

- (a) 'it has been opened'
- (b) 'it is open'

In this paper I will argue that this development was caused by a semantic change affecting the verb form *fui*, causing verbal participle structures to be abandoned in favor of Small Clause structures.

2. Theoretical background

2.1. Semantic background

Following Hornstein (1990) I assume a revised Reichenbachian framework, postulating three temporal entities : Speech Time (S), i.e. the time at which the utterance is made, Event Time (E), i.e. the time at which the event denoted by the verb takes place and Reference Time (R), used to mediate in the relationship between S and E. The relationship between S and R determines whether an event is located in the past, present or future with respect to speech time. If R precedes S (R_S), the event is interpreted as past ; if R and S coincide (R,S), the event is interpreted as taking place in the present and if S precedes R (S_R), the event is located in the future. The relationship between R and E determines whether the event has a perfective, neutral or prospective interpretation. If E precedes R (E_R), the verb has a perfective reading ; if E and R coincide (R,E), the event is interpreted as neutral and if R precedes E (R_E), the reading is prospective. Thus, for example, the simple present is represented by (S,R,E), the simple past by (E,R_S), the present perfect by (E_S,R) and the past perfect by (E_R_S).

2.2. Syntactic background

As a basis I use the Minimalist framework as proposed in Chomsky (1995). I follow Giorgi & Pianesi (1997) who assume the existence of two temporal projections, T1P and T2P. T1 realises the relationship between S and R, while T2 realises the relationship between R and E. Note that these tense projections are only realised in the structure when the temporal entities do not coincide. This means that the past perfect, for instance, has both a T1 and a T2 projection, whereas the present perfect only has a T2 projection and the simple present has neither. In this paper, I would like to focus attention on the behaviour of T2. I will therefore concentrate on examples in which R and S overlap and, consequently, T1 is absent.

3. Data and phrase structures

3.1. Overview of the data

The diagram below gives a schematic overview of the data to be discussed in this paper.

	Classical Latin	Late Latin 1	Late Latin 2	Old Occitan
uncompleted event concurrent with S 'it is opened'	apertur	apertur	apertur est apertum	es ubertz
endstate concurrent with S 'it is open'	est apertum	est apertum	est apertum	es ubertz
completed event anterior to S 'it has been opened'	est apertum	est apertum fuit apertum	est apertum fuit apertum	fo ubertz
endstate anterior to S 'it has been open'	fuit apertum	(fuit apertum)	fuit apertum	fo ubertz

3.2. Classical Latin⁴

In Classical Latin, the passive simple present was represented by a synthetic form, consisting of the present stem and a passive ending (3). This verb form denoted an uncompleted event, concurrent with the time of speech, as exemplified in (4).

(3) aper-t-ur
 open-3sing.ind.pres.pass.
 'it is opened' uncompleted event, concurrent with S

(4) *Tenem, qui urbem illam **dicitur** condidisse,...* (Cic. Verr. 2,1,49,1)
Tenem, qui urbem illam
 Tenem, who-nom.sing.masc. city-acc.sing.fem. that-acc.sing.fem.
dicitur condidisse

⁴With 'Classical Latin', I refer to Latin as it was written in the first century B.C.

say-3sing.ind.pres.pass. found-inf.perf.act.
 ‘Tenem, who **is said** to have founded that city, ...’

As mentioned earlier, the passive present perfect was formed analytically, combining a passive perfect participle with a present tense form of BE (5). This verb form had two possible interpretations : it could denote (a) an endstate concurrent with speech time as the result of the completion of the event in the past (exemplified in (6a)) or (b) a completed event, located in the past with respect to speech time (exemplified in (6b)).

(5) *est* *aper-t-um*
 be-3sing.ind.pres.act. open-p.p.p.-nom.sing.neutr.
 ‘it is open’ *endstate, concurrent with S*
 ‘it has been opened’ *completed event, anterior to S*

(6) (a) *Cum ea quae involuta ante fuerunt **aperta sunt**, tum inventa dicuntur.*
 (Cic. *Luc.* 26,9)

<i>cum</i>	<i>ea</i>		<i>quae</i>	
when	that-nom.plur.neutr.		which-nom.plur.neutr.	
<i>involuta</i>			<i>ante fuerunt</i>	
conceal-p.p.p.-nom.plur.neutr.			earlier be-3plur.ind.perf.act.	
<i>aperta</i>			<i>sunt,</i>	<i>tum</i>
uncover-p.p.p.-nom.plur.neutr.			be-3plur.ind.pres.act.	then
<i>inventa</i>			<i>dicuntur</i>	
find-p.p.p.-nom.plur.neutr.			say-3plur.ind.pres.pass.	

‘When those things that were previously concealed **are out in the open**, then the things that were found are said.’

(b) *Videamus quae post mortem Sexti Rosci ab te **facta sunt**.*
 (Cic. *Rosc.* 95,2)

<i>videamus</i>	<i>quae</i>		<i>post mortem</i>
see-1plur.ind.pres.act.	which-nom.plur.neutr.	after	death-acc.sing.fem.
<i>Sexti</i>	<i>Rosci</i>		<i>ab</i>
Sextus-gen.sing.masc.	Roscius-gen.sing.masc.		by
<i>te</i>	<i>facta</i>		<i>sunt</i>
you-abl.sing.masc.	do-p.p.p.-nom.plur.n		be-3plur.ind.pres.act.

‘Let us see wich things **have been done** by you after the death of sextus Roscius’.

Kayne (1993) proposes that the past participle of Italian unaccusatives should be regarded as an adjective, selected by the copula BE.⁵ This assumption leads us to assume a Small Clause structure as in (11), implemented in (12). In this structure, the participle is located in a Small Clause, selected by a copula. This copula may project both a T1 and a T2 projection.

- (11) (a) [_{Agr1P} subj V° [_{VP} t_{subj} t_{V°} [_{SC} t_{subj} participle t_{subj}]]]
 (b) [_{Agr1P} subj V° [_{Agr2P} t_{subj} t_{V°} [_{T2P} t_{subj} t_{V°} [_{VP} t_{subj} t_{V°} [_{SC} t_{subj} participle t_{subj}]]]]]]
- (12) (a) [_{Agr1P} **pro est** [_{VP} t_{pro} t_{BE} [_{SC} t_{pro} **apertum** t_{pro}]]]
 (b) [_{Agr1P} **pro fuit** [_{Agr2P} t_{pro} t_{fu-} [_{T2P} t_{pro} t_{fu-} [_{VP} t_{pro} t_{BE} [_{SC} t_{pro} **apertum** t_{pro}]]]]]]

Unlike the verbal structure, this structure accommodates forms like *fuit apertum* as well as *est apertum*. However, just like the verbal structure, it cannot account for the difference in distribution between *fuit apertum* and *est apertum*. I propose that the verbal structure as given in (9) and the Small Clause structure as given in (11) are complementary and are both needed to account for the Latin data. Let us assume that the semantics are connected to the syntax. I propose that Small Clause structures will yield adjective-like, i.e. endstate readings whereas verbal structures will yield verbal, i.e. eventive readings. This assumption leads to two predictions: (I) *Est apertum* should be ambiguous. As it fits structure (9) as well as (11a), it should be able to denote a completed event anterior to S or an endstate concurrent with S. (II) *Fuit apertum* should only be able to refer to an endstate anterior to S, as it is only accommodated by structure (11b). This is precisely the situation in Classical Latin.

3.4. Data: Late Latin

A source that provides interesting data concerning the passive paradigm in Late Latin is the so-called *Peregrinatio Aetheriae*. This text, which is traditionally dated around 484 A.D. and ascribed to a nun from the Occitan area, can be divided into two separate parts that differ substantially when it comes to syntax and vocabulary. I believe that the two parts were written by different authors and represent different stages in the development of the Occitan passive voice.

3.4.1. *Peregrinatio Aetheriae I*

The first part of the *Peregrinatio* (chapters 1-23) displays almost the same use of tenses as Classical Latin did. In (13), an uncompleted event concurrent with speech time is represented by a synthetic present passive (cf. *apertur* in (3)).

- (13) *Nam multi fratres ... tendunt se, ut laventur in eo loco.* (PA 15,3,4)
nam multi fratres

⁵For Italian, this derivation is rejected by Cocchi (1994). I am convinced, however, that we need this construction to account for the Latin data.

because many-nom.plur.masc. brother-nom.plur.masc.
tendunt *se* *ut*
 commit-3plur.ind.pres.act. oneself-acc.plur.masc. so that
laventur *in eo* *loco*
 wash-3plur.sub.pres.pass. in that-abl.sing.masc. place-abl.sing.masc.
 ‘Many brothers commit themselves so that they may be washed in that place.’
 → ‘Many brothers strive **to be cleansed** in that place.’

Just like in Classical Latin, the passive present perfect, consisting of a p.p.p. and a present tense form of BE (cf. *est apertum* in (5)), can denote either an endstate concurrent with speech time or a completed event located in the past with respect to speech. This is shown in examples (14a) and (14b) respectively.

(14) (a) *Hic autem locus iunctus est eo loco.* (PA 1,1,6)

Hic *autem* *locus*
 this-nom.sing.masc. however place-nom.sing.masc.
iunctus *est*
 connect-p.p.p.-nom.sing.masc. be-3sing.ind.pres.act.
eo *loco*
 that-abl.sing.masc. place-abl.sing.masc.
 ‘However, this place **is connected** to that place.’

(b) *Ostenderunt nobis locum, ubi incensus est vitulus iubente Moyse.* (PA 5,6,1)

Ostenderunt *nobis* *locum*
 show-3plur.ind.perf.act. us-dat.plur.masc. place-acc.sing.masc.
ubi *incensus* *est*
 where burn-p.p.p.-nom.sing.masc. be-3sing.ind.pres.act.
vitulus *iubente* *Moyse*
 calf-nom.sing.masc. order-p.p.a.-abl.sing.masc. Moses-abl.sing.masc.
 ‘They showed us the place where a calf **was burned** at Moses’ order.’

However, the interpretation of the construction *luit apertum*, combining a p.p.p. with a perfect tense form of BE (cf. (7)), has changed. As example (15) shows, this construction now accommodates an eventive reading, contrary to the situation in Classical Latin. In this reading, it denotes a completed event, located in the past with respect to speech time. It is thus synonymous with the eventive interpretation of *est apertum* as given in (6b) and (14b).

(15) *Singula, quecumque scripta sunt facta fuisse in eo loco.* (PA 5,8,4)

singula *quecumque* *scripta*
 some-nom.plur.neutr. whichever-nom.plur.neutr. write-p.p.p.-nom.plur.neutr.
sunt *facta* *fuisse*
 be-3plur.ind.pres.act. do-p.p.p.-nom.plur.neutr. be-inf.perf.act.

Occitan, I assume this is a continuous situation and the absence in the *Peregrinatio* is merely an accidental gap. I therefore inserted this form in brackets under Late Latin 1 in the diagram.

3.4.3. Other Late Latin authors

I have studied three other authors from the Occitan area: Phoebadius Aginnensis (ante 392 A.D.), Prosper Aquitanus (floruit 420-425 A.D.) and Salvianus Massiliensis (floruit 435-440 A.D.). As mentioned above, their texts display the same passive paradigm as the second part of the *Peregrinatio*. The synthetic passive present is still in use, although it is competed by *est apertum*. *Est apertum* may refer to an uncompleted event concurrent with speech time, an endstate concurrent with speech time or a completed event anterior to speech time. *Fuit apertum* may denote either a completed event anterior to speech time or an endstate anterior to speech time. Examples (18) to (23) illustrate this for Prosper Aquitanus.

- (18) ..., qui ... aut faciant, quae **iubentur**, aut neglegant. (Prosp. Aug. 225,57,4)
- | | | | |
|--------------------------|------------|--------------------------|---------------------|
| <i>qui</i> | <i>aut</i> | <i>faciant</i> | <i>quae</i> |
| who-nom.pl.masc. | either | do-3pl.sub.pres.act. | which-nom.pl.neutr. |
| <i>iubentur</i> | <i>aut</i> | <i>neglegant</i> | |
| order-3pl.ind.pres.pass. | or | refuse-3pl.sub.pres.act. | |
- ‘..., who either do or refuse the things that **are ordered**.’
uncompleted event concurrent with S
- (19) *Ad defensionem enim alicuius definitionis ea promenda sunt, quae... eam regulam, cui sunt aptata, non deserant.* (Prosp. Ruf. 5, 6, 80, 29)
- | | | | |
|-------------------------------------|----------------------|----------------------------|------------|
| <i>ad defensionem</i> | <i>enim</i> | <i>alicuius</i> | |
| to defense-acc.sing.fem. | because | a certain-gen.sing.fem. | |
| <i>definitionis</i> | <i>ea</i> | | |
| definition-gen.sing.fem. | this-nom.pl.neutr. | | |
| <i>promenda</i> | | <i>sunt</i> | |
| bring out-gerundive-nom.plur.neutr. | | be-3pl.ind.pres.act. | |
| <i>quae</i> | <i>eam</i> | <i>regulam</i> | |
| which-nom.pl.neutr. | that-acc.sing.fem. | rule-acc.sing.fem. | |
| <i>cui</i> | <i>sunt</i> | <i>aptata</i> | <i>non</i> |
| which-dat.sing.fem. | be-3pl.ind.pres.act. | apply-p.p.p.-nom.pl.neutr. | not |
- deserant*
abandon-3pl.sub.pres.act.
‘For those things are to be brought out to the defense of a certain definition, which do not abandon the rule to which they **are applied**.’
uncompleted event concurrent with S
- (20) *Multi enim singula haec credentes, ..., variis et sibi contrariis sunt erroribus involuti.* (Prosp. Gratia 5,1,30)

<i>multi</i>	<i>enim</i>	<i>singula</i>	<i>haec</i>
many-nom.pl.masc.	because	some-acc.pl.neutr.	this-acc.pl.neutr.
<i>credentes</i>		<i>variis</i>	<i>et</i>
believe-p.p.a.-nom.pl.masc.		varying-abl.pl.masc.	and
<i>sibi</i>	<i>contrariis</i>	<i>sunt</i>	
oneself-dat.pl.masc.	contradictory-abl.pl.masc.	be-3pl.ind.pres.act.	
<i>erroribus</i>	<i>involuti</i>		
mistake-abl.pl.masc.	wrap up-p.p.p.-nom.pl.masc.		

‘For many people who believe these things, **are wrapped up** in varying and selfcontradictory mistakes.’

endstate concurrent with S

- (21) *Dicat ergo Scriptura quod gestum est:* ... (Prosp. Ruf. 14, 15, 85, 49)

<i>dicat</i>	<i>ergo</i>	<i>Scriptura</i>
say-3sing.sub.pres.act.	so	Scripture-nom.sing.fem.
<i>quod</i>	<i>gestum</i>	<i>est</i>
what-nom.sing.neutr.	do-p.p.p.nom.sing.neutr.	be-3sing.ind.pres.act.

‘So let the Scripture state what **has been done**:...’

completed event anterior to S

- (22) *Neque intellegunt omnem illam praeparationem Cornelii per Dei gratiam fuisse collatam.* (Prosp. Ruf. 6, 7, 81, 27)

<i>neque intellegunt</i>	<i>omnem</i>	<i>illam</i>
and not understand-3pl.ind.perf.act.	all-acc.sing.fem.	this-acc.sing.fem.
<i>praeparationem</i>	<i>Cornelii</i>	
preparation-acc.sing.fem.	Cornelius-gen.sing.masc.	for
<i>Dei</i>	<i>gratiam</i>	<i>fuisse</i>
God-gen.sing.masc.	favour-acc.sing.fem.	be-inf.perf.act.
<i>collatam</i>		
bring together-p.p.p.-acc.sing.fem.		

‘And they didn’t understand that all this preparation of Cornelius **was done** to please God.’

completed event anterior to S

- (23) ... *filiis prophetarum, quorum prophetia multis fuit tegminibus obumbrata...* (Prosp. Exp. 126,61)

<i>filiis</i>	<i>prophetarum</i>	<i>quorum</i>
son-nom.pl.masc.	prophet-gen.pl.masc.	who-gen.pl.masc.
<i>prophetia</i>	<i>multis</i>	<i>fuit</i>
prophecy-nom.sing.fem.	many-abl.pl.neutr.	be-3sing.ind.perf.act.
<i>tegminibus</i>	<i>obumbrata</i>	
covering-abl.plur.neutr.	obscure-p.p.p.nom.sing.fem.	

‘... sons of the prophets, whose prophecy **used to be obscured** by many coverings...’

endstate anterior to S

3.5. Data: Old Occitan

Old Occitan takes the development that has been started by the Late Latin authors even further. The synthetic passive present (apertur in Latin) is abandoned in favour of the analytic form *es ubertz* (24), combining a p.p.p. with a present tense form of BE, similar to the Latin *est apertum* (5). This form now denotes an uncompleted event, concurrent with the time of speech or an endstate concurrent with speech time as the result of the completion of the event in the past.⁶

(24) <i>es</i>	<i>uber-tz</i>	
be-3sing.ind.pres.act.	open-p.p.p.	
(a) ‘it is opened’		<i>uncompleted event concurrent with S</i>
(b) ‘it is open’		<i>endstate concurrent with S</i>

The ‘completed event in the past’-reading of *est apertum*, which was available in Classical Latin (cf. (6b)) and Late Latin (cf. (14b) and (21)), is lost in Old Occitan *es ubertz*. This interpretation is picked up by *fo ubertz* (25), the morphological equivalent of the Latin *fuit apertum* (7), combining a p.p.p. with a perfect tense form of BE. *Fo ubertz* also continues to denote an endstate that existed in the past as the result of the completion of an event in a further past, but no longer exists at speech time.⁷

(25) <i>fo</i>	<i>uber-tz</i>	
be-3sing.ind.perf.act.	open-p.p.p.	
(a) ‘it has been opened’		<i>completed event anterior to S</i>
(b) ‘it has been open’		<i>endstate anterior to S</i>

3.6. Summary

Summarising these data, we can say that we are dealing with a development that takes place in three subsequent phases. In the first stage (Late Latin 1), the construction *fuit apertum*, originally only used to denote an endstate anterior to speech time, starts to allow an eventive reading as well, thereby competing with the construction *est apertum*. In the second stage (Late Latin 2), *est apertum* starts to compete with *apertur*, both denoting - among other things, in the case of *est apertum* - an uncompleted event concurrent with the time of speech. In Old Occitan, the

⁶Anglade (1977), Grandgent (1905), Mann (1886), Paden (1998).

⁷Anglade (1977), Grandgent (1905), Mann (1886), Paden (1998).

battle appears to have been won by the “invading” constructions: *es ubertz* has lost its anterior-eventive reading and *apertur* has been abandoned altogether.

4. Hypothesis: expansion of Small Clause structures

4.1. Problems posed by Late Latin and Old Occitan

The Late Latin and Old Occitan data discussed above pose several problems to my analysis of participle constructions as given in section 3.3. According to this analysis, *fuīt apertum* should not be able to yield eventive readings. But in Late Latin and Old Occitan it does. Second, in the eventive reading, *est apertum* is expected to denote a completed event anterior to the time of speech, not an uncompleted event concurrent with speech time as it does in Late Latin and Old Occitan. Furthermore, the disappearance of the synthetic present passive needs to be accounted for.

4.2. The Perfect Shift-hypothesis rejected

Giorgi & Pianesi (1997) postulate the occurrence of a so-called ‘Perfect Shift’ in the development towards the Romance languages, causing the perfectivity features to shift from T2 to T1. At first sight, this seems to account for the change in use of tense on the auxiliary: if T2 no longer checks perfectivity features on the participle, these features need to be realised by the auxiliary. This implies, however, that the auxiliary may only have present perfect tense and not, for example, past perfect tense, as T1 can only check one set of features at a time. Unless we allow a functional projection to check more than one set of features, which seems undesirable. Example (26) shows that a participle could be combined with an auxiliary with past perfect tense in Late Latin, proving that the Perfect Shift-hypothesis cannot be upheld in this case.

4.3. Expansion of Small Clause structures due to a semantic change

I believe the development discussed in this paper was caused by a semantic change that affected the verb form *fui*⁸ in itself. In Classical Latin, *fui* could only represent the perfect tense of BE. But in the first part of the *Peregrinatio*, it is also used as the perfect tense of a verb of motion, as shown in (27).

⁸This change affected all forms of the present perfect and past perfect of this verb, both in the indicative and the subjunctive (*fui, fuisti, fuit, fuimus, fuistis, fuerunt, fuerim, fueris, fuerit, fuerimus, fueritis, fuerint, fueram, fueras, fuerat, fueramus, fueratis, fuerant, fuissem, fuisses, fuisset, fuissemus, fuissetis, fuissent, fuisset*). For practical reasons, I use the 1st person singular of the present perfect indicative to refer to all these forms.

- (27) *Ibi ergo cum venissem, ..., fui statim ad ecclesiam.* (PA 20,2,1)
ibi ergo cum venissem fui
there so when come-1sing.sub.pluperf.act go-1sing.ind.perf.act
statim ad ecclesiam
immediately to church-acc.sing.fem.
'So after I had arrived there, I immediately **went** to the church.'

Now, if a motion verb enters a Small Clause structure, it can easily yield an eventive reading. This often happens in Dutch, as (29) shows.

- (28) *Het boek is verloren.* (Dutch)
het boek is verloren
the-neutr.sing. book-neutr.sing. be-3sing.ind.pres.act lose-p.p.p.
'The book **has been** lost'

- (29) *Het boek gaat verloren.* (Dutch)
het boek gaat verloren
the-neutr.sing. book-neutr.sing. go-3sing.ind.pres.act. lose-p.p.p.
'The book **goes** lost' → 'The book **is** lost'.

I propose this is what caused the development in the first part of the *Peregrinatio*: when the existential variant of *fui* entered a Small Clause structure, it yielded an endstate reading; when the motion verb *fui* entered a Small Clause structure it yielded an eventive reading. In the second part of the *Peregrinatio*, *fui* can no longer denote movement when it is used independently. A sentence like example (27) does not occur in this part of the text. But *fui* maintained its eventive reading in participle constructions. I assume it was re-analysed as a perfect tense form of BE and the eventive interpretation was transferred to the existential *fui*. As a result, its eventive reading could be extended to Small Clause structures with a present tense form of BE. This is what caused the change in interpretation of *est apertum*. Once the new interpretations of the Small clause structure had been accepted, the verbal structures could be abandoned in order to create a coherent, non-redundant paradigm. This is what happened in Old Occitan.

5. Conclusion

In this paper I have discussed the passive voice of Classical Latin, Late Latin and Old Occitan. I have argued that Classical Latin had a strict passive paradigm, using both verbal participle structures and Small clause structures with a clearly separated domain. I have furthermore argued that the change in the use of tense on the auxiliary in the development towards the Old Occitan paradigm was initialised by a semantic change affecting the verb form *fui*. Interpreted as a verb of motion, it accommodated eventive readings of Small Clause structures with a perfect tense

auxiliary (Late Latin 1). After having been re-analysed as a verb of existence, it caused the eventive reading to expand to Small Clause structures with a non-perfect tense auxiliary (Late Latin 2). Eventually, Principles of Economy caused the old constructions to disappear (Old Occitan).

Appendix – Abbreviations

The following abbreviations have been used in this paper:

abl.	ablative case	pluperf.	pluperfect tense
acc.	accusative case	plur.	plural
act.	active voice	p.p.a.	present active participle (participium presentum activum)
AgrP	agreement projection	p.p.p.	perfect passive participle (participium perfectum passivum)
Aug.	Epistula ad Augtinum	pres.	present tense
aux	auxiliary	Prosp.	Prosper Aquitanus
Cic.	Cicero	R	reference time
E	event time	Rosc.	Pro Sexto Roscio Amerino
Exp.	Expositio psalmorum C-CL	Ruf.	Epistula ad Rufinum de gratia et libero arbitrio
fem.	feminine	S	speech time
gen.	genitive case	SC	Small Clause
Gratia	De gratia Dei et libero arbitrio contra Collatorem	sing.	singular
impf.	imperfect tense	sub.	subjunctive
ind.	indicative	subj.	subject
inf.	infinitive	t	trace
Luc.	Lucullus	TP	tense projection
masc.	masculine	V ^o	verbal head
neutr.	neuter	Verr.	In Verrem
nom.	nominative case	VP	verb projection
PA	Peregrinatio Aetheriae		
pass.	passive voice		
perf.	perfect tense		

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