(Clari, p.74, in Dufresne, et al. 2003)

b. *La mer a rapporté le navire* ***en arrière.*** (Modern French)

(29) AVANT VS EN AVANT

a. *Lors saut* ***avant*** *Girflez et dist a la reïne :...* (Old French)
So jump forward Girflet and says to the queen:
"So Girflet jumps forward and says to the queen:..."
(Artu, p. 319, in Burnett & Tremblay (2012))

b. *Alors Girflet a sauté* ***en avant*** *et il a dit à la reine:...* (Modern French)

Proposal: We can track the time course of the loss of the verb-particle system through tracking the replacement of directional uses of *arriere* and *avant* by *en arrière* and *en avant.*

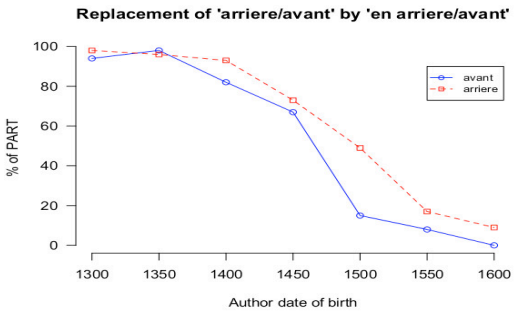
4.1.1 Results

	1300-49	**1350-99**	**1400-49**	**1450-99**	**1500-49**	**1550-99**	**1600-49**	**1650-99**
avant	165	85	98	25	6	6	0	0
En avant	9	1	21	12	32	72	25	37
% part.	**94**	**98**	**82**	**67**	**15**	**8**	**0**	**0**

Table 6: *Replacement of directional* avant *by en* avant *(by date of author's birth)*

	1300-49	**1350-99**	**1400-49**	**1450-99**	**1500-49**	**1550-99**	**1600-49**	**1650-99**
ariere	126	63	43	39	21	13	7	0
En arrière	2	2	3	14	22	61	73	0
% part.	**98**	**96**	**93**	**73**	**49**	**17**	**9**	**-**

Table 7: *Replacement of* arriere *by* en arriere



Graph 1*: Replacement of* avant/arriere *by* en avant/arriere

4.1.2 Discussion

- The loss of verb-particle constructions follows an S-shaped curve (more data is required to confirm the Constant Rate Hypothesis).
- Although the particles are alive and well in the 14th century, the occurrences of particle *avant/arriere* decline sharply over the course of the 15th century.
- We also tracked the frequency of *jus* as particle: its frequency declines dramatically in the 15th century and is obsolete by the 16th.
- Marchello Nizia (2002) claims that the particle *aval* falls out of use in the 15th century.

- **Conclusion:** The time-course of the loss of verb-particle combinations is not a slow drift, rather it bears similarities to other kinds of purely structural changes.

4.2 Loss of Goal of Motion

- Directional interpretations of manner of motion verbs combined with locative prepositions were lost from the Middle French period to the Modern French period.

(30) a. *il vole sur les rainceaulx ou sur les branches.*
he flies onto the branches or onto the branches
'he flies onto the small tree limbs or branches.'
(*Le Menagier de Paris*, c.1392-1394, 163, in DMF2009)

b. #Il vole sur les branches.
Only 'He flies on the branches' in Modern French.

Question: How to study changes in the interpretation of verbs in a quantitative manner?

Recall: Telic directional interpretations of manner of motion verbs are tied to unaccusative syntax (like in Italian and Dutch, for example).

(31) a. *Mais tot li chevalier ensamble* ***i*** ***sont coru*** *por lui rescorre.*
But all the knights together there AUX run for him rescue
'But together the knights quickly ran there in order to rescue him.'
(*Vengeance Raguidel*, 1200, 33 in TFA)

b. *Tant* ***a coru*** *et porchacié,*
so.much AUX run and pursued
'So much did he run and chase,'
(Saint-Cloud, *Roman de Renart Branche 7*, c.1175, line 5835, in TFA

Proposal: Since unaccusativity is no longer linked to directionality in Modern French, we can track the loss of the goal of motion construction through tracking the loss of unaccusative syntax with directional interpretations of manner-of-motion verbs.

A complication: The vast majority of Modern French manner of motion verbs don't have directional interpretations.

But not all of them...

- Cummins (1996); Kopecka (2006), i.a.: Modern French still allows directional telic interpretations of manner verbs such as *courir* `run′ and *sauter* `jump' (and *marcher* 'walk' for some speakers).

(32) a. *Jean a couru à la maison en 5 minutes.*
'Jean ran to the house in 5 minutes'.
b. *Sara a sauté sur pont en 2 secondes.*
'Sara jumped onto the bridge in 2 seconds.'
c. *Paul a marché sous le pont en 2 minutes.*
'Paul walked under the bridge in 2 minutes' (for some speakers only)

Proposal': We can track the loss of the goal of motion construction through tracking the loss of unaccusative syntax with directional interpretations of verbs of the *courir*-class.

- We track the replacement of the *estre* auxiliary by the *avoir* auxiliary in the passé composé with *courir* and *marcher.*
- Our investigations show that *sauter* replaces *saillir* as the verb meaning 'to jump' in the 14th century; therefore, this verb is not suitable for our study.

Note: The use of the *avoir* auxiliary with the atelic construal of *courir* and *marcher* is categorical in our corpora.

4.2.1 Results

	1100-99	**1200-99**	**1300-99**	**1400-99**	**1500-99**
Estre auxiliary	11	4	13	2	1
Avoir auxiliary	0	0	7	10	27
% estre	**100**	**100**	**65**	**16**	**4**

Table 8: *Loss of unaccusativity with directional interpretations of* courir

- Occurrences of *marcher* with an auxiliary are much rarer than *courir*; however, evolution of the goal of motion construction with *marcher* follows the same basic pattern as with *courir.*
- At the end of the 16th century, atelic interpretations of *marcher* (with the *avoir* auxiliary) are far more frequent than telic ones (26 atelic vs 3 telic).

	1100-99	**1200-99**	**1300-99**	**1400-99**	**1500-99**
Estre auxiliary	1	0	1	1	1
Avoir auxiliary	0	0	1	4	8
% estre	**100**	**-**	**50**	**20**	**11**

Table 9: *Loss of unaccusativity with directional interpretations of* marcher

4.2.2 Discussion

- The decline of the goal of motion construction appears to begin in the 14th century, slightly earlier than the verb particles. Ideally, these results would be strengthened with more data.
- What does this tell us? In the 12th and 13th centuries, speakers parse directional uses of *courir* and *marcher* as Path in PP (with null Path). At some point in the 14th century, children parse these same uses as Path in verb (no null Path).

4.3 Summary

- The unaccusative goal of motion construction appears to decline at some point in the 14th century and the aspectual preverbs fall dramatically from the beginning of the 15th century. This signals the loss of the null Path morpheme.
- These changes (roughly) correlate with the loss of the lexical items *apenser* and *amesurer*, syntactically derived prefix-verb combinations that both begin to rapidly disappear in the 15th century. This is relevant given our claim that overt Path exponents like *a-* license null Path. The loss of *a-* prefixation should herald the loss of derivations that depend on null Path.
- In all cases, the evolution of the constructions follows an S-shaped curve, which contradicts the received "drift" view of the change.
- We have yet to find an appropriate way to systematically study the loss of adjectival resultatives in the language, but we note that the last adjectival resultative construction identified in our corpus is written by François Villon, born in the first half of the 15th century.

5. Conclusion

- In this paper, we identified a tension between certain current synchronic accounts of the s-framed/v-framed typological distinction (structural accounts) and certain diachronic proposals concerning the shape of the evolution of resultative predication from Latin to Modern French.
- We argued that Late Latin/Medieval French innovated a cluster of resultative s-framed constructions that were not present in Latin. Our results are in line with the diachronic predictions of the structural view of the s-framed/v-framed distinction in which the transition from s-framed to v-framed would be attributed to a change in the inventory of functional items associated with the PATH projection.
- We proposed an explanation for the contingent e-language that would have driven Late Latin speakers to acquire a different paradigm of Path morphemes. We also suggested an explanation for why 14th century French speakers did not acquire the Late Latin/Medieval French system.

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