On the Diachronic Semantics of Resultative Constructions in French

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This paper presents a novel study of resultative secondary predication constructions in Old and early Middle French (12th-15th centuries). We show that the Old French period saw the emergence of new resultative structures that did not exist in Latin. Thus, contrary to claims in the literature (i.e. Stolova 2008, Kopecka 2009, Iacobini and Fagard 2011, among others), we argue that the development of the Modern French resultative system should not be thought of as a "slow drift" from the Latin system to the modern system. Rather, the evolution of resultatives in the Gallo-Romance family should be characterized as passing through three distinct grammatical stages: (i) the Latin stage containing prefixed prepositional resultative constructions; (ii) the Old French stage, which shows a completely different pattern of resultative predication featuring unprefixed prepositional resultatives and weak (i.e. non-aspect changing) adjectival resultatives; and (iii) the Classical French/Modern French stage, in which resultative secondary predication is largely absent. Furthermore, we propose that the parallel diachronic behaviour of adjectival and prepositional resultatives in the history of French constitutes an argument in favour of a unified grammatical analysis of these two constructions. We suggest that the compositional semantic process that is common to both of these constructions throughout time is result-state modification, not telicization, as is generally assumed in the literature.

Keywords: resultative constructions, compositional semantics, Old French, Latin, syntactic change

1 Introduction

This paper presents a diachronic investigation into the syntax and compositional semantics of a particular class of telic verb phrases (VPs): **resultative secondary predication constructions**. The resultative constructions that we will focus on in this paper are divided into two subclasses: **adjectival** resultatives (A-ResPs) and **prepositional** resultatives (P-ResPs). A-ResPs are constructions in which transitive VPs are combined with an adjective that describes the state of the direct object at the end of the event, as in (1). These constructions uniformly have a telic interpretation/construal, as shown by the fact that they can be felicitously followed by temporal adverbials such as *in an hour*.

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- (1) a. John beat the metal **flat** (*in an hour*).
 - b. The tractor dragged the logs **smooth** (*in an hour*).
 - c. Mary shot the thief **dead** (in 2 seconds).

In languages like English, the VP base from which A-ResP constructions can be built can be either telic, as in (2c), or atelic, as in (2a)/(2b).

(2) a. *John beat the metal in an hour.

(atelic VP base)

b. *The tractor dragged the logs in an hour.

(atelic VP base)

c. Mary shot the thief *in 2 seconds*.

(telic VP base)

The second subclass of resultatives that we consider are P-ResPs: in languages like English, atelic *manner of motion* VPs, shown in (3), can be combined with locative PPs such as *under the bridge, behind the curtain*, and *inside the cave* to create a telic directional interpretation, as in (4). For example, the sentence in (4a) can be used to describe an event in which the bottle starts off somewhere that is not under the bridge, does some floating, and ends up underneath the bridge after 5 minutes.

- (3) a. *The bottle floated in 5 minutes.
 - b. *John danced in 5 minutes.
 - c. *John walked in 5 minutes.
- (4) DIRECTIONAL INTERPRETATION
 - a. The bottle floated under the bridge in 5 minutes.
 - b. John danced behind the curtain in 5 minutes.
 - c. John walked inside the cave in 5 minutes.

English verb phrases like *float under the bridge, dance behind the curtain*, and *walk inside the cave* also have an atelic locative interpretation, as in (5). However, since it is only the telic directional interpretation that characterizes the P-ResP construction, we will largely set aside this interpretation in the rest of this paper.

- (5) LOCATIVE INTERPRETATION
 - a. The bottle floated under the bridge for 5 minutes.
 - b. John danced behind the curtain for 5 minutes.
 - c. John walked inside the cave for 5 minutes.

As shown by the examples (1) and (4), some languages, like English, have both A-ResPs and P-ResPs; however, some languages, such as Modern French (MF), lack both of these constructions Bergh 1940, Vinay and Darbelnet 1958, Talmy 1985, and subsequent work. As shown in (6), the vast majority of Modern French manner verbs disallow telic directional interpretations with locative PPs, and adjectival resultative constructions are (almost laughably) ungrammatical in this language, as in (7).

(6) La bouteille a flotté **sous le pont** *en 5 minutes. The bottle has floated **under the bridge** in 5 minutes 'The bottle floated under the bridge *in 5 minutes.'

(7) *Jean a martellé le métal **plat**.

Jean has hammered the metal **flat**

In the literature on the cross-linguistic expression of motion and result, the contrasts between English and Modern French are generally taken to be reflexes of an important typological difference between the Germanic and Romance families: languages like English that allow such constructions are often called (after Talmy 1985, 2000) **satellite-framed**, and languages like French that do not allow them are called **verb-framed**.

The observation that there exists cross-linguistic variation in the grammatical inventory of resultative constructions leads naturally to the observation that there also exists diachronic variation in this aspect of the grammar. For example, while Modern French lacks the kind of resultatives described above, Latin (the language from which French developed) allows P-ResPs (Talmy 1985, Acedo-Matellán 2010, Iacobini and Fagard 2011, among others). In particular, Latin can combine manner verbs with locative prepositional prefixes (like *ad-* 'at') to form directional telic VPs, as in (8).

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

Examples such as (8) show us that the grammatical elements that construct and interpret ResP constructions (for example: productive verbal prefixation and the presence of an abstract grammatical property/properties that allow such prefixes to contribute a telic interpretation to the VP) changed from the Latin period to the Modern French period. That Latin's ResP constructions were lost in the development of the Modern Romance languages (especially in the history of French, Spanish, and Catalan) is well-known, and, in fact, the general consensus in the literature is that there was a slow "drift" from the Latin system (with ResPs) to the MF system (without ResPs); see Stolova 2008, Kopecka 2009, Iacobini and Fagard 2011. This being said, there has been very little in-depth study of resultative predication in intermediary stages of the language (i.e. Old French, Old Catalan, etc.). Thus, the first main contribution of this paper is to present a novel synchronic study of resultative secondary predication constructions in Old and early Middle French (12th-15th centuries). Based on this inquiry, we argue against the "slow drift from Latin to Modern French" hypothesis. In particular, we show that the OF period saw the emergence of new ResP structures that did not exist in Latin, and we argue that the development of the Modern French ResP system should be characterized as passing through three distinct grammatical stages: (i) the Latin stage containing P-ResPs such as (8); (ii) the Old French stage, which shows a richer pattern of resultative predication (described in section 3); and (iii) the Classical French/Modern French stage, in which resultative secondary predication is largely absent in the language.

The second main contribution of our paper concerns the grammatical foundations of resultative secondary predication. In particular, we address the following theoretical question concerning the compositional semantics of ResPs: Do the construction and interpretation of adjectival and prepositional resultatives involve the same grammatical elements (i.e. parameter settings, functional items, or composition rules, etc.)? This is a question that has received a considerable amount of attention in the formal syntax and semantics literature, and we find therein two main views on this topic: the first view, which is argued for in works such as Higginbotham 2000,

Table 1 Sample typology of ResPs

Resultatives	English	Korean	Javanese	French
Adjectival	✓	✓	×	×
PREPOSITIONAL	✓	×	✓	×

Talmy 2000, Snyder 2001, Beck and Snyder 2001, Zubizaretta and Oh 2007, Gehrke 2008, among others, and which we might call the **unified** view, proposes that there exists a close grammatical relationship between A-ResPs and P-ResPs. Furthermore, the majority of the advocates of the unified view propose that languages which allow ResPs have a single property that enables atelic manner VPs to be telicized through the addition of a secondary predicate (prepositional or adjectival). A prediction of this view is that, a priori (unless there are other obscuring grammatical factors at play), we should find a robust co-occurrence of both A-ResPs and P-ResPs cross-linguistically.

The second view found in the literature, argued for in works such as Son 2009, Son and Svenonius 2008, and which could be called the **non-unified** view, proposes that there is a less clear grammatical relationship between A-ResPs and P-ResPs; that is to say, the grammatical correlation between A-ResPs and P-ResPs is more subtle than assumed and that cross-linguistic variation is determined lexically, by the very meaning of verbs and by the inventory of available lexicalizations of functional material in the nano-syntax. One argument in favour of this view is that a survey of the inventory of resultative secondary predication constructions across many languages shows that there is no clear correlation between the presence of adjectival resultatives and their prepositional counterparts. For example, as shown in Table 1, some languages, like Korean, have A-ResPs and no P-ResPs, while some languages, like Javanese, have P-ResPs but no A-ResPs.

In the body of the paper, we will see that A-ResPs and (un-prefixed) P-ResPs emerge together from Latin to Old French, and furthermore, Burnett and Troberg 2013 show that A-ResPs and P-ResPs die out at about the same time from Old French to late Middle French. We therefore argue that the parallel diachronic behaviour of A-ResPs and P-ResPs is a strong argument in favour of the unified grammatical analysis of these constructions. On the other hand, we also show that Old French adjectival resultative predication and prepositional resultative predication have different aspectual properties. In particular, we argue that OF adjectival resultative predication cannot telicize an atelic VP (unlike OF P-ResPs). Thus, we propose that the grammatical process that is common to A-ResPs and P-ResPs is result-state **modification**, not result-state creation.

The paper is organized as follows: in section 2, we briefly describe the state of resultative secondary predication in Modern French, and, in section 3, we give a description of the inventory of ResP constructions in Old and Middle French. Then, in section 4, we compare the Old French ResP system to the Latin ResP system and argue that they show a typologically different pattern. Finally, section 5 summarizes the main empirical patterns described in this work and presents some concluding remarks on the cross-linguistic patterns of clustering of resultative constructions.

2 Resultative Predication in Modern French

It is well-known that, in Modern French, neither atelic VPs, as in (9), nor telic VPs, as in (10), can be combined with an adjective phrase to form a resultative construction. Furthermore, "intransitive" A-ResPs (such as the English *I danced myself tired*), as in (9c), are likewise ungrammatical.¹

- (9) a. *Jean a battu le métal **plat**.

 Jean has beaten the metal **flat**
 - b. *Les chevaux ont trainé les bûches **lisses**.

 The horses have dragged the logs **smooth**
 - c. *Je me suis dansé **fatigué**. I REFL am danced tired.
- (10) a. *Jean a essuyé la table **propre**.

 Jean has wiped the table **clean**
 - b. *Jean a abattu le voleur **mort**.

 Jean has beat down the burglar dead

As observed by Kopecka 2006, among others, French (like other Romance languages, see Folli and Ramchand 2005 for Italian and Fábregas 2007 for Spanish) allows a set of verbs to occur with prepositional secondary predicates, giving a telic directional interpretation. These are the so-called *directed manner of motion* verbs. Although this set of verbs varies from language to language (and, based on our investigations, even from speaker to speaker), in French, it contains at least the verbs *courir* 'run' and *sauter* 'jump'. As shown in (11), although bare VPs formed with these predicates have no directional telic interpretations, they can acquire such interpretations once combined with locative PPs, as in (12).²

¹Interestingly, a particular subset of weak A-ResPs are acceptable in French, namely, those formed with verbs of colouring like *peinturer* 'to paint' and *teindre* 'to dye'.

- (i) a. Marie a peinturé le mur **bleu**. Marie has painted the wall **blue**. 'Marie painted the wall blue.'
 - Marie s'est teint les cheveux noirs.
 Marie REFL-is dyed the hair black 'Marie dyed her hair black.'

There are arguments that the sentences in (i) are instances of a different (although very similar) type of secondary predication from the kind studied in this work. One such argument points out that even in languages that otherwise prohibit A-ResP, like the Slavic languages, A-ResPs with *dye* are allowed, as shown in the example (ii) from Bulgarian.

Bojadisah si kosata černa. (Bulgarian: Roumyana Pancheva (p.c.))
 dye.1sg Refl hair black
 'I dyed my hair black'

We therefore simply note the existence of this construction, leaving its analysis to future work on the compositional semantics and typology of A-ResPs.

²Although the French preposition \dot{a} is sometimes translated into English as directional to, it is, in fact, an unambiguously locative preposition in French with the meaning 'at':

(i) Le chat est/reste à la maison. The cat is/stays at the house 'The cat is/stays home.'

(11) ATELIC MM VERBS

- a. Jean a couru pendant 30 minutes/*en 30 minutes.

 Jean has run for 30 minutes/*in 30 minutes

 'Jean ran for 30 minutes/*in 30 minutes.'
- Jean a sauté pendant 2 secondes/#en 2 secondes.
 Jean has jumped for 2 seconds/#in 2 seconds
 'Jean jumped for 2 seconds/#in 2 seconds.'
 (in 30 min only ok if in = after)

(12) Telic MM verb + PP

- a. Jean a couru à la maison en 30 minutes. Jean has run at the house in 30 minutes 'Jean ran to the house in 30 minutes.'
- b. Jean a sauté dans la piscine en 1 seconde. Jean has jumped in the pool in 1 second 'Jean jumped into the pool in 1 second.'

However, this pattern is not general in the language. Other manner of motion verbs, those that we might call *pure* manner-of-motion verbs (*float, dance, wiggle, crawl, fly, walk,* etc.), do not give rise to telicity alternations (for most speakers) in prepositional secondary predication constructions.

- (13) a. Jean a marché à la maison *en 30 minutes. Jean has walked at the house *in 30 minutes. 'Jean walked at home *in 30 minutes.'
 - b. La bouteille a flotté dans la caverne *en 2 minutes. The bottle has floated in the cave *in 2 minutes. 'The bottle floated inside the cave *in 2 minutes.'
 - c. L'oiseau a volé dans la caverne *en 5 secondes.
 The bird has flown in the cave *in 5 seconds.
 'The bird flew inside the cave *in 5 seconds.'

We therefore conclude that P-ResPs are not productive in Modern French, certainly not in the way that they are in English, where almost any manner-of-motion verb may appear in the goal-of-motion construction. Only a small set of manner-of-motion verbs can occur in what appears to be a goal-of-motion construction. In the next section, we present new data concerning ResPs in Old and Middle French,³ and we will argue that the ResP system of this stage of the language is much less restrictive than Modern French and looks more like the system in languages like English.

3 Resultative Predication in Old and Middle French

As observed by Troberg 2011, manner-of-motion verbs in Medieval French can combine with a locative PP to form a telic goal of motion construction. We find these constructions in our corpus

³Unless otherwise stated, the examples presented in this section come from two electronic corpora: the *Textes de français ancien* (TFA) corpus (12th-13th centuries) and the corpus associated with the *Dictionnaire de moyen français* (14th-16th centuries). The quantitative studies were done on the *TFA* corpus.

with such verbs as *voler* 'to fly', *trotter* 'to trot', *cheminer* 'to make one's way', and *marcher* 'to walk/march', and as shown in (14). Recall that this possibility is absent from the grammar of Modern French.

- (14) a. il vole **sur les rainceaulx** ou sur les branches. he flies on the branches or on the branches 'he flies onto small tree limbs or branches.'

 (Le Menagier de Paris, 163; DMF)
 - b. Et puis après nous troterons en guerre.
 And then after we trot.fut into war
 'And then after we will trot off to war.'
 (de La Vigne, *La Ressource de la Chrestient*, 133; DMF)
 - c. en passant par la chambre et cheminant **aux nopces** in passing by the room and making.his.way at.the wedding 'while passing by the bedroom and making his way to the wedding' (*Cent Nouvelles Nouvelles*, 122; DMF)
 - d. le chevallier se leva [É], et marcha **hors de son pavillon** the knight REFL raised [] and walked out of his tent 'the knight got up [É] and walked out of his tent' (de la Marche, *Mémoires*, t. 2, 183; DMF)

In support of the claim that the sentences in (14) are indeed *goal of motion* constructions (i.e. that they all involve directional interpretations of **locative** PPs), we demonstrate that all the PPs in (14) are not restricted to a directional meanings, but can also have a locative interpretation with manner verbs, as shown in (15).

- (15) a. si aucun oysel vole **sur icelui endroit**, incontinent chet mort à terre. if certain bird flies on this place immediately falls dead to earth 'if any bird flies over this place, it immediately falls dead to the ground.' (Simon de Phares, *Astrologues*, 87; DMF)
 - b. et cevauçans **en France** nuit et jour and riding in France night and day 'and riding in France day and night.'

 (Froissart, *Chroniques*, 569; DMF)
 - c. Ne qu'on puet **au firmament** Sans eles voler nor that'one can at.the firmament without wings fly 'Nor can one fly in the heavens without wings' (Guillaume de Machaut, *Les Lays*, 388; DMF)
 - d. chevauchierent devant **hors de l'avant-garde** rode.3PL ahead out of the-vanguard 'they rode ahead, apart from the vanguard' (Froissart, *Chroniques*, 329; DMF)

The two interpretations of sentences with manner verbs and locative PPs can be distinguished by morphological means: the telic goal of motion construction involves an unaccusative syntactic structure, as in (16), whereas the atelic construal of the VP involves an unergative syntactic structure, as in (17).

- (16) a. Les aeles de vertus avoit [...]. Donc Marie est volee en haut, En la the wings of virtue had so Marie aux fly.pst.ptcp in high in the region ou est chaut 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; TFA)
 - b. Mais tot li chevalier ensamble i **sont** coru por lui rescorre. But all the knights together there aux run.pst.ptcp for him rescue 'But together the knights quickly ran there in order to rescue him.'

 (Vengeance Raguidel, 1200, 33; TFA)
- (17) a. Et quant il **avoit** tant volé que toz li monz le tenoit a merveille and when he AUX much fly.PST.PTCP 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)
 - b. Tant a coru et porchacié, so.much AUX run.PST.PTCP and pursue.PST.PTCP 'So much did he run and chase' (Saint-Cloud, *Roman de Renart Branche 7*, 5835; TFA)

The auxiliary alternation that we see in OF is familiar from goal of motion constructions in other languages such as Dutch and Italian, where the resultative construction is an unaccusative construction, as in (18), and the non-resultative construction is unergative, as in (19).

(18) Telic unaccusative

- a. dat Jan in twee uur naar Groningen is gewandeld that Jan in two hour to Groningen AUX walk.pst.ptcp 'that Jan walked to Groningen in two hours'

 Dutch (from Zubizaretta and Oh 2007:2)
- b. La palla è rotolata sotto il tavolo in un secondo/*per un secondo.
 The ball AUX rollpst.ptcp under the table in one second/*for one second.
 'The ball rolled under the table in one second/*for one second.'
 Italian (from Folli and Ramchand 2005:92)

(19) Atelic unergative

- a. dat Jan naar Groningen twee uur lang **heft** gewandeld. that Jan to Groningen two hour long AUX walk.PST.PTCP 'that Jan walked in the direction of Groningen for two hours.' **Dutch** (from Zubizaretta and Oh 2007:3)
- b. La palla **ha** rotolato sotto il tavolo per un secondo/*in un secondo.

 The ball AUX roll.PST.PTCP under the table for one second/*in one second.

 'The ball rolled under the table for one second/*in one second.' **Italian** (from Folli and Ramchand 2005:92)

In addition to a goal of motion construction, as observed by Buridant 2000, Dufresne et al. 2003, and Burnett and Tremblay 2009, Old French allows another type of P-ResP formed with intransitive prepositional elements (i.e. particles). Examples of the Old French verb-particle construction are shown in (20).

- (20) 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 and 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 and Tremblay 2009)
 - c. et le reversa **jus** a terre.
 And him re.spill down to ground
 'and he dumped him down to the ground.'
 (Froissart, *Chron. D.*, 387, in DMF)
 - d. Et lors i envoia Lancelos avant messages por dire qu'il and then there sent Lancelot forward messengers for to.tell that-he venoit; was.coming 'And then Lancelot send forth messengers there to tell that he was coming;' (Mort le roi Artu, p. 126; TFA)

As the examples above demonstrate, the particle and the main verb do not form a syntactically atomic cluster and can be separated, for instance, by a subject or a PP. Furthermore, a particle and a transitive verb could be separated by the direct object, as shown in (21).

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

In sum, Old French appears to allow the full range of P-resultatives that languages like English do, and this situation constitutes a stark contrast to the situation found in Modern French.

Contrary to both Latin and Modern French, Old French allows adjectival resultative secondary predication constructions.⁴ Some examples of A-ResPs found in our corpus are shown in (22)

- (22) a. Et le despoillirent tout **nuz**. and him plucked all naked 'And they plucked him completely naked.' (*La Passion d'Autun*, 106; DMF)
 - b. Que Tricherie abat jus plate.
 that Deception beats down flat
 'That deception beats down flat.'
 (Pizan, Livre de la mutacion; DMF)
 - c. Andeus les geta **mors** en mi la pree. two them threw dead in middle the field 'He beat both of them dead in the middle of the field.' (Anon. *Aiol*, 45; TFA)

⁴See Troberg and Burnett 2014 for a detailed treatment of A-ResPs in Medieval and Modern French.

- d. Li rois se taisi tout **quois**. the king REFL all quiet
 'The king quieted himself quiet.'
 (Froissart, 846.18593; MCVF)
- e. tute **quarree** la fendi all square it cut 'he cut it completely square' (Marie de France, *Lais*, 183; TFA)

The examples in (22) show a number of verb+adjective combinations: despouiller nu 'to pluck naked'; abatre plat 'to beat down dead'; geter mort 'to kill dead (by beating)'; se taire coi 'to quiet quiet'; fendre carré 'to cut square'. However, we might wonder whether such constructions are truly productive in the language or whether they are simply fixed idiomatic expressions. We argue that A-ResPs are indeed productive in Old French. Although productivity is more difficult to assess for a construction in a dead language than in a living language, we can observe that there are many distinct attested verb+adjective pairings, something that would be unexpected if the construction were not productive. For example, if we look at an adjective that is particularly common in our corpus, such as mort 'dead', we find A-ResPs formed on the basis of many predicates such as abatre 'to beat down', cravanter 'to crush', acravanter 'to crush', jeter 'to throw/chuck', as in (23).

- (23) a. Que mort l'a **abatu** et **craventé**. that dead him has beat down and crushed 'That he beat him down and crushed him dead.' (Anon., *Aiol*, 39; TFA)
 - b. Et le prïeus nous avés mort **jeté**. and the priest us had dead thrown 'And the priest had killed us dead.' (Anon., *Moniage Guillaume*, 135; TFA)
 - c. Mort l'a **acrevanté** le nobille guerrier dead him have crushed the noble warrior 'The noble warrior crushed him dead' (*Chanson de Roland*, 285.3930; MCVF)
 - d. u il ainceis l' ot mort **rué**where he thus him has dead thrown
 'where he thus beat him dead'
 (Anon., *Gormont et Isembart*, 34)

Furthermore, if we consider a verb, such as *abatre* 'beat down', that frequently appears in an A-ResP construction, we can observe that this verb can co-occur with many distinct adjectives such as *mort* 'dead', *plat* 'flat', *pasmé* 'senseless', and *estendu* 'streched out', as in (24).

(24) a. Toute plaine sa lanche **mort** l'abati.
all full his lance dead him beat down
'With the full force of his lance, he beat him down dead.'
(Anon., *Aiol.*, 91)

- b. Et tout **plat** a terre l'abatent and all flat at ground him-beat 'And they beat him completely flat to the ground' (de Boron, *Roman de l'Estoire dou Graal*, 25; TFA)
- Enmi l'encloistre l'abati tout pasmé.
 in middle the cloister him beat all senseless
 'He beat him down completely senseless in the middle of the cloister.'
 (Anon., Moniage Guillaume, 33; TFA)
- d. Tout estendu l'abatent
 all extended him beat
 'They beat him down and left him spread out on the ground'
 (Anon., Aiol., 202; TFA)

Now that we have established the existence of A-ResPs in Old French, we can consider whether, in this area of the grammar, Old French displays the typological profile of English, which allows a wide range of adjectival resultatives, or whether the construction in Old French is more restricted. Following the influential work of Washio 1997, we distinguish between two subclasses of A-ResPs: strong resultatives and weak resultatives. We will call an A-ResP construction a **strong** resultative just in case its main VP, when used bare, has no telic interpretation.⁵ For example, since the English VPs *hammer the metal*, *drag the log*, and *beat the door* all have no telic construal, the English constructions in (25) are strong resultatives.

(25) STRONG RESULTATIVES

- a. John hammered the metal **flat**.
- b. The horses dragged the log **smooth**.
- c. Sarah beat the door **closed**.
- d. Mary shook the box **empty**.

Other examples of strong resultatives in English are the "intransitive" resultatives (to run your feet raw/to run yourself tired). Since the grammatical bare VP (to run) is only atelic and the corresponding secondary predication construction is telic, by our definition, these constructions are also instances of strong resultative predication. In summary, strong resultative predication has the following property:

(26) Strong resultative secondary predication changes the inner aspect of the VP from atelic to telic.

Correspondingly, we will call an A-ResP construction a **weak** resultative just in case its main VP, when used bare, has at least one telic interpretation. Some VPs in English have only a telic interpretation, as shown in (27a). When they combine with an adjectival secondary predicate, the adjective modifies the end-state provided by the telic VP, as in (27b).

⁵This is not quite Washio's description of the strong/weak distinction; in his 1997 paper, he describes strong A-ResPs as resultatives in which "the meaning of the verb and the meaning of the adjective are completely independent of each other" (p. 7), and weak A-ResPs are those resultatives that are not strong (p. 8). Unfortunately, this description is somewhat vague, so it is difficult to apply Washio's criteria to examples in new languages (like Old French) in a systematic manner. However, based on our own work with native speakers of Japanese (the language studied by Washio), we observe that it is possible to cash out his intuition about the relation between the main verb and the result-state describing adjective in the aspectual terms proposed here (in (26) and (30)).

- (27) a. John killed the burglar *for 5 seconds/in 5 seconds.
 - b. John killed the burglar **dead** *for 5 seconds/in 5 seconds.

Many other English VPs have both a telic and an atelic construal, ⁶ as shown in (28).

- (28) a. John wiped the table for 20 minutes/in 20 minutes.
 - b. John swept the house for 20 minutes/in 20 minutes.
 - c. John shot the burglar for 5 seconds/in 5 seconds.
 - d. John kicked the door for 5 seconds/in 5 seconds.

In English, the VP in its telic interpretation⁷ can be combined with an adjective which can then modify the result state of the telic event described by the main VP.

- (29) a. John wiped the table **clean** *for 20 minutes/in 20 minutes.
 - b. John swept the house **clean** *for 20 minutes/in 20 minutes.
 - c. John shot the burglar **dead** *for 1 second/in 1 second.
 - d. John kicked the door **closed** *for 1 second/in 1 second.

In other words, weak resultative secondary predication has the following property:

(30) Weak resultative secondary predication does not change the inner aspect of the VP; it creates telic VPs from telic VPs.

Whether or not a language allows both strong and weak A-ResPs is a point of typological variation. For example, Washio 1997 argues that Japanese differs from English in that it only allows weak (in our perspective: non-aspect-changing) resultative predication. For example, the VP *yukao haita* 'swept the floor' has a telic construal, as shown in (31), and, correspondingly, A-ResPs are allowed, as in (32).

- (31) John-ga 30 pun-de yuka-o hai-ta.
 John-NOM 30 minutes-in floor-ACC sweep-PAST
 'John swept the floor in 30 minutes.'
- (32) John-ga 30 pun-de yuka-o **kirei-ni** hai-ta.
 John-nom 30 minutes-in floor-ACC **clean** sweep-past 'John swept the floor clean in 30 minutes.'

- (i) John shot the burglar **to death** with 5 shots in 2 minutes.
- (ii) a. #John shot the burglar dead with 5 shots.
 - b. #John kicked the door **closed** with 5 kicks.

⁶See Kearns 2007 for a discussion of the distribution of the phenomenon of variable telicity in English.

⁷An argument that A-ResPs are formed from underlying telic VPs comes from the interpretation of resultatives formed from semelfactive verbs such as *shoot* and *kick*. As observed by Comrie 1976, when VPs with these verbs are construed telically, they describe punctual actions (achievements). On the other hand, when they are construed atelically, these VPs describe repeated punctual actions. When they appear in an A-ResP construction, they are obligatorily interpreted as punctual. As observed by Beavers 2008, the atelic repetitive construal of *shoot* requires the PP *to death* to form a resultative construction.

However, if we take a VP that has no telic construal, such as *kinzokuo tataita* 'beat the metal' (33), as Washio shows, A-ResPs are not permitted, as in (34).

- (33) John-ga 30 pun-kan/*30 pun-de kinzoku-o tatai-ta. John-NOM 30 minutes-for/*30 minutes-in metal-ACC beat-PAST 'John beat the metal for 30 minutes/*in 30 minutes.'
- (34) *John-ga kinzoku-o **taira-ni** tatai-ta.

 John-NOM metal-ACC **flat** beat-PAST

Furthermore, "intransitive" A-ResPs are also impossible in Japanese.

- (35) Washio 1997:20
 - a. *karera-wa kutu-no soko-o **borboro-ni** hasit-ta. they-TOP shoe-GEN sole-ACC **threadbare** run-PAST Intended: 'They ran the soles of their shoes threadbare.'
 - b. *boku-wa zibun-o **kutakuta-ni** odot-ta.

 I-top self-acc **tired** dance-past
 Intended: 'I danced myself tired.'

Returning to the question of the strength of adjectival resultatives in Old and Middle French, we argue that, in this part of the grammar, Old French is, in fact, more similar to Japanese than to English: in our corpora, all the examples of A-ResPs that we have found are built from VPs that have a telic interpretation. As an illustration, consider the atelic/telic verbal pair *batre/abatre* 'beat/beat down'. While VPs with *batre* are generally atelic, as in (36), VPs with *abatre* have only a telic interpretation, as in (37).

- (36) Tant feru et **batu** l'avoient que ja li avoient del dos la so much hit and beat him-had that immediately him-had from the back the flesh char ronpue jusqu' as os; ripped until at the bone 'They had hit and beat him so much that they soon tore the flesh of his back to the bone;'

 (C. de Troyes, *Erec et Enide*, 133; TFA)
- (37) Il l' ont feru par tel vertu que du cheval l' ont **abatu**, they him have hit by such force that from that horse him have beat down 'They hit him with such force that they beat him down from the horse,' (Anon., *Roman de Thèbes*, 51; TFA)

When we compare the number of occurrences of A-ResPs with *abatre* versus those with *batre*, we can see a sharp contrast; while we find a significant number of A-ResPs formed from the telic VP, as in (45), there are no A-ResPs formed with the atelic VP. These results are displayed in Table 2.

In order to expand on this observation, we conducted a corpus study of the distribution A-ResPs with telic and/or atelic verbal bases. In particular, we carefully selected two series of verbs that, in general, had very similar meanings, yet differed with respect to the availability of telic interpretations. More specifically, we compared the possibility of forming an A-ResP with

Table 2 Occurrences of *(a)batre* in the TFA corpus

	Occurrences	A-ResPs
Abatre	532	45
Batre	320	0

Table 3 Distribution of adjectival resultatives

TELICITY	Verb	Occurrences	RESULTATIVES
TELIC	abatre	532	45
	geter	887	29
	ruer	87	5
ATELIC	batre	320	0
	bouter	353	0
	heurter	181	0
	trainer	66	0

the atelic (activity or semelfactive⁸) verbs in (38) and the telic (accomplishment or achievement) verbs in (39).

(38) ATELIC VERBS:
batre 'to beat'
bouter 'to beat'
heurter 'to bang/knock'
trainer 'to drag'

(39) Telic verbs:
 abatre 'to beat down'
 geter 'to throw'
 ruer 'to throw'

As shown in Table 3, while we find A-ResPs formed from verbs that give rise to telic VPs, there are no occurrences of A-ResPs with VPs that are (always or mostly) interpreted as atelic. Furthermore, we have not found any examples of intransitive ResPs (unselected objects or "fake reflexives") in our corpora. We therefore conclude that Old French allows only weak A-ResPs.

4 Resultative Predication in Latin

Although Latin has no more native speakers, the question of adjectival and prepositional resultative predication in this language was recently investigated in a quantitative manner by Acedo-Matellán 2010. Acedo-Matellán presents a large corpus study of Classical Latin A-ResPs, and so we present his results here. Basing his study on previous work by Boas 2003 on resultative predication in English, Acedo-Matellán takes Latin translations of 23 of the adjectives that Boas 2003 found frequently occur in A-ResP constructions and checks to see if they appear in resultative secondary predication constructions with 70 manner verbs. In this study, he did not

⁸Note that since some of these verbs are semel factives, in principle, they could have a punctual telic interpretation. However, in our corpus, they are predominantly used as repetitive at elic verbs.

find a single example of a (strong or weak) A-ResP. Acedo-Matellán therefore concludes that Latin behaves like Modern French in that structures such as (40) appear to be ruled out in Latin.⁹

(40) *Ovidia poculum vacuum bibit.
Ovidia.NOM goblet.ACC empty.ACC drink
Intended: 'Ovidia drank the goblet empty.'

(Made-up ungrammatical example from Acedo-Matellán 2010:180)

We now consider the status of prepositional resultatives in Latin. Again, we take the data associated with this language from the work of Acedo-Matellán (i.e. Acedo-Matellán 2006 and Acedo-Matellán 2010). He observes that, in his corpus, goal-of-motion constructions with bare (i.e. unprefixed) manner of motion verbs are rare. In fact, he shows that such constructions are generally limited to the verbs *curro* 'run' and *salio* 'jump' as in (41). For example, in the Classical Latin corpus, he found 8 telic VPs formed with bare manner-of-motion verbs, ¹⁰ 4 of which are with *run* or *jump*. Recall that these verbs continue to license P-ResPs in Modern French, despite the lack of productive resultative predication in the language.

(41) BARE GOAL-OF-MOTION IN LATIN

- a. Non statim ad C. Aquilium [...] **cucurrisses**? not at once at C. Aquilius.ACC run.PRF 'Wouldn't you have run up to C. Aquilius at once?' Cic. Quinct. 53; cited in Acedo-Matellán 2010:188
- b. E terra=que ex-orta repente arbusta salirent.
 out earth.ABL=and out-rise suddenly bush.NOM.PL leap
 'And branching trees would suddenly leap out of the turf.'
 Lucr. 1, 184; cited in Acedo-Matellán 2010:188

However, there is another set of sentences that show the defining characteristics of P-ResPs in Latin: those containing prefixed manner-of-motion verbs. Examples of telic directional interpretations with manner-of-motion verbs and the prefixes *ex*- 'out', *abs*- 'away', *de*- 'down', *prae*- 'before', and *in*- 'in' are shown in (42).

(42) LATIN GOAL-OF-MOTION CONSTRUCTION

- 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 through coughing' Pliny. *Nat.* 10, 197. cited from 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; cited from Acedo-Matellán 2010:97

⁹Of course, with this kind of methodology, it is always possible that a couple of stray examples of A-ResPs were missed. However, as shown in section 3, our very similar study of A-ResPs in Old French has revealed that these constructions are far from rare in the language, and thus we consider Acedo-Matellán's 2010 negative result to be significant in light of our positive result for 12D15th century French.

 $^{^{10}}$ The telicity of the VP was established via the presence of appropriate time adverbials (like subito 'suddenly'), complementizers, or PPs (like $intra\ tres\ dies$ 'in three days'). See Acedo-Matellán 2010:187) for discussion.

- Repente ex equis de-siliunt suddenly out horses down-jumped 'Suddenly they lept down from their horses'
 Liv. 22, 48, 2; cited from 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; cited from Acedo-Matellán 2010:189
- e. XXX dierum spatio **prae**-navigaverint. thirty days span.ABL **before**-sail 'It took thirty days to sail past their territory.' Plin. Nat. 6, 97; cited in Acedo-Matellán 2010:189
- f. Draconem repente **ir**-repsisse ad eam snake.Acc suddenly **in**-glide at her.Acc 'That, suddenly, a snake glided in towards her' Suet. Diuus Augustus 94, 4; cited in Acedo-Matellán 2010:189

In other words, Latin locative¹¹ prefixes can combine with an atelic manner of motion verb to form a VP that has a telic directional interpretation. Thus, we conclude (with many authors, including Acedo-Matellán 2010) that Latin allows P-ResPs, provided that the locative element is expressed as a prefix on the verb.

5 Conclusion

In this paper, we traced the evolution of resultative secondary predication constructions from Latin to Modern French, and, in doing so, we presented new data on ResPs in Old and Middle French. We summarize the proposed shape of the evolution of ResP constructions from Latin to Modern French in Table 4, where the * indicates the prefixation requirement.

Based on the results of our diachronic study, we conclude that, contrary to the commonly held position in the literature, the evolution of the Modern French system should *not* be thought of as a slow drift from the Latin system to the Modern French system. Rather, the Old and Middle French system shows the development of a completely new ResP system which is then

¹¹Note that although when they appear prefixed onto manner of motion verbs, they create directional interpretations, there are good reasons to believe that the prepositional elements that appear in (42) are inherently locative elements. For example, as shown by Acedo-Matellán 2010, they can combine with stative verbs (i), in which case they show a locative interpretation.

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

Furthermore, although the Latin goal of motion construction involves a prepositional element appearing as a prefix, these morphemes are also homophonous with more clearly locative prepositions in the language.

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

Table 4The rise and fall of (productive) ResPs in the history of French

Resultatives	Latin	Old French	Modern French
Adjectival			
Strong	×	×	×
Weak	×	✓	×
PREPOSITIONAL	√ *	✓	×

lost at the end of the Middle French period. Furthermore, as discussed in Burnett and Troberg 2013, unprefixed P-ResPs and weak A-ResPs appear and disappear at (roughly) the same time in the language, which suggests a correlation between the existence of P-ResPs and A-ResPs in French; they share a common grammatical property. On the other hand, there is clearly a lack of correlation in the case of Latin. These facts, along with the variation we see in the set of verbs that can occur in goal-of-motion constructions supports the non-unified approach to the relationship between P-ResPs and A-ResPs. Our study also reveals that Old French adjectival secondary predication is not aspect-changing, unlike prepositional resultative secondary predication. Based on this result, we suggest that a more subtle grammatical property shared by A-ResPs and P-ResPs could be result-state modification, not culmination creation.

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