THE DECLINE OF THE FRENCH *PASSÉ SIMPLE*: A VARIATIONIST ANALYSIS OF THE *PASSÉ SIMPLE* AND *PASSÉ COMPOSÉ* IN SELECTED TEXTS FROM THE SIXTEENTH, SEVENTEENTH, AND EIGHTEENTH CENTURIES

by

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(Under the Direction of Diana L. Ranson)

ABSTRACT

This thesis examines the decline of the *passé simple* and the concurrent rise of the *passé composé* across three periods of Classical French, a change which is typically treated as a case of grammaticalization. This study is based on a quantification of variable contexts through the construction and examination of historic corpora comprised of two different text types: letters and essays. Ultimately, the goal of this study is to provide concrete information on the diachrony of the opposition between the *passé simple* and the *passé composé* through a statistical analysis of the factors that influenced their use during the time periods in question. Factors analyzed in this study are text-type, temporal and adverbial reference, Aktionsart (lexical aspect), semantic class, object plurality, clause type, grammatical person, and negation. Diachronically, the multivariate analyses indicate an increasing restriction on the factors that favored the *passé simple* over the *passé compose*.

INDEX WORDS: Grammaticalization, Perfect, Perfective, Diachrony, Variation, GoldVarb, Corpus, Frequency, Temporal Reference

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CHAPTER 1

INTRODUCTION

1.1 The current study of the replacement of the *passé simple* by the *passé composé*

This thesis examines the loss of the *passé simple* (henceforth PS) in the history of the French language through a comparison of the relative frequency of the *passé simple* over the *passé composé* (henceforth PC), as well as a multivariate analysis of the various factors influencing their use in letters and essays from three different time periods during the latter stages in the disappearance of the PS: 1530-1545, 1630-1645, and 1730-1745. The focus of this thesis is to provide information on the path of the grammaticalization of the PC as it becomes increasingly frequent in functional contexts formerly occupied by the PS, such as contexts that describe punctual, telic events (those which are fully terminated before the moment of speech), as well as events that are temporally specified as prehodiernal (occurring before the day of speech) by the presence of a temporal adverbial. The multivariate analysis of the contexts in which the PC and the PS occurred during the different time periods was undertaken to determine 1) whether over the time periods measured there was an increase in the range of distribution of the PC, that is, the contexts in which it occurred, 2) whether the range of distribution of the PS decreased, and 3) whether these changes took place in comparable ways in both textual categories.

Before presenting the methods and results from the multivariate analysis, Section 1.2 presents a proposed history of the development of the PC vis-à-vis the PS from Spoken Latin to Modern French. This chapter addresses how the PC/PS opposition is characterized as a grammaticalization phenomenon, as well as how previous research has treated the rise of the PC and the decline of the PS. Important focal points of previous research that will be discussed are how the PC should be characterized in Old French, Middle French, and Classical French, when the PC came to be in variation with the PS and to what extent this variation was actually driven by semantic neutralization between the competing forms. Additionally, this section will address the various methods for examining the character of this variation, which are primarily based in qualitative and quantitative analyses of the type of past event described by the verb in question, the relationship between the past event and the moment of speech, and the specification of the temporal context of the past event.

Section 1.3 describes the methodology of the current study. The methodological discussion focusses on the construction of the corpora, specifically addressing the selection of texts, sampling procedures, and the subsequent extraction and analysis of tokens, as well as why certain tokens were excluded from the final analysis. The corpora were constructed using two text types: essays and letters. Since the time periods measured are considered to be located at later stages in the grammaticalization path, it is the hypothesis of this project that the PC will be the default[1] form in the letters category as early as the 16th century, especially since letters are taken to more closely resemble the spoken language than other textual categories with the possible exception of plays

[1] According to Schwenter and Torres (2008:1), the "default" between two or more variants is the expression that "[appears] more frequently. . .and [in] the least specified contexts."

(see Copple 2009). That is to say that the PC will appear at a higher frequency than the PS in this text type. It is also possible that the PS, rather than the PC, will be the default form in the essays category, if ever it still occurs at a higher frequency than the PC. It is also assumed that the PS will be subject to some decline in overall frequency across these three time periods.

The methods used in this study seek to to ensure maximum representativeness in the extraction of historical data from written texts. For the relative frequency analysis, equal amounts of running text were analyzed: 14,000 words of text from four different authors (3,500 words per author) for both text types in each of the three time periods, for a total of 28,000 words from each century.

Chapter 2 presents both relative frequencies of the PC and the PS in different variable contexts, as well as the results of the multivariate analysis. Whereas results from the multivariate analysis are presented from each century for the essays corpus, the letters corpus, and the essays/letters combined corpus, relative frequencies of the variable contexts were calculated only for the combined corpus, with the exception of Aktionsart[2] class. For the relative frequency analysis, equal amounts of running text were analyzed: 14,000 words of text from four different authors (3,500 words per author) for both text types in each time period.

For the multivariate analysis, tokens were exhaustively extracted from the text samples and submitted for analysis to Goldvarb X for Windows (Sankoff, Tagliamonte, and Smith 2005). The discussion of the results of the multivariate analysis will include

[2] The relative frequencies for Aktionsart class are presented for both of the subcorpora as well as the combined corpora because of fluctuations in the diachronic data. It was thus desirable to ascertain whether these fluctuations were due to one of the text types in question. Ideally, in the future, relative frequency analyses would be presented for all of the variable contexts for each of the subcorpora.

century by century comparisons of the factors selected as significant in the subcorpora and in the combined corpus. For both analyses, the coding of tokens was largely based on factors that have been analyzed as potentially significant in conditioning the perfect/perfective opposition in varieties of Spanish, which are currently considered to be at earlier stages on the grammaticalization path than Contemporary French (see Fleischman 1983, Harris 1982, Schwenter and Torres Cacoullos 2008, Copple 2009, and Howe 2009). Following the studies of grammaticalization in Spanish, the French tokens were coded for type of temporal reference, the presence and type of adverbials, verbal Aktionsart and telicity, semantic class, negation, the presence of singular or plural object NPs, and clause type. Since French verbs conjugated in the PC select one of two auxiliaries (*être* 'to be' or *avoir* 'to have'), tokens were also coded for auxiliary selection. Furthermore, grammatical person was considered to be a factor group. The criteria for the selection of each variable context are further described below in tandem with the results for each variable.

The relative frequency analysis of the combined corpus indicates a dramatic decrease in the frequency of PS tokens between 1550 and 1650, before stabilization between 1650 and 1750. Both the initial decrease and the subsequent stabilization appear to be conditioned by the essays data; i.e. when letters are considered separately from essays, the frequency of PS forms is subject to only a slight decrease between the first and second periods before stabilization between the second and third periods.

The results from the multivariate analysis are diverse. The analysis indicates that the distribution of PS/PC forms is similar across textual categories in regards to temporal reference, but that other variables, such as grammatical person or clause type, may have

an apparent impact in one text type and not the other. The multivariate analysis in the current study also indicates that the PS was disfavored in indeterminate contexts across all three time periods studied and remained the most frequent in definite time constructions. Some of the results from the multivariate analysis are surprising, such as the suggestion that auxiliary selection is significant, with verbs taking *être* as an auxiliary favoring the PS. Finally, in terms of diachrony, the multivariate analysis indicates an increasing restriction on the range of contexts in which the PS is favored over the PC. This indicates in which contexts the PS recedes while the PC advances in line with the ultimate goal of this study of providing concrete information on the path of grammaticalization of the PC as it takes over meanings and functions formerly expressed by the PS.

1.2. Background of PS and PC use in French

1.2.1 Tense and aspect in the Romance languages

Diachronically, the Romance languages have been subject to a bevy of developments within their respective aspectual systems. First, a new compound perfect arose in Spoken Latin and began to share aspectual ground with the existing Latin perfectum and imperfect. This compound perfect--formed by combining the auxiliary *habere* with a past participle--began to be employed for many functions that were previously expressed through the simple preterite in various Romance languages (Harris 1982:50). Within the history of French, the newly-formed PC originally took over the perfect meanings of the Latin perfectum and then eventually extended its use to take over the perfective meanings as well. The morphologically-simple perfective PS, which derived morphologically from the Latin perfectum, eventually disappeared from use in the spoken language presumably sometime before the 19th century (Dauzat, cited by

Harris 1982:58). The PS was subsequently relegated to restricted stylistic settings in the written language. Thus, in contemporary spoken French, past events are expressed primarily through the use of three tenses: the PC, the *imparfait*, and the *plus-que-parfait*.

In French, the exact trajectory of the decline of the PS remains murky, although the change is typically treated as a result of grammaticalization, in which a lexical item or construction (in this case the PC) "comes in certain linguistic contexts to serve grammatical functions, and, once grammaticalized, continues to develop new grammatical functions" (Hopper and Traugott 1993:xv). According to Hopper and Traugott (1993:126), across languages, increases in the frequency of new forms in relation to older forms is one of the most important factors in the replacement of one grammatical structure by another. Along the grammaticalization path, a new category of forms arises--in this case the PC—which becomes gradually less concrete, that is, less lexical and more grammatical. At a given moment, the new forms begin to share semantic territory with the older forms. In the majority of cases, if the new paradigm increases in its frequency, one will observe that it encroaches on the semantic territory of the older forms (Howe 2009:151). In the case of the PC and the PS in French, the PC most likely began as a 'perfect of result,' in which it highlighted the current results of past actions, and became a perfective over time, before completely replacing the PS in the spoken language (Fleischman 1983:83).

1.2.2 Perfect and perfective aspect

The distinction between perfect and perfective aspect can be characterized by referring to the type of past event denoted by the verb in question, as well as by the relationship between the inception or completion of the past event and the moment of speech. According to Comrie (1976:5), aspect, as opposed to tense, is non-deictic. Whereas tense locates an event in time, aspect is concerned "with the internal temporal constituency" of a situation. Characteristics of the internal temporal constituency of a situation are "duration, boundedness, completion, repetition, inception, [and] termination" (Fleischman 1983:184). With perfective aspect, the event described by the verb is "entirely past;" i.e. it is regarded by the speaker as completed "rather than as in progress at the time in question, and is not represented as being relevant to the speaker's present" (Fleischman 1983:196). A perfect, on the other hand, is prototypically considered to be employed "to refer to a situation that began or first occurred at an earlier moment and is still going on" or to a past situation that is considered to be relevant to the moment of speech (Fleischman 1983:196). The following example from the 16th century further illustrates a use of the PS for indicating that an action was fully terminated in the past, followed by an example of the PC for indicating that an action began in the past and has continued until the present.

1) Mais la cause qui ***fut*** [PS] pourquoy sen ***alla*** [PS] hors de ce païs? Car y ha environ dix-sept ans que ne l***ay veu*** [PC] [Du Fail]
'But the reason that *was* [PS] why he *went* [PS] outside of this country? Because it has been about seventeen years that I *have* not *seen* [PC] him.'

Thus, one of the primary aspectual differences between a perfect and a perfective is temporal boundedness; a perfective encodes that an event is wholly past, whereas a perfect serves a relational function between the past situation and the moment of speech

(Bybee et al. 1994:54). Thus, cross-linguistically, it is typical for a perfective to be employed for the narration of sequences of discrete events in the past (Schwenter and Torres Cacoullos 2008:4; Comrie 1976:5). Perfects, on the other hand, are not typically found in sequenced narratives (Schwenter and Torres Cacoullos 2008:4). Therefore, one of the defining characteristics of the perfect to perfective path is arguably whether a perfect can be employed for denoting a sequence of temporally bounded past events (Howe 2009:168).

1.2.3 The grammaticalization path: perfects → perfectives

How does a perfect become a perfective? According to Bybee et al. (1994:54), perfects become perfectives through a generalization of meaning. If speakers frequently frame their narration "as though it were highly relevant to current concerns" (Bybee et al. 1994:86-87), this can lead to the "loss of specification of current relevance" which, in turn, can result in semantic bleaching (Schwenter and Torres Cacoullos 2008:2). According to Schwenter and Torres Cacoullos (2008:3), this development is widely believed to be founded in the process of perfects "gradually [moving] back in temporal distance." However, in their study of the Perfect and the Preterit in Mexican and Peninsular Spanish, Schwenter and Torres Cacoullos (2008) argue that the shift in the Peninsular Spanish PP[3] from perfect to perfective occurs primarily in temporally indeterminate contexts, i.e. those which lack a specific temporal reference.

Engel (1990:4) maintains that "the passé simple evolved from the Classical Latin perfect *feci*, which had the values of a preterite and a present perfect". The PC, on the other hand, evolved from the Spoken Latin compound construction which combined the

[3] Following convention, when writing of the general categories "perfect" or "perfective," I use lowercase. When writing of language specific instantiations of these two categories, such as the Present Perfect in Spanish or English, I will use capitals.

auxiliary *habere* with a past participle and had a primarily aspectual value (Harris 1982:46-49). According to Harris (1982:47), the *habeo factum* 'I have done' paradigm originally arose as a resultative construction and gradually developed an aspectual opposition to the *feci* 'I did' paradigm in Spoken Latin. In Table 1, below, the *feci* category represents the oldest aspectual category of morphologically simplex forms that would develop into the PS in French. The *habeo factum* category represents the new aspectual category of forms that are considered to have been grammaticalized, those that would eventually develop into the PC in French.

Table 1: Proposed path of grammaticalization of the *habeo factum* perfect → perfective across the Romance Languages (Table adapted from Fleischman 1983:195).

STAGES	FECI	HABEO FACTUM	LANGUAGE
Stage I.	i. All perfect and perfective functions.	i. Only present states that are results of actions in the past.	Sicilian, Calabrian.
Stage II.	ii. Most past tense functions.	ii. Begins to have "the function of a perfective, but is limited to situations of a particular aspectual profile" (Fleischman 1983:195).	Galician, Portuguese, Most Varieties of Latin American Spanish
Stage III.	iii. Preterite.	iii. Perfect.	Peninsular Spanish
Stage IV.	iv. Restricted to formal registers, eventually eliminated.	iv. All perfect (completed) past functions	French, Northern Italian, Romanian

According to this categorization, the French of the 17th century certainly appears to have been at stage III in the above schema proposed by Harris (1982:46-49), whereas contemporary French is at stage IV. It is not yet clear, however, whether the French of the 15th and 16th centuries is better categorized at stage II of the schema rather than at stage III.

One can compare the development of the aspectual system in French with that of the other Romance languages. All varieties of Spanish, for example, productively retain both the complex and simplex forms. However, how these forms are employed for indicating aspect varies across geographic varieties of the language. In the majority of varieties of Spanish in Latin America, the aspectual systems are considered to be at Stage III of Harris's (1982) schema. Contrarily, it is possible that Standard Mexican Spanish is at Stage II, whereas the situation in certain varieties of Peninsular Spanish could "[approximate] the situation of the French [PC] (Howe 2009:160).

1.2.4. Proposed development from Spoken Latin to Contemporary French.

1.2.4.1 Contemporary French

In Contemporary French, the PC seems to have two broadly delineated domains: 1) it shares perfect territory with the present in prose and 2) it serves as the only past perfective in the spoken language, indicating that an action was completed in the past, whereas the *imparfait* indicates that an action was not completed in the past (Martin 1971:10). The PS is restricted to written language, where it continues to be used in opposition to the PC for disputed degrees of aspectual opposition and/or stylistic effect. Various studies on Modern written French (Engel 1990, Stavinohova 1969) indicate the PC is primarily used to relate "anteriority to the present/future, result, successive actions, [and] accomplishment" whereas the PS is employed for narratives and sequences of discrete events (Engel 1990:7).

1.2.4.2 Old French: 842 AD-1340 AD

The nature of the opposition between the PS and the PC in Old French is far from clear. According to Engel (1990:4), in Old French, use of the *imparfait*, the PC, and the

PS was not systematic. Foulet (1961:218ff.) argues that the PC, the PS, and the *imparfait* were employed "concurrently" for stylistic variation in Old French (see also the discussion of Detges 2006, below). Engel (1990:4) claims the same, adding that the PC "had a preterite sense in verse, and a perfect sense in prose". According to Engel (1990:4), the PS was still capable of receiving durative readings during the Old French period. Furthermore, Engel argues that the PS was the only category used for sequenced narratives, an aspectual territory which continued to be off-limits to the PC for some time.

According to Caudal and Vetters (2007:124), in Old French, the PC, as opposed to the PS, was apparently systematically incompatible with "*des modifieurs de localisation temporelle,*" 'localizing temporal modifiers' that did not include the moment of speech. Caudal and Vetters argue that this incompatability might indicate that the PC was not, in fact, semantically compatible with perfectivity in Old French. However, Caudal and Vetters (2007:124) also maintain that the PC could be used to denote a series of discrete past events as early as the 11th century and that, in such instances, the PC could be analyzed as pragmatically, if not semantically, as "*près d'un aoriste*," 'close to an aorist', i.e. that the PC could be pragmatically employed to express temporal boundedness. This leads Caudal and Vetters (2007:124-25) to conclude that the PC was already beginning to take on the function of encoding perfectivity at the "semantic-pragmatic interface" during this period. Caudal and Vetters argue that literary evidence, such as the following examples from *La Chanson de Roland*, indicates that the PC was indeed already compatible with aoristic contexts. To illustrate this point, in the following extract, the PC alternates with the PS in denoting a series of discrete past events.

2) Sun destre guant a Deu en puroffrit [PS];
Seint Gabriel de sa main l'ad pris [PC].
Desur sun braz teneit le chef enclin;
Junte ses main est alet [PS] a sa fin.
Deus tranmist [PS] sun angle Cherubin,
E seint Michel del Peril;
Ensembl'od els sent Gabriel vint [PS]. . ."
(La Chanson De Roland CLXXVI, v. 2389-2395, cited in Caudal and Vetters2007:125)
'His right glove to God he proffered [PS];
Saint Gabriel had taken [PC] it from his hand.
On his arm he held (was holding) his head inclined;
His hands joined he has gone [PC] to his end.
God transmitted [PS] his angel Cherubin,
And Saint Michael of Peril ;
Together with them Saint Gabriel came [PS]4. . . .

In his reference grammar on Old French, diverging from the findings of Caudal and Vetters, Buridant (2000) describes the PC as already fully functionally equivalent with the PS during the Old French period. If this was in fact the case, then PC would have already been a perfect IV in this period. Detges (2006:48), however, argues that this conflicts with the "widely accepted view than in later epochs of French (which lasted well until the 18th century), the *passé composé*, very much like the present perfect in Modern English or the *perfecto compuesto* in Modern Spanish, was a perfect III". According to Detges (2006:48), in Old French, the PC was employed "exclusively" to

[4] All glosses are my own. Any errors in the translation are thus also my own.

mark past events with current relevance (see also Fleischman 1983). If this was indeed the case, Detges argues, it would follow that the PC would not have been used for narratives during this period. Detges (2006:48) maintains that, in Old French narrative texts, the PC only *appears* to occur in variation with both the PS and with the historical present for "the marking of foregrounded events". According to Detges, arguments for neutralization between the two categories of variation arise from the fact that different translations of the same text often suggest possible functional overlap. Detges (2006:49) cites the following example of different translations from the *Charroi de Nîmes,* an Old French manuscript from the 12th century*:*

3) a. Si vit [PS] ester Guilin et Betran ...
'If (he) saw Guilin and Betran being ...'
b. Si a veuz [PC] Guyelin et Bêtreant ...
'If (he) has seen Guyelin and Bêtreant ...'
c. Et voit [present] ester Guielin et Betrant
'And (he) sees Guielin et Betrant being

Detges (2006:49) argues that such seeming neutralization of the opposition between the PS and the PC in Old French does not indicate that the PC was already a variant of the PS; rather, this neutralization is nothing but an "optical illusion". According to Detges (2006:49), such variation is the result of the present's being employed as a "stylistically marked. . .variant of the *passé simple*" in literature. If the PC did not encode temporal information but was exclusively aspectual during this period, then it would be default-marked as present tense, making it actually a stylistic variant of the historical present, encoding for resultative aspect, which was in turn a stylistic variant of the PS. Thus, Detges argues that the meaningful opposition between the PC and the PS was not in fact neutralized during this period; rather, in the strictest literary-stylistic contexts, both the PC and the historical present could vary with the PS in the narrative

expression of past events. Such stylistic alternations explain why the PC and the PS, as well as the present, appeared to be used interchangeably in different translations of the same text, as in (3) above).

Detges (2006:49-51) goes on to argue that the primary function of the PC in Old French was purely aspectual and not temporal, making it a stage I perfect, or, in Detges's terms a "Resultative B". For Detges (2006:51), Resultative B constructions are those in which the agent of the past event receives the focus, rather than the current result of the past event:

4) Resultative B
   Li quens Rollant, il l'ad e prise [PC] e fraite [PC]
   'Count Roland, he has conquered [PC] and destroyed [PC] it.
   (Chanson de Roland 663, cited in Detges 2006:50).

These types of resultative constructions contrast with those which Detges (2006:50) terms "Resultative A" constructions in which the "current results of past events" are highlighted.

5) Resultative A
   Escababi i ad le chef trenchet [PC]
   'Escababi has his head cut off [PC] there'
   (Chanson de Roland 1555, cited by Detges 2006:50).

Detges (2006:50-51) argues that Resultative A constructions are "extremely rare" in both Old French and Old Spanish texts and that Resultative B constructions are much more frequent. Furthermore, Detges (2006:50-51) maintains that Resultative B constructions are in fact the "starting points of the evolution of perfects;" i.e. they are stage I perfects within Harris's (1982) schema. It is possible then that the PC was still retained functionally as a stage I perfect as late as Old French, in other words, that it was largely used for present states that were results of past actions. In order to explore these claims

in later stages of French in the current study, the PC/PS opposition was examined in terms of Aktionsart, or lexical aspect, which is concerned with the "inherent relationship" of a given verb with time (Vendler 1957:97). Aktionsart was thus analyzed as a factor in the multivariate analysis to follow in Chapter 2. Further characteristics of the various Aktionsart classes will also be discussed in Chapter 2.

1.2.4.3 Middle French (1340-1611) and Classical French (1612-1800)[5]

How to characterize the PS/PC opposition in the period following Old French is not entirely clear. According to Martin (1971:383ff.), in Middle French, the PC continued to be a pure resultative, which would follow Detges' (2006) observations on Old French. The PS, on the other hand, was a "past punctual" for all events, even those with current relevance. According to Caudal and Vetters (2007:125), in the period of transition from Old French to Classical French, the PC retained its distribution while the PS gradually lost its potential preterite readings as an imperfective and a resultative. Caudal and Vetters (2007:125) argue that the diachronic evolution of the PS/PC opposition then reached a stage of stability from the post-Classical period that corresponds with contemporary readings of the two forms.

Some observations regarding the nature of the PS/PC opposition in Classical French can be made from attempted codifications of the aspectual system by prescriptivists (Engel 1990:4). This codification applied to not only to the theater with the establishment of the unité de temps (which stated that the action of a play should take place during no more than 24 hours) but also to the use of the PC in the language as a

[5] I am unsure of when to date the closing of the Classical French period and the beginning of Modern French. Some sources refer to Middle French as immediately preceding Modern French, whereas others make frequent reference to Classical French as an intervening period. For the purposes of this study, I have identified Classical French as beginning at the end of Middle French (1612) and as ending in 1800.

whole. In the 17th century, it was declared that the proper use of the PC was exclusively for denoting an event that occurred during the same day as the moment of speech (the '24 hour rule') (Engel 1990:5). The exception to this "rule" was the usage of the PC for denoting events in the distant past if and only if these events seemed "close" to the speaker, i.e. they were currently relevant pragmatically (Engel 1990:5). Engel (1990:6) maintains that "the question of how rigid this distinction [between the passé composé and the passé simple] was is disputed, but it is clear that the situation in C.F. [Classical French] was far less confusing and haphazard than in O.F. [Old French]".

Caudal and Vetters (2007:132) maintain that, in Classical French, the PC remained in a transitional period between being a semantic resultative given to pragmatically perfective readings and as a "mixed" resultative and perfective. However, during this period, the PC does not appear to have gained "*terrain perfectif*" 'perfective ground'. In fact, the PC appears to have been completely marginal, and perhaps even inexistent, in certain constructions, such as in combination with past adverbial complements. According to Caudal and Vetters (2007:132), in Molière, Montesquieu, and La Bruyère, *hier* 'yesterday' + PC is completely absent as a construction, which contrasts with the abundance of *hier* + PS constructions.

Dahl (1984:105) suggests that it was in fact the case that the PC was characteristically restricted to hodiernal contexts in the 17th century. However, according to Caudal and Vetters (2007:131), the evolution of the PC towards an aorist appeared earlier, in the 16th century. Caudal and Vetters (2007:131) support this argument by citing cases in which the PC can be used without a temporal complement to refer to the distant past, as seen in (5), below.

6) ... encore qu'il en eust acquize autant que Cezar memes en a acquis [PC]
(Monluc cited by Caudal and Vetters 2007:131)
... even though he had acquired as much of it as Cesar himself has acquired [PC]'

In the same vein as Caudal and Vetters (2007:130-134), other scholars have also focused on characterizing the evolution of the opposition between the PS and PC according to the co-occurrence of each with specific temporal adverbial phrases. Following results from his corpus of Middle French, Wilmet (1970:283) found that "le passé composé semble mieux toleré lorsque sa détermination temporelle ne précise pas l'intervalle séparant l'événement de l'actualité*,"* 'the *passé composé* seems better tolerated when its temporal determination does not specify the interval separating the event from the present moment'. Wilmet (1970:278) recorded the rate of occurrence of both the PS and PC with temporal adverbial phrases in plays from the 15th and 16th centuries, with the results shown in Table 2, below. In total, Wilmet recorded the co-occurrence of the PS and the PC in the context of ten different adverbs and adverbial phrases: *trestout venant*[6], *tout maintenant* 'right now', *tantost* 'immediately', *orains* 'just now', *ce matin* 'this morning', *ennuyt* 'this evening', *aujourd'huy* 'today', *huy* 'today', *hier* 'yesterday', and *avant-hier'*before yesterday'. In Table 2, these have been collapsed into two categories: hodiernal/proximate[7] (*trestout venant*, *venant*, *tout maintenant*, *tantost*, *orains*, *ce matin, ennuyt*, *aujourd'huy*, and *huy)* and prehodiernal (*hier* and *avant-hier*). Wilmet observed that both *hier* and *avant-hier* co-occurred with only the PS during these periods. One sees that the PC was never used in prehodiernal contexts.

Table 2: The PS, PC, and temporal reference from the 15th and 16th centuries (adapted from Wilmet 1970:278)

[6] This translation is not certain.
[7] A proximate adverbial is one that indicates close proximatey to the moment of speech, such as 'right now' or 'currently.'

Temporal Reference	PS	PC
hodiernal/proximate	13	27
prehodiernal	31	0
Total	44	27

In the 17th century, according to Caudal and Vetters (2007:127), the PC was used over the PS when a temporal complement referred to an interval that included the moment of speech. If there was no such temporal complement, the choice between the PC and the PS appeared to be free. Furthermore, in the 17th century, there are still observable occurrences of the PS with the adverbial *depuis* 'since,' which, due to the connection it creates between a past moment and the moment of speech, is typically considered to have favored almost exclusively the PC during this period. According to Caudal and Vetters (2007:130), in such occurrences, the interval described by *depuis* encodes a resulting state, as in (6) below.

> 7) Car DEPUIS que le temples de Salomon **fut** [PS] bâti, il n'était plus permis de sacrifier ailleurs, et tous ces autres autels qu'on élevait a dieu sur des montagnes, appelés par cette raison dans l'Ecriture les hauts lieux, ne lui étaient point agréables"
> (Racine, Athalie, Acte II, Scène 7, cited by Caudal and Vetters 2007:130)
> 'For since Salomon's temple *was* [PS] built, it was no longer permitted to sacrifice elsewhere, and all those other altars that one raised to god on the mountains, called for this reason in the Scriptures the high places, were not (at all) agreable to him.'

Caudal and Vetters (2007:130) maintain that *depuis* could be used with both the PC and the PS within the same texts during this time period and that the PS still allowed resultative readings during this time period. Such readings would be "vestiges" of a much earlier stage of the PS.

Fournier (1998:399) localizes the disappearance of the PS from spoken French as occurring in the latter half of the 17th century. However, observations from grammarians

of this time period indicate that the PS was still in use at least until the early 18th century. In his *Essai d'une parfaite Grammaire de la langue francoise*, Chiflet (1659) described the PC as having a substantial degree of functional overlap with the PS, writing "[le] prétérit indéfini [PC] se peut dire de toute sorte de temps simple passé. Hier j'ay bien soupé [PC]: & aujourdhuy j'ay mal disné [PC]," 'the indefinite preterite [PC] can express all types of simple past events. Yesterday I have eaten well: & today I have dined poorly.'

In *Grammaire francoise sur un plan nouveau*, Buffier (1709:169) observed that, although speakers were more likely to employ the PS with bounded events that were anchored by temporal adverbs, it was also possible to use the PC under such circumstances: "avec un mot qui marque un temps entièrement écoulé, on mettra plutôt le prétérit simple, je fis [PS] cela hier, je voyagai [PS] l'année passée : bien qu'on pût dire, j'ay fait [PC] cela hier, j'ay voyagé [PC] l'année passée," 'With a word that marks an entirely terminated event, one will use rather the simple preterite, I did that yesterday [PS], I traveled [PS] last year : even though one could have said, 'I have done [PC] that yesterday, I have traveled [PC] last year.' Such descriptions of the language suggest that both forms were in use in the 18th century and that there was a considerable degree of functional overlap between them, although certain contexts (such as definite time reference) perhaps favored the use of one form over the other.

According to Caudal and Vetters (2007:134), it was only in the 18th century that the PC began to acquire full systematic compatibility with past temporal modifiers. Similarly, in his corpus of epistolary literature, Liu (1999, cited by Caudal and Vetters 2007:133-34) found that the combination of PC + *hier* 'yesterday' was marginal in the

17th century (1.6 %), then gained the majority in the 18th century (51.7%) and had almost eliminated the PS + past temporal modifier constructions in the 19th century (97.8 %). The data for PC + "days of week" evolve in the same vein: 18.3% in the 17th century, 59.7% in the 18th century, and 93.1% in the 19th century. Based on these observations, Caudal and Vetters (2007:134) argue that the transition of the PC from a value of resultative to one of "mixed resultative and perfective" was spread over a much longer period than is generally acknowledged in the literature. According to Caudal and Vetters (2007:134), this transition can be delineated in the following stages:

Stage I: A pragmatic stage, attained after the Old French period, in which the passé composé acquired the possibility of perfective interpretations in "successions temporelles," 'temporal sequences' as seen in (7), below.

8) Vers le palés ***est alés*** [PC];
Il en ***monta*** [PS] les dégrés.
En une canbre ***est entrés***,
Si ***comença*** a plorer. . . .
(Auccassin, VII, 6-10, cited by Buridant 2000:381)
'Towards the palace (he) *has gone* [PC];
He *climbed* [PS] the steps.
In a room (he) *has entered* [PC].
So (he) *began* [PS] to cry. . . .'

Stage II: A semantic stage, fully terminated in the Post-Classical period, in which the PC became compatible with "complements de temps passes," 'past temporal complements', as seen in (8).

9) *Hier* au soir, avec le secrétaire, tu ne t'***es*** pas ***ménagé*** [PC] davantage; quand tu ***remonta*** [PS] tu chancelais, tu ne savais pas ce que tu disais; (Diderot, *Jacques le Fataliste*, cited by Caudal and Vetters 2007:134).
'Last night, with the secretary, you *did* not *take* [PC] it easy enough; when you got up [PS] you wobbled, you did not know what you were saying.'

Thus it would appear that the PC and the PS were in variation in Classical French but that the character of this variation is not entirely clear. The current study is thus concerned with quantifying the contexts in which the PC and the PS occurred and identifying which factors favored the use of one over the other. Given the fact that previous studies of French have often concentrated on temporal reference and adverbial specification as conditioning the choice between the PS and the PC, these contexts are analyzed as a factor in the multivariate analysis that will follow.

1.3. Methods

1.3.1. Historic data: problems and procedures

Labov (1994:11) describes historical linguistics as "the art of making the best use of bad data". The reasons why historical data might be considered flawed are numerous, but, as Labov observes, the availability of data is somewhat random and in written documents the distribution of forms is "often distinct from the vernacular of the writers, and instead reflect efforts to capture a normative dialect that never was any speaker's native language" (Labov 1994:11). Thus, it is particularly necessary to acknowledge the existence of such normative effects in the current study, since the PS continues to be used in written Contemporary French and since the opposition between the PS and the PC was subject to many attempted codifications by grammarians. Furthermore, written texts contain only positive evidence so that the absence of the PC with the definite time adverbial *hier* before the 18th century, for example, does not necessarily mean that the PC was in fact incompatible with such contexts. The absence of evidence can be suggestive of possible restrictions on the distributions of forms, but it cannot indicate these restrictions conclusively.

Thus, the difficulties in tracking historical semantic change are manifold. First, the nature of the change itself is as difficult to define as the character of the variation that inspires it. Additionally, frequent deficits in historical data can render comprehensive quantifications of contexts problematic, and thus diachronic corpus linguistics must often make do with small sampling frames. The lack of data also leads to the creation of linguistic abstractions. In historical studies, such as the current one, we often unavoidably obscure the fact that there was never one French Language, but rather a complex and dynamic network of varieties of French. Similarly, the lack of both data and metadata renders it difficult to control strictly for all sociolinguistic variables, such as age, gender, ethnicity, region, and socioeconomic status. Furthermore, in written data each individual author's stylistic choices are likely to affect the nature of the results. The limitations of historical data do not, however, render a corpus-based study of grammatical change fruitless; rather, we must approach all historic data with caution, as providing us with a method to identify patterns and to analyze whether or not these patterns fluctuate or stabilize in systematic ways.

In order to tackle some of the problems inherent in a text-based diachronic study, the current project first endeavors to analyze the distribution of forms across two different textual categories: letters and essays. For each of the three time periods under consideration, 3,500 words of running text were selected from four different authors, for a total of 14,000 words per text type per period. Thus, when letters and essays are considered together, each time period is represented by 28,000 words in the corpus.

1.3.2. The Corpus

The majority of texts used for this study were extracted from the University of Chicago's ARTFL-Frantext database. The only texts that were not available on the ARTFL database were 16th century letters. These texts were thus found by extracting letters from archive.org. Complete bibliographic information each of the 25 texts analyzed is contained in Appendix I.

For 16th century essays, 3,500 words were extracted from each of the following texts: *Discours de la servitude volontaire* ou le *Contr'un* by Etienne de la Boétie, *Les nouvelles récréations et joyeux devis* by Bonaventure des Périers, *L'Architecture ou Art de bien bastir*, a French translation by Jean Martin of Marc Vitruve Poillon's *De Architectura*, and *Propos Rustiques* by Noël Du Fail. For 16th century letters, 3,500 words were extracted from letters written by the following authors: Louise de Colligny, Marguerite de Valois, Diane de Poitiers, and Henri II, King of France.

For 17th century essays, 3,500 words were extracted from the following texts: *Les entretiens d'Ariste et d'Eugène* by Dominique de Bouhours*, Essais de morale* by Pierre Nicole*, Fondations Monastère Carmel* by Arnauld d'Andilly*, and Conjectures académiques* by François-Hédelin, abbé d' Aubignac. For 17th century letters, 3,500 words were extracted from letters by the following authors: Roger de Rabutin, Comte de Bussy, Cyrano de Bergerac, Guy Patin, and Vincent Voiture.

For 18th century essays, 3,500 words were extracted from the following texts: *Le philosophe* by Dumarsais (né César Chesneau), *De l'esprit* by Claude Adrien Helvétius, *Histoire de Louis XI* by Charles Pinot Duclos, and *Discours préliminaire de l'encyclopédie* by Jean le Rond d'Alembert. For 18th century letters, 3,500 words were

extracted from the following authors: Julie de Lespinasse, Charles de Secondat, baron de Montesquieu, Jean-Jaques Rousseau, and Voltaire.

The sole criterion for the sampling of letters was that they be written during the time frame specified. More rigorous decisions had to be made in the case of essays, however, given the inherent internal variation of the genre. First, an attempt was made to select essays that addressed both the past and the present in their narratives, since the PS is often considered a "historic" or narrative tense. Second, since the essays were typically quite long documents, whole texts were not sampled. It was thus necessary to determine whether or not it would be preferable to extract homogenous or non-homogenous samples.

A significant clustering effect was observed in the essays, a feature which clearly influences the representativeness of a given sample. For example, in a randomly selected 800 word sample from the essay *Réflexions sur la monarchie universelle en Europe by* Montesquieu[8], the *imparfait* occurred 17 times, the PS occurred 37 times, and the PC occurred only once. In a different randomly selected 800 word sample from the same essay, the *imparfait* occurred 17 times, the PC occurred 8 times, and the PS did not occur at all.

This reflects an apparent tendency in the essays category in which the author writes a series of paragraphs using almost exclusively the *imparfait* and the PC and then switches to using exclusively the *imparfait* and the PS, or vice versa. When a single paragraph contains all three tenses, it is overwhelmingly the case that the author has switched from using the PS with third person pronouns in an account of past events to

[8] This essay was not included in the final essays corpus, given the fact that Montesquieu's letters were also analyzed.

using the PC with a first person pronoun in order to comment on the narrative account itself. The fact that such clustering occurs suggests that it is perhaps insufficient to take a homogenous sample from such a text, as was done for this study. In the case of Montesquieu, the thematic content of a given sample of text is shown to influence the distribution of past forms. It was therefore determined that it would be preferable to sample several smaller portions of text from different paragraphs across the entire textual body.

Finally tokens that were contextually indicated as being PS, but morphologically indistinguishable from the present indicative such as first and third person singular conjugations of the verb *dire*, *je dis, il dit*, were excluded from the quantitative analyses. All remaining PS and PC tokens were then extracted from the samples and coded for a variety of factors. In the 16th century corpus, there were 481 PS/PC tokens, of which 262 were PS and 131 were PC. In the 17th century corpus, there were 426 PS/PC tokens, of which 127 were PS and 299 were PC. In the 18th century corpus, there were 433 PS/PC tokens, of which 147 were PS and 286 were PC.

These tokens were then analyzed using Goldvarb X for Windows (Sankoff, Tagliamonte, and Smith 2005). The results from the multivariate analysis are presented in Chapter 2 of this thesis. Tokens were coded for the following factor groups: text type (letters or essays), temporal adverbial specification (proximate, connective, frequency, *depuis*, *dès/dès*, definite, and indeterminate), Aktionsart (Stative, Activity, Accomplishment, and Achievement), semantic class (communication, change of possession, mental state, emotive, perception, and 'other'), negation (negative or non-negative), NP object plurality (singular object NP, plural object NP, no object NP), clause

type (matrix or relative), auxiliary selection (*être* 'to be' or *avoir* 'to have'), and grammatical person (first person singular/plural, second person singular/plural, third person singular, and third person plural). The criteria for selecting these factors are discussed in the following chapter.

CHAPTER 2

RESULTS OF THE MULTIVARIATE ANALYSIS AND DISCUSSION

2.1 Envelope of variation

Within the variationist framework, linguistic variation is analyzed as being systematically constrained by linguistic and extralinguistic factors. As addressed in Chapter 1, it is common cross-linguistically for functionally perfect forms to "extend into the realm of pasts or perfectives" (Schwenter and Torres Cacoullos 2008:5). In this sense, perfects come to be in semantic variation with preterits. However, the difficulties of analyzing morphosyntactic variation are manifold. The classic definition of a linguistic variable is "two alternative ways of saying the same thing" (Labov cited in Tagiamonte 2006:70). Whereas this definition can be easily applied to phonological variation because phonemes have no referential value, it is more difficult to extend this characterization to linguistic levels beyond the phoneme, i.e. to morphosyntax. This is due to the fact that morphemes and syntactic constructions, unlike phonemes, are inherently referential. However, in the last thirty years, scholars have applied variationist techniques to the study of morphosyntax through arguing that "the linguistic variable need not be confined to cases in which the variants necessarily mean precisely the same thing. Instead, the linguistic variable may have weak complementarity across the speech community, i.e. functional equivalence in discourse" (Tagliamonte 2006:76).

Thus, subjectivity in discourse has been identified as one of the driving forces behind such semantic change because "the solution to the form-function asymmetry in morphosyntax (verbal tense, aspect, mood) is the hypothesis that distinctions of grammatical function between different forms can be neutralized in discourse" (Schwenter and Torres Cacoullos 2008:10; Sankoff 1988). The discursive neutralization of semantic distinctions is thus the "fundamental discursive mechanism of (non-phonological) variation and change" (Sankoff 1988:153-54). Within the variationist method, circumscribing the variable contexts involves identifying where such neutralization might occur (Schwenter and Torres Cacoullos 2008:10).

In many studies, particularly on contemporary varieties of Spanish and Portuguese, multiple language-internal factors have been indicated as conditioning the development of perfects into perfectives (Schwenter and Torres Cacoullos 2008, Copple 2009, Howe 2009). These factors include, but are not limited to, telicity, temporal or adverbial reference, Aktionsart, negative polarity, object plurality, and clause type. Because no single variable has been isolated as conditioning this variation, a multivariate analysis is ideal in "[facilitating] the extraction of regularities and tendencies from discourse" (Poplack and Tagliamonte 2001:92). Furthermore, a multivariate analysis serves to identify the "magnitude of effect for each factor group" (Copple 2009:74). To analyze syntactic variation within a variationist framework, it is thus necessary to identify the discourse contexts in which semantic distinctions between the competing forms appear to have been neutralized (Sankoff 1988, Copple 2009:74).

A diachronic multivariate analysis might indicate whether similar factors favor the selection of one form or another within different time periods across the two textual

categories sampled. The current study follows Schwenter and Torres Cacoullos (2008:10-12) in circumscribing the envelope of variation broadly by including all instances of the competing forms in which one or the other functions as a past temporal referent. In the grammaticalization literature, the "retention" hypothesis holds that as "linguistic resources" evolve they "retain both semantic and grammatical properties from earlier stages in their development," rendering them functionally polyvalent (Schwenter and Torres Cacoullos 2008:10). In this vein, Schwenter and Torres Cacoullos (2008:11) analyze the "hodiernal perfective" use of the Peninsular Spanish PP (regarded as a stage III perfect in Harris's (1982) schema) as "coexisting with earlier perfect functions, such as perfect of result". If forms are functionally polyvalent, this would render circumscribing a narrow variable context undesirable since "a single form may cover a range of meanings along a grammaticalization path" (Schwenter and Torres Cacoullos 2008:11). Furthermore, circumscribing the variable context broadly allows for the fact that "the very inclusion or exclusion of contexts for analysis may impose a model on the data, which in turn may affect, or even determine, the results" (Poplack and Tagliamonte 2001:114).

Variables were selected and analyzed in the aim of addressing whether or not the PS was subject to increasing restrictions on its distribution across these three time periods and, conversely, whether or not the PC was increasing in its range of distribution. A related question is whether or not the character of the PC was changing over time, for example, whether it was accumulating greater functionality as a perfective. Selection of each factor group was largely guided by previous studies (both synchronic and diachronic) on parallel phenomena in varieties of Spanish (Schwenter and Torres

Cacoullos 2008, Copple 2009, Howe 2009). The relevant information for each factor group will be discussed below.

2.1.1 Factor Groups

All PS and PC verbs were coded according to seven variable contexts: text type, temporal/adverbial reference, Aktionsart, semantic class, negation, object NP plurality, clause type, and auxiliary selection. The greatest attention will be paid to temporal/adverbial reference because this factor was the most consistently selected as significant in all of the corpora analyzed. Each variable was subjected to two analyses: 1) a relative frequency analysis and 2) a multivariate analysis using Goldvarb X for Windows (Sankoff, Tagliamonte, and Smith 2005). The analyses are presented in terms of the results for PS[9], i.e. in terms of which factors favored or disfavored its selection. To carry out these analyses, first a single corpus that combined letters and essays was analyzed for each century. Then the letters and essays subcorpora were analyzed separately in order to compare them to each other and to the combined corpus, and also to observe whether data from one or the other appeared to skew the results in a certain direction.

Factor weights were extracted from the best run of Goldvarb's multiple regression analysis. In the Golvarb analysis, factor weights will range from 0 to 1. Weights that are closer to 1 are interpreted as "favoring" the factor in question, in this case the PS, whereas weights that are closer to 0 are interpreted as "disfavoring" the factor in question (Tagliamonte 2006: 145). A factor is considered significant if it has a p-value less than 0.05.

[9] Since this study focusses on the latter stages of the decline of the PS, it was set as the original default for GoldVarb. However, it would be arguably beneficial in future studies to present results in terms of the PC in order to more closely resemble previous research on Spanish in which the default was set as the PP.

Although there are possible patterns that may be postulated from the results of these multivariate analyses, there also exist possible incongruities in the data, such as negation being selected as significant twice, but not in an identifiably systematic way: once in 16th century letters and once in the 17th century combined corpus. Such discrepancies could arise from randomness in the data, coding errors, or too small a sample size. Thus, any observations that are made regarding the results as a whole should be taken as preliminary. For more conclusive results in the future, repetitions of the same or related experiments and larger sampling sizes might be necessary.

2.1.2. Text type

As discussed in the introduction to this thesis, samples from two text types, letters and essays, were extracted and coded. For each century, data from the texts types were combined to form one general corpus in order to observe the effects of genre on both the synchronic and diachronic distributions of forms. Given the fact that the PS became a stylistically marked variant which is currently restricted to the written language, the natural hypothesis is that the PS will be favored by essays in the multivariate analysis, which is an inherently more stylistically self-conscious text type than letters. Since the periods under consideration are located in the latter stages of the rise of the PC and decline of the PS, I further hypothesize that the PC will be favored by the letters text type as early as the 16th century and continuing on to the 18th century. What remains to be seen, however, are the specific contexts within each text type that favor one variant over another, as well as whether or not diachronic change proceeds in comparable ways across

different genres. The relative frequency of forms in letters and essays are presented in Table 3 below. The factor weights are located beside the relative frequencies[10].

In terms of overall relative frequency in the combined corpus, the PS drops dramatically between the 16th and 17th centuries: 1550: 54.5% → 1650: 29.8%, before increasing very slightly between the 17th and 18th centuries: 1650: 29.8%→1750: 33.9%. The essays subcorpus appears to follow the general trend of the overall corpus: verbs conjugated for the PS drop between the first two time periods, before leveling between the second two. In letters, verbs conjugated for the PS drop slightly between the first two periods from 1550: 29.6% → 1650: 21.6%, before almost completely leveling between the second two: 1650: 21.6% → 1750: 21.5%. It is important to note that the 18th century is the only time period in which the number of PS/PC tokens extracted from both textual categories are roughly equal (214 from essays and 219 from letters). In the 16th century, there were more PS/PC tokens recorded in essays (295) than from letters (186) and, in the 17th century, this situation is reversed, with more tokens being recorded in letters (268) than in essays (158).

[10] A great deal of thought has gone into the most reliable way to present the results of this study, since there are several variables, three centuries, and three corpora (letters alone, essays alone, letters/essays combined) to consider for each century. Thus, the current table format is as follows: all of the relative frequencies for every variable considered in the combined corpora are presented in each relevant section. When a factor group was selected as significant, its corresponding factor weight has been included in the table. Comprehensive tables that present the the results for each individual diachronic corpus are provided are the end of this chapter. Additionally, there are GoldVarb tables for each corpus in each century in Appendix II, which show the relative ranking for each factor in each century and each corpus.

Table 3: The contribution of text type to the choice of the PS over the PC in texts from the 16th, 17th, and 18th centuries.

Text type		16th CENTURY		17th CENTURY		18th CENTURY	
		PS	Weight	PS	Weight	PS	Weight
Essays	N	207/295	0.631	69/158	0.633	100/214	0.638
	%	70.2		43.7		46.7	
Letters	N	55/186	0.300	58/268	0.420	47/219	0.365
	%	29.6		21.6		21.5	
Total	N	262/481		127/426		147/433	
	%	54.5		29.8		33.9	
p-value			0.009		0.049		0.008

In the multivariate analysis of the 16th century, the PS was predictably favored in essays with a factor weight of 0.631, and disfavored in letters, with a factor weight of 0.300 (p-value=0.009). Furthermore, text type was selected as significant in both the 17th and 18th centuries, with similar weights across all three centuries. In all cases, the PS was favored by essays and disfavored by letters. Given the fact that the PS became the stylistically marked variant, the fact that it would be favored in essays and disfavored in letters was predicted in the original hypothesis for this factor, since letters were taken to more closely approximate the vernacular and essays are taken to be more susceptible to stylistic influence. Given the importance of this factor, multivariate results of each variable will be included from both text types, as well as from the combined corpus in the following discussions of the other factors groups tested. Relative frequencies of PS within each factor group, with the exception of Aktionsart, will be presented only for the combined corpus.

2.1.3. Temporal/Adverbial reference

In their multivariate analyses of PP and Preterite use in Mexican and Peninsular varieties of Spanish, Schwenter and Torres Cacoullos (2008:20) found that, in Mexican Spanish, the use of the the PP was highly restricted, making it the marked (non-default) form. Schwenter and Torres Cacoullos determined that one prominent conditioning factor in the Mexican Spanish data was non-specific temporal reference, i.e. that the PP occurred at the highest frequency in contexts where the time period in question was either irrelevant or indeterminate. In contemporary Castilian Spanish, Schwenter and Torres Cacoullos (2008:21) found that PP use was also conditioned by temporal reference due to its frequency in contexts specified as hodiernal, indeterminate, and irrelevant. Prehodiernal events were in fact the only temporal contexts that did not favor the use of the the PP.

According to Dahl (1984:137) and Schwenter and Torres Cacoullos (2008:15) specific or "definite time" adverbials, such as *hier* 'yesterday,' *quand* 'when' in French, and "other temporal clauses should disfavor" the use of perfect forms because temporal specification of a past event "presumably" limits the possibility of focusing on current relevance. This is also the case with connective adverbials. In the current study of French, such connective adverbials would be *d'abord* 'first,' *ensuite* 'then/next,' *après* 'after,' and *en fin* 'finally.' The fact that the Spanish PP has been shown to be disfavored in contexts with specific/determinate past temporal adverbials "[suggests] that these contexts are more highly entrenched as Preterite contexts and are therefore more resistant to change" (Copple 2009:76).

Schwenter and Torres Cacoullos (2008:1) thus observed that the PP occurs at greater frequencies in the least-specified contexts in Peninsular Spanish. This leads the

authors to argue that the PP is becoming the default past perfective in Peninsular Spanish. If this is indeed the path of grammaticalization of the PP in certain varieties of Spanish, it could be hypothesized that the PP expands "into additional perfective contexts not by extending itself gradually from hodiernal to more remote times, but by appropriating more and more perfective contexts that are temporally non-specific or indeterminate" (Copple 2009:76). This proposed path of grammaticalization is therefore characterized by the hypothesis that an increase in the frequency with which the PP is used to describe indeterminately temporally bounded events might "strengthen" the association between PP and past events, "regardless of their current relevance or temporal distance" (Copple 2009:85). Thus, the locus of change may not be located in an increasing relaxation on the restrictions regarding the use of a perfect in denoting events that are temporally distant from the moment of speech; rather, the pathway of change may be facilitated by an increase in the frequency with which perfects are used in contexts that are temporally indeterminate.

For the current study on Classical French, it will thus be important to quantify to what extent the PC is favored in contexts in which the temporal reference is indeterminate or non-specific and whether or not is is possible to observe any diachronic change in its distribution in these contexts.

Schwenter and Torres Cacoullos (2008:17-18) constructed a methodology for identifying temporal distance. According to the authors, it is first necessary to measure two features of the event: 1) specification of the time of occurrence and 2) if specified, chronological distance from the moment of speech. Schwenter and Torres Cacoullos (2008:17-18) specify five categories of temporal distance: day of speech (hodiernal), the

day immediately preceding the day of speech (hesternal), events two or more days before speech (prehesternal), indeterminate--in which the time period is not specified but an interlocutor could potentially ask "when?", and irrelevant--in which the time period is not specified and an interlocutor could not ask "when?" Examples (10) and (11) from the current study illustrate indeterminate versus irrelevant temporal reference, respectively.

10) Indeterminate: M Le Vignon, qui m'***a donné*** [PC] charge de vous baiser les mains, qui vous a esté compagnon de licence, m'a donné espérance de pouvoir impétrer cela de vous. [Patin: 4]
'M Le Vignon, who gave [PC] me orders to kiss your hands, who was your licensing companion, gave me the hope of being able to be granted that from you.'

11) Irrelevant: Le Palais-Royal vous ***a accoustumé*** [PC] à porter tant de respect aux princes que vous vous abaissez sous tous ceux qui portent leurs images. . . [De Bergerac: 164].
'The Royal Palace *accustomed* [PC] you to show so much respect for princes that you fall beneath all who carry their images.'

I have categorized (10) as indeterminate because it is not possible to "resolve the temporal distance of the past event with respect to utterance time" (Schwenter and Torres Cacoullos 2008:18), i.e. there is no way of determining when the past event occurred in relation to the moment it was recounted. Example (11) is classified as irrelevant because the temporal reference is not specified nor would it be possible to query "when" the event occured. Thus, according to Schwenter and Torres Cacoullos (2008:18), the primary distinction between irrelevant and indeterminate temporal reference is whether or not it would be possible to determine the temporal context through further interrogation. In indeterminate contexts, such resolution is possible. In irrelevant contexts, it is not. However, due to the relatively low number of irrelevant tokens in all three time periods, the current study groups indeterminate and irrelevant together as a single category.

In addition to specific temporal reference, other adverbial factors that have been identified as potentially conditioning use of the Spanish PP are its co-occurrence with frequency adverbs, which are thought to provide focus on the iteration of an event (in Spanish: *a veces* 'at times', *siempre* 'always', *nunca* 'never'; in French: *quelquefois* 'sometimes', *parfois* 'at times', *toujours* 'always,' *jamais* 'never') and temporally proximate adverbs (In Spanish: *ahora* 'now' and *recientemente* 'recently'; in French: *maintenant* 'now' *recemment* 'recently') (Copple 2009:165).

A multivariate analysis of temporal and adverbial reference also facilities an exploration of the claim made by Caudal and Vetters (2007:132) that the PC was at best marginal in constructions with definite hesternal reference in Classical French, as well as Dahl's (1984:105) suggestion that the PC was restricted to hodiernal constructions in the 17th century. Furthermore, an examination of the distributions of the PC and PS in indeterminate contexts can facilitate an examination of Caudal and Vetters' (2007:124) argument that the PC could be used to refer to the distant past if there was not a temporal complement present in the construction. This final claim can be compared to Schwenter and Torres Cacoullos' (2008:1) findings on the development of the PP in Spanish, i.e. that it appears to proceed in temporally indeterminate contexts. A diachronic comparison of the distribution of forms might facilitate observations on the pathway of change in French, specifically whether or not the PC in French became more compatible in certain adverbial constructions across these three time periods.

Given the small size of the corpora used in the current study, temporal reference and adverbial specification were grouped together as a single category. Tokens were coded for prehodiernal definite time reference, indeterminate time reference, proximate

adverbials, connective adverbials, frequency adverbials, and for the presence of *depuis* and *dès/dès que* 'since,' which highlight a connection between the past event and the moment of speech. Following the previous studies on Spanish, I hypothesize that the PS will be favored by definite-time and connective adverbials. The PC will be favored by indeterminate contexts, proximate adverbials, frequency adverbials (which highlight the iteration of events), and *depuis* and *dès/dès que*. The PC will be favored by proximate adverbials because, as a perfect, it is considered as highlighting the connection between the moment of speech and the past event (Schwenter and Torres Cacoullos 2008: 21). In the results from the current study, it would appear that definite time adverbials significantly favor the use of the PS over the PC across both text types during all three time periods. The results regarding connective adverbs show greater degrees of fluctuation, but also display a general tendency of such constructions favoring the choice of the PS over the PC. The results regarding frequency adverbs show a great degree of fluctuation and will be discussed at greater length below.

The frequency of occurrence of the PS in indeterminate contexts reflects the tendency of the corpus as a whole: there is a significant decrease of PS tokens in these contexts between the first two time periods, before stabilization. Definite contexts, on the other hand, show a steadier decline of the PS, with a particularly small decrease between the first and second time periods and a larger decrease between the second and third time periods. These results can be observed in Table 4 below. The factor weights included in the table are those from the combined corpus.

Table 4: The contribution of adverbial temporal reference to the choice of the PS over the PC in French letters and essays from the 16th, 17th, and 18th centuries.

Temporal/Adverbial Reference		16th CENTURY		17th CENTURY		18th CENTURY	
		PS	Weight	PS	Weight	PS	Weight
Definite Time Contexts	N %	56/64 87.5	0.882	48/57 84.2	0.923	63/86 73.3	0.863
Connective Adverbs	N %	9/15 60.0	0.451	9/21 42.9	0.579	11/19 57.9	0.749
Indeterminate Contexts	N %	99/140 41.4	0.417	60/283 21.2	0.415	59/266 22.2	0.387
Depuis/ depuis que	N %	3/9 33.3	0.302	1/14 7.1	0.215	0/7 0	0.387
Frequency Adverbs	N %	8/25 32.0	0.244	6/28 21.4	0.374	11/28 39.3	0.514
Dès/ dès que	N %	1/16 6.2	0.069	3/23 13.0	0.312	3/27 11.1	0.153
Total	N %	176/368 47.8	N/A	127 29.8	N/A	147/433 33.9	N/A
p-value		N/A	0.009	N/A	0.049	N/A	0.008

Overall, both connective and frequency adverbials show fluctuations across all three time periods. Thus, these data might indicate that there was not a relationship between the presence of a frequency or a connective adverbial and the selection of the PS or the PC across these time periods. The frequencies of occurrence of the PS in the context of definite time adverbials, however, are subject to a slight and steady decline:

1550: 87.5% → 1650: 84.2% → 1750: 73.3%. This could indicate that the PC is becoming more compatible in these contexts, i.e. as the PC extends its usage into more and more perfective territories, such as definite time contexts, the contrast between the PS and the PC is increasingly neutralized.

The frequency of the occurrence of the PS in indeterminate contexts follows the trend of decline of the PS seen in the corpus overall. There is a dramatic decline of the PS in indeterminate contexts between the first and second time periods and an apparent stabilization between the second and third time periods: 1550: 41.4% → 1650: 21.2% → 1750: 22.2 %. The initial decline of the PS in these results is in line with the hypothesis that the PC would gain ground in temporally indeterminate contexts, while the PS would become less frequent in these same contexts.

There are perhaps too few tokens of *depuis* to draw any firm conclusions regarding its effect on the selection of the PS, but it is the case that the adverb is still capable of occurring with the PS in both the 16th and 17th centuries, though in very low frequencies. There are no tokens of *depuis* modifying a verb conjugated in the PS in the 18th century. The PS is also extremely infrequent in the context of *dès/dès que* in all three time periods.

In the 16th century combined corpus, the PS is favored by definite time adverbials, with a factor weight of 0.882. It is slightly disfavored by connective adverbials (0.451) and indeterminate contexts (0.417) and more dramatically disfavored by proximate adverbials, *depuis*, frequency adverbials, and *dès/dès que*. In the entire 16th century corpus, all of the proximate (10/10) adverbials occurred with verbs conjugated in the PC.

In the 16th century letters subcorpus, temporal/adverbial specification was again selected as having the greatest range. Definite time adverbials favored the PS the most, with a factor weight of 0.922. These results are analogous to those in the 16th century corpus as a whole. However, the relative rankings of the other variables in this category diverge from those in the larger corpus. First, all occurrences of *dès/dès que* were with the PC: 10/10. Second, there was only a single connective adverbial in the entire Letters Corpus and it also occurred in the presence of a verb conjugated for the PC:

12) Je me réjouis extrêmement de ce qu'enfin vous ***avez obtins*** [PC] la permission du Roi. [Coll.]
'I rejoice greatly that you *have* finally *obtained* [PC] the permission of the king.'

Whereas frequency adverbials were disfavored in conjunction with the PS in the corpus as a whole (0.244), in the Letters corpus their factor weight suggests neutrality (0.525). Given the extremely small number of tokens (Total PS N 3/12), however, it would be difficult to draw any firm conclusions from these data. *Depuis* is predictably disfavored by the PS, with a factor weight of 0.147, occurring 14 times with the PC and only twice with the PS:

13) Mon cousin, j'***ay reçeu*** [PC] vostre lettre par où j'***ay sceu*** [PC] de vostre santé, que, je vous asseure, c'est-à-dire depuis que je me ***séparai*** [PS] de lui. [sic] [Vall.]
'My cousin, I *have received* [PC] your letter through which I *learned* [PC] of your health, that, I assure you you, it is since I *separated* [PS] from him.'

14) . . .depuis son parlement , je me ***trouvay*** [PS] si mal , que je ***feus*** [PS] contrainte de garder le lit; mais maintenant que je suis fort bien , et ***ay senty*** [PC] bouger mon enfant.[Vall.]
'. . . since his parliament [?], I found [PS] myself so ill, that I was [PS] constrained to stay in bed; but now I am very well, and I *have felt* [PC] my child move.'

What is of perhaps greater interest in the letters corpus is the factor weight given to indeterminate contexts of 0.430. First, there are a greater number of indeterminate tokens (Total PS N 29/132), suggesting that these results are perhaps more conclusive than those for factors in which there are far fewer tokens. Second, the factor weight of 0.430 is close to both the factor weight that was given by the corpus as a whole (.417), as well as to the factor weight from the essays section of the corpus (.413), suggesting that the distribution of the PS in indeterminate contexts may be similar across textual categories during this time period.

In the essays category, adverbial/temporal specification was again selected as having the greatest range between factor weights. As was the case in both the corpus as a whole and the letters category, definite-time adverbials significantly favor the PS, with a factor weight of 0.845. The PS was disfavored by all other adverbial contexts. Again, some of these contexts, such as proximate adverbials and *depuis*, feature so few tokens overall that these results are not particularly conclusive.

In terms of temporal proximity, in the 16th century, there are examples of variation within the same author's text which suggest that the choice of the PC over the PS was perhaps influenced by the proximity of the past event to the moment of writing. The following examples are taken from the letters of Henri II. Both feature the verb *recevoir* conjugated in the first person. Furthermore, in both cases, there is a plural object NP following the verb. The most salient contextual difference between the two utterances is thus temporal relevance. In the first example, it is indicated that the past action occurred immediately preceding the moment of writing, whereas in the second example, the past action occurred the day before the moment of writing.

15) . . .An vous escryvant sète lêtre, j'***é resu*** [PC] des lèteres de monsyeur de Nevers. [Henri II]
. . . 'While writing you this letter, I *have received* [PC] letters from Monsieur de Nevers.'

16) . . . je ***resus*** [PS] ier les lêtres, par Laménardyère, que m'écryvyés. . . . Henri II]
'. . . I received [PS] the letters yesterday, by Laménardyère, that you wrote me.'

There are also instances in the 16th century of alternations between the PS and the PC with the possible function of marking an opposition between hodiernal and prehodiernal events, such as in the following extract from the letters of Louise de Colligny, in which she switches from narrating events in the PS to denoting that an event that occurred the same day in the PC.

17) . . . . ce que je lui ***fis*** [PS] entendre et il me *témoigna* [PS] le désirer autant que vous sauriez faire. Je lui viens d'envoyer vos lettres, de Madame de Bouillon et de vous, par lesquelles je crois que vous lui en faites mention. Il ***est parti*** [PC] ce matin avec M. [Coll].
'. . . that which I *made* [PS] him listen to and he *showed* [PS] me that he desired it as much that you would know how to do. I have just sent him your letters, Madame de Boullin's and yours, in which I believe you make mention of him. He *has left* [PC] this morning with M.'

Similarly, in the following example, Colligny switches from the PC to the PS, possibly because the second event is both discrete and anchored by hesternal temporal reference.

18) Monsieur, que ***j'ai donné*** [PC] charge à un gentilhomme que ***j'envoyai*** [PS] hier à Flessingue de faire entendre à Votre Excellence, laquelle je supplie, Monsieur vouloir toujours honorer mon petit fils et moi de ses bonnes grâces, que je salue de mes bien humbles recommandations et prie Dieu, Monsieur, donner à Votre Excellence très heureuse et longue vie.. [Coll].
'Monsieur, I *have given* [PC] orders to a gentleman that I sent [PS] yesterday to Flessingue to make Your Excellence understand, who I beseech, Monsieur, to always want to honor my grandson and myself with his good graces, that I greetwith my very humble recommendations and pray to God, Monsieur, to give Your Excellence a very happy and long life. . . .'

The possible influence of proximity of the past event to the moment of speech or writing is also visible in the essays category from the 16th century. In the following excerpt, the author switches from the PC to the PS in the same paragraph. The main contextual difference, once again, appears to be temporal proximity and/or current relevance, i.e. *"nous ne sommes icy venuz* [PC]" 'we have not come here,' makes reference to the location of the moment of speech, whereas the temporal reference of PS is indeterminate. It is important to note that the same verb--*venir*--appears in both the PC and the PS in this extract. Additionally, it is important to note that *"nous ne sommes icy venuz"* is conjugated for the first person plural in the PC, whereas *feirent* and *vindrent* are both third person plural.

19) . . .Compaignons, nous ne ***sommes icy venuz*** [PC] (ainsi que sçavez) pour enfiler des Patenostres. Et, assez pres du pastiz où tiroyent ceux de Flameaux, le son et bruit quilz menoyent ***feirent*** [PS] que beaucoup de Flameaux ***vindrent*** [PS] voir en courant que cestoit. . . . [Du Fail].
'Companions, we *have not come* [PC] here (as you know) to recite the Lord's Prayer . . .And, rather close to the pastis from where those of the Torches were firing,the sound and noise that they brought *made* [PS] it so that many Torches *came* [PS] running to see what it was. . . .

In the following excerpt, the author first uses the PS when discussing an event with definite hesternal time reference. He then switches to the PC when discussing an iterative event, and continues to employ the PC in cases with greater temporal specification, i.e. with connective adverbials—*quand ç'ha esté* and *qu'à la fin j'ay trouvé-*

-before switching back to the PS while discussing an event that was presumably durative: *Tu ne valus de ta vie rien. . . .*

20) . . . vous me ***mandastes*** [PS] hier que je ne vous apprestasse que viandes legières: ***j'ay essayé*** [PC] de toutes sortes de viandes; mais, quand ***ç'ha esté*** [PC] à les apprester, elles alloyent toutes au fons du pot, fors qu'à la fin ***j'ay trouvé*** [PC] ces courées, qui sont demourées sus l'eau: ce sont les plus legières de toutes. Tu ne ***valus*** [PS] de ta vie rien, dit l'evesque, ny ne vaudras. . . . [Des Pér]
'. . . .you ordered me [PS] yesterday that I only prepare light meats for you: I have tried [PC] all kinds of meat; but, when it has come [PC] to preparing them, they all went to the bottom of the pot, except at the end I found these organs11 that remained on the water: these are the lightest of all of them. You valued [PS] nothing of your life, said the bishop, nor will (you) value it.'

In the 17th century combined corpus, adverbial specification was again selected as having the greatest range. This is the case for both subcorpora as well. Definite-time adverbials favored the PS (0.923), whereas indeterminate contexts disfavored it (0.415). The factor weight of 0.415 for indeterminate contexts is similar to the factor weight from the 16th century combined corpus (0.417), as well as both subcorpora (16th century letters: 0.430; 16th century essays: 0.413). Again, because both definite-time adverbials and indefinite contexts have more tokens than other adverbial contexts, it is likely that they comprise the most definitive results from this variable category.

In both the letters and essays subcorpora from the 17th century, temporal/adverbial specification was calculated as having the greatest range. In both, definite time adverbials and connective adverbs favor the PS. Indeterminate contexts disfavor the PS with almost identical factor weights in both corpora (Letters: 0.392; Essays: 0.393). Again, one interesting and perhaps incongruous effect is the fluctuating factor weight for

[11] The translation for *courées* from *Le Trésor de la langue française informatisé* (atilf.atilf.fr) is "poumon ou fressure d'animal". *Fressure* is in turn defined as « Ensemble des gros viscères d'un animal de boucherie : poumons, cœur, thymus, foie et rate » and *viscères* is defined as « Organe essentiel contenu dans les cavités crânienne, thoracique et abdominale,» 'Essential organ contained in the cranial, thoratic, and abdominal cavities.' Thus, it best translation in English seemed to be simply 'organ'.

frequency adverbials among the three corpora; they are disfavored by the PS in both the combined corpus and the Essays corpus, but favored by the PS in the Letters Corpus: 17th Combined: 0.374; 17th Essays: 0.103; 17th Letters: 0.644. Such results suggest that it might be difficult to draw any firm conclusions regarding the distribution of the PS with frequency adverbials from these data.

In examples from the 17th century, it would appear that the PC could occur in prehodiernal definite time constructions, as indicated by the following examples from the letters of Bussy. In (21), Bussy employs the PC in a negative context, before switching to the PS, also in a negative context. The opposition appears to be one of current relevance. What is of perhaps greater importance here is the fact that, in the first extract, Bussy uses *reçevoir* in the PS and, in the second, uses the same verb in the PC. In both cases, the verb is in a definite time construction, first with *qu'à la fin de l'autre mois* and then with *il y a huit jours*). The opposition may thus be triggered by the temporal proximity denoted by the definite-time adverbial, rather than by this adverbial alone.

21) Je n'***ai*** point encore ***répondu*** [PC] à votre lettre, madame, parce que je ne la ***reçus*** [PS] qu'à la fin de l'autre mois. . . . [Bussy]
'I *have* not yet *responded* [PC] to your letter, madame, because I *received* [PS] it only at the end of the other month.'

22) Il y a huit jours que ***j'ai reçu*** [PC] votre lettre, madame. . . . [Bussy]
'I *have received* [PC] your letter eight days ago, madame. . . .'

In the 18th century, in terms of adverbial specification, the ranking of the variables is similar to the previous two centuries: definite time and connective adverbials favor the PS with factor weights of 0.863 and 0.749, respectively. Frequency adverbials neither favor nor disfavor the PS with a factor weight of 0.514. Indeterminate contexts and *dès/dès que* both disfavor the PS, with factor weights of 0.387 and 0.153.

In the 18th century Letters subcorpus, adverbial specification was in fact the only factor group selected as significant, with definite time and connective adverbials favoring selection of the PS, with factor weights of 0.917 and 0.864, respectively. Definite time adverbials also favored the PS in the Essays subcorpus with a factor weight of 0.872, though, in contrast with the Letters subcorpus, connective adverbs slightly disfavored selection of the PS with a factor weight of 0.430. The factor weights for indeterminate contexts are roughly the same in both corpora: 0.382 in letters and 0.369 in essays.

As was the case with the 17th century, examples from the 18th century also indicate that the PC could occur in prehodiernal definite time constructions. In the following extract from the letters of Montesquieu the PS appears to contrast with the PC due to the presence or absence of a definite time adverbial. In the case of the PS, the verb *donnai* appears with the prehodiernal adverbial *avant-hier*; in the case of the PC, the verb *avez reçu* appears in an indeterminate context.

> 23) Je ***donnai*** [PS] avant-hier à dîner à Hardion; lorsque votre mémoire sera arrivé, je lui en donnerai un autre avec Melon et quelques académiciens qui sont ici. Vous ***avez reçu*** [PC] ma lettre sur le duc de La Force, qui veut continuer le prix, et j'attends des nouvelles.
> 'I ***gave*** [PS] before yesterday dinner to Hardion; when your thesis will have arrived, I will give him another with Melon and some other academics who are here. You ***have received*** [PC] my letter about the duke of La Force, who wants to continue the price, and I await some news.'

In other cases in the 18th century, it is difficult to discern whether switches between the PS and the PC are motivated by current relevance or temporal proximity to the moment of speech. In the following example, the act of receiving the letter is conveyed by the PC, but the act of the letter being sent is conveyed by the PS.

24) J***'ai*** bien ***reçu*** [PC] votre lettre datée du 21 novembre adressée à Lausanne; j'avais donné de bons ordres, et elle me ***fut*** [PS] envoyée sur-le-champ. [Rousseau]
'I *have* indeed *received* [PC] your letter dated the 21st of November addressed to Lausanne; I had given good orders, and it *was* [PS] mailed to me immediately.'

The 18th century is also the first time in the entire corpus when the PC is used with *hier*. In the following example (25), there appears to be a context of current relevance:

25). . . J'ai reçu [PC] hier votre lettre de Strasbourg. . . . [Lesp]
. . . 'I *have received* [PC] yesterday your letter from Strasbourg. . . .'

Though such examples suggest that the PC might be becoming more compatible in prehodiernal definite contexts, there are still instances where authors switch from the PC to the PS in the presence of prehodiernal definite time reference, such as in the following example:

26). . . J'***ai reçu*** [PC], comme je le devais, le billet que vous ***m'écrivîtes*** [PS] dimanche dernier, et j'***ai convenu*** [PC] sincèrement avec moi-même que, puisque vous trouviez que j'avais tort, il fallait que je l'eusse effectivement. . . . [Rousseau] 'I *have received* [PC], as I should have, the note that you *wrote* [PS] me last Sunday, and I *have agreed* [PC] sincerely with myself that, since you found that I was wrong, it was necessary that I actually have it . . . .'

As was seen in the frequency counts, the PS is favored over the PC in all three time periods in definite time contexts, but the PC is indeed becoming more frequent in those same contexts. Although, this shift is evident in the relative frequency counts, which indicate a decrease of PS + definite time reference from 91.1% in the 16th century to 84.2% in the 18th century in the combined corpus, a parallel trend is not evident in the factor weights, which are extremely similar in both time periods: 0.882 in the 16th century and 0.863 in the 18th century.

2.1.4 Aktionsart

Tokens were also coded for lexical aspect, or Aktionsart. This coding was carried out according to the Vendlerian lexical classes of predicates as stative or dynamic, telic or atelic, and punctual or durative. According to Vendler (1957:97), Aktionsart is concerned with the "inherent relationship" of the verb with time. A verb's semantic class, on the other hand, categorizes a verb with other verbs that describe similar kinds of actions or states (see Schwenter and Torres Cacoullos 2008:15). Vendlerian classifications group events together according to three oppositions: dynamism (stative vs dynamic), telicity (atelic or telic), and punctuality (durative vs punctual). These oppositions can then be used to group events into four categories:

1) States: stative, atelic, durative.

2) Activities: dynamic, atelic, durative.

3) Accomplishments: dynamic, telic, durative.

4) Achievements: dynamic, telic, and punctual.

The opposition between a stative predicate and a dynamic predicate is determined by whether or not the predicate conveys change or movement. Telicity and atelicity are determined by the presence of an inherent endpoint. A punctual event is one defined as having no duration (Schwenter and Torres Cacoullos 2008:13).

In their study of varieties of Spanish, Schwenter and Torres Cacoullos (2008:13) hypothesized that a perfect that was farther along the grammaticalization path towards becoming a perfective would be subject to fewer Aktionsart restrictions than a perfect that was less grammaticalized. If a perfect is found to co-occur with verbs that can be characterized as punctual, such as achievement verbs, then it is possible that the perfect

has acquired further perfective functionality. Schwenter and Torres Cacoullos (2008:22) thus compared Aktionsart restrictions in Peninsular Spanish to those in Mexican Spanish and found that in Mexican Spanish the PP was subject to Aktionsart restrictions. It occurred most frequently in durative, atelic contexts and was disfavored by Achievement verbs, which, again, highlight the punctuality of an event. Furthermore, use of the PP in Peninsular Spanish was not found to be subject to Aktionsart restrictions, with almost identical rates of the PP for all four of the Vendlerian classes (Schwenter and Torres Cacoullos 2008:23). According to Schwenter and Torres Cacoullos (2008:24), such a loss of "Aktionsart effects indicates a generalization of meaning." Thus, a study of the distribution of the PC and the PS in terms of Aktionsart class over three centuries could perhaps indicate grammaticalization of the PC in French as well.

Following Schwenter and Torres Cacoullos' (2008:13) synchronic analysis of varieties of Spanish and Copple's (2009:89) diachronic study of Peninsular Spanish, verbs in the current study were coded according to the Aktionsart of the infinitive (citation form), in order to ensure that Aktionsart was accounted for separately from aspect. For transitive verbs, object phrases were included in order to account for the object's effect on the telicity of the predicate. As Schwenter and Torres Cacoullos (2008:13) note, the predicate in an example such as "we ate in front" expresses an atelic Activity, whereas "we ate a cake" is a telic Accomplishment. Examples of the categorization of verbs according to Aktionsart can be found in Table 5, which is not an exhaustive account of all the verbs in the corpus. Two verbs, *gagner* and *donner*, appear in two Aktionsart classes. *Gagner* is an activity (atelic) when it means 'to earn' and an accomplishment (telic) when it means 'to win'. *Donner* 'to give' is an achievement

(telic) when it refers to the giving of a gift and an activity (atelic) in cases when it is used with a complement to convey the duration of an event, such as *donner une leçon* 'give a lesson.'

Table 5: Aktionsart Classes, based on Copple's (2009:89) classifications for Spanish

Class	Examples
States	*détester* 'to detest', *admirer* 'to admire', *aimer* 'to like/to love', *croire* 'to believe', *désirer* 'to desire', *désespérer* 'to despair', *durer* 'to last', *être* 'to be', *guarder* 'to keep', *plaire* 'to please', *sembler* 'to seem', *apparaître* 'to appear', *rester* 'to stay', *savoir* 'to know', *sentir* 'to feel', *avoir* 'to have', *vivre* 'to live'
Activities	*marcher* 'to walk', *aider* 'to help', *boire* 'to drink', *danser* 'to dance', *donner* 'to give', *enseigner* 'to teach', *employer* 'to use', *écouter* 'to listen', *gagner* 'to earn', *parler* 'to speak, *faire* 'to make/do', *aller* 'to go', *jouer* 'to play', *pleurer* 'to cry', *regarder* 'to watch,' *rire* 'to laugh', *servir* 'to serve', *travailler* 'to work'
Accomplishments	*jeter* 'to throw', *changer* 'to change', *se marier* 'to get married', *donner* 'to give', *envoyer* 'to send', *gagner** 'to earn', *détruire* 'to destroy', *montrer* 'to show', *devenir* 'to become', *bouger* 'to move', *sauver* 'to save', *apporter* 'to bring', *juger* 'to judge'
Achievements	*abandonner* 'to leave', *terminer* 'to finish', *apparaître* 'to appear', *tomber* 'to fall', *commencer* 'to begin', *donner* 'to give', *découvrir* 'to discover', *rencontrer* 'to meet', *entrer* 'to enter', *arriver* 'to arrive', *tuer* 'to kill', *mourir* 'to die', *naître* 'to be born', *noter* 'to notice', *perdre* 'to lose', *casser* 'to break', *sortir* 'to leave', *voir* 'to see'

The results are displayed by Aktionsart class in Table 6 below. The totals for telicity and atelicity have also been calculated. The results of overall frequency of the PS over the PC can be observed in the last row of the table. When Aktionsart was selected as significant, the factor weights from the combined corpus are also given.

Table 6: The contribution of Aktionsart class to the choice of the PS over the PC in French letters and essays from the 16th, 17th, and 18th centuries.

		16th CENTURY		17th CENTURY		18th CENTURY	
		PS	Weight	PS	Weight	PS	Weight
Stative	N	86 /142	0.604	44	0.581	53	N/A
	%	60.6		34.6		44.2	
Activity	N	27/58	0.332	16	0.443	28	N/A
	%	46.6		20.3		30.8	
Atelic	N	113/200		60/206		81/211	
Total	%	56.5		29.1		38.3	
Ach.	N	62/109	0.578	40	0.616	14	N/A
	%	56.9		40.0		24.1	
Accomp.	N	87/172	0.422	27	0.357	52	N/A
	%	50.6		22.5		31.7	
Telic	N	149/281		67/220		66/222	
Total	%	53.0		30.45		29.7	
Total	N	262/481	N/A	127/426	N/A	147/433	N/A
	%	54.5		29.9		33.9	
p-value		N/A	0.009	N/A	0.049	N/A	N/A

When considered independently, the results for the atelic Aktionsart classes, stative and activity verbs, are erratic in the combined corpus. Both appear to decline considerably in combination with the PS between the first two time periods before augmenting slightly between the second two time periods: 1550: 60.6 % → 1650: 34.6 % → 1750: 44.2 %, for Stative verbs and 1550: 46.6 % → 1650: 20.3 % → 1750: 30.8

% for activity verbs. Since the two classes show similar fluctuations, combining them into a single atelic class does not modify the results, as seen in Table 6.

The results for the telic Aktionsart classes fluctuate slightly less. Whereas accomplishment verbs show the same patterns as stative and activity verbs--decreasing dramatically from 50.6% in 1550 to 22.5% in 1650 before increasing slightly from 22.5% in 1650 to 31.7% in 1750, achievement verbs show a steady decline from 56.9% in 1550 to 40% in 1650 to 24.1% in 1750. When the telic verbs conjugated for the PS are considered as a whole, they display the same path of change as the total number of verbs in the corpus, i.e. they decline between the first two time periods before stabilizing between the second two: 1550: 53.0% → 1650: 30.45% → 1750: 29.7%.

When letters are considered separately from essays, the PS declines slightly for atelic verbs during the first two periods, but is basically stable across all three time periods, with the exception of activity verbs. This is difficult to judge, however, because of the small number tokens in the 16th century. Telic verbs show a slight decrease between the first two time periods before stabilizing between the second two time periods. The behavior of telic verbs thus reflects the general tendency in the corpus as a whole, that of decline before stabilization. These results can be observed in Table 7 below. The factor weights, when applicable, are those that were selected as significant from the letters subcorpus.

Table 7: The contribution of Aktionsart class to the choice of the PS over the PC in French letters from the 16th, 17th, and 18th centuries.

		16th CENTURY		17th CENTURY		18th CENTURY	
		PS	Weight	PS	Weight	PS	Weight
Stative	N	19/54	0.631	24/78	N/A	12/47	N/A
	%	33.3		30.8		25.5	

Activity	N	1/14	0.054	9/54	N/A	9/52	N/A
	%	7.1		16.7		20.9	
Atelic	N	20/68	N/A	33/132	N/A	21/99	N/A
Total	%	28.9		25.0		21.2	
Acc.	N	17/66	0.478	10/70	N/A	18/110	N/A
	%	25.8		14.3		19.6	
Ach.	N	19/52	0.580	15/66	N/A	8/37	N/A
	%	36.5		22.7		21.6	
Telic	N	36/118	N/A	25/136	N/A	26/147	N/A
Total	%	30.5		18.4		17.7	
Total	T	55/186	N/A	58/268	N/A	47/219	N/A
	%	29.6		21.6		21.6	
p-value		N/A	0.046	N/A	N/A	N/A	N/A

Although verbs considered for Aktionsart class fluctuate in the essays category, the category as a whole appears to follow the general trend of the overall corpus: verbs conjugated for the PS drop between the first two time periods, before leveling between the second two. In Letters, verbs conjugated for the PS decrease slightly between the first two periods from 1550: 29.6% → 1650: 21.6%, before almost completely leveling between the second two: 1650: 21.6% → 1750: 21.5%. These results are displayed in Table 8 below. The factor weights are those that were selected as significant from the essays subcorpus.

Table 8: The contribution of Aktionsart class to the choice of the PS over the PC in French essays from the 16th, 17th, and 18th centuries.

		16th CENTURY		17th CENTURY		18th CENTURY	
		PS	Weight	PS	Weight	PS	Weight
Stative	N	68/88	N/A	20/49	0.443	41/73	N/A
	%	77.3		40.8		56.2	
Activity	N	26/44	N/A	7/25	0.326	19/48	N/A
	%	59.1		28.0		39.9	
Atelic	N	94/132	N/A	27/74	N/A	60/121	N/A
Total	%	71.2		36.5		49.6	
Accomp.	N	70/106	N/A	17/50	0.408	34/72	N/A
	%	66.0		34.0		47.2	
Ach.	N	43/57	N/A	25/34	0.804	6/21	N/A
	%	75.4		73.5		28.6	
Telic	N	113/207	N/A	42/84	N/A	40/93	N/A
Total	%	69.3		50.0		43.1	
TOTAL	T	207/295	N/A	69/158	N/A	100/214	N/A
	%	70.2		43.7		46.7	
p-value		N/A	N/A	N/A	0.030	N/A	N/A

In the essays category, telic verbs show a steadier decline when taken as a whole, rather than as two separate classes. This could support the hypothesis that the perfect is becoming more frequent with achievement verbs, though this would be hard to conclude from these data considering the fluctuations of the accomplishment verbs, i.e. the irregular results for one category (accomplishment verbs) might cast doubt upon the

seemingly non-aberrant results for another category (achievement verbs), especially since both categories share the characteristic of being telic.

An examination of the behavior of atelic verbs in the essays data indicates that these might be the source of fluctuations of Aktionsart classes in the entire corpus. Both Stative and Activity verbs decrease in frequency between 1550 and 1650, before increasing in frequency between 1650 and 1750. Telic accomplishment verbs show the same trend: 1550: 66.0% → 1650: 34.0% → 1750: 47.2%, whereas Telic Achievement verbs conjugated for the PS are stable, before showing massive decline: 1550: 75.4% → 1650: 73.5 % → 1750: 28.6 %. If the results from 1650 Essays are taken to be non-representative, it is possible that the small number of tokens is in part responsible for the fluctuating results. It is also possible there is no apparent relationship between the Aktionsart class of a given verb and the selection of the PS or the PC.

In terms of the multivariate analysis, Aktionsart class was selected as significant in the 16th century, with stative verbs favoring the PS (0.604), achievement verbs slightly favoring the PS (0.578), and accomplishment and activity verbs slightly disfavoring the PS, with factor weights of 0.422 and 0.332, respectively. These results are difficult to explain, given that it is not possible to form a natural class between achievement and stative verbs or between accomplishment and activity verbs; i.e. there are no shared features given in the classification of the two Vendlerian classes that were selected as favoring the PS that would exclude the two classes that were selected as not favoring the PS. This further indicates that other factors are likely more important in the selection of the PS over then PC than Aktionsart class.

Similarly to the 16th century corpus, Aktionsart was also selected as significant with similar rankings in the 17th century. Achievement and stative verbs appear to favor the PS, whereas activity and accomplishment verbs appear to disfavor it.

When the 17th century subcorpora were considered separately, Aktionsart was not selected as significant in the letters corpus. In 17th century Essays, Aktionsart was indicated as being significant and achievement verbs were once again selected as favoring the PS, with a factor weight of .804. Stative verbs were almost neutral, being only slightly disfavored with a factor weight of .443. Activity verbs and Accomplishment verbs were both disfavored in the essays data, with factor weights of .408 and .326, respectively. Aktionsart was not selected as significant in any of the 18th century combined corpora.

Although achievement verbs were originally hypothesized to perhaps favor the selection of the PC over the PS, given their possible focus on the current results of past events (cf. Detges 2006), it is also perhaps possible to hypothesize that such verbs might have favored the PS because they are both telic and punctual and thus highlight the completeness of a past event (c.f. Schwenter and Torres Cacoullos 2008). In this sense, they are opposed to activity verbs, which possibly facilitate focus on the repetition of past events and are thus more given to selecting the PC. For example, Schwenter and Torres Cacoullos (2008:13) hypothesized that the Present Perfect would be more sensitive to lexical aspect in Mexican Spanish than in Peninsular Spanish, given the fact that the latter variety is considered to be further along the grammaticalization path. Their results supported this hypothesis in that they found that achievement verbs disfavored the Present Perfect in Mexican Spanish (Schwenter and Torres Cacoullos 2008:21), but not

in pensinsular Spanish (Schwenter and Torres Cacoullos 2008:23). Thus, in terms of the current study, the fact that Aktionsart appeared to be at least sporadically significant in the 16th and 17th centuries and was not significant in the 18th century, suggests that future investigation into this factor could yield more conclusive results.

2.1.5. Semantic Class

In addition to lexical aspect (Aktionsart), verbs were coded for semantic class, following the specifications of Copple (2009) for Spanish. This coding was carried out because previous research had found correlations between resultative Present Perfect use in Old English with verbs of mental states, communication, and perception (cf. Copple 2009:89, Carey 1996:37). The co-occurrence of a perfect with verbs of mental states might serve to shift focus "from the resultant state to the event and then to the discourse itself (introducing current relevance uses), allowing the construction to expand to other event verbs" (Copple 2009:89).

Verbs were thus coded according to the following categories, following Copple (2009:91): Displacement (*entrer* 'to enter', *aller* 'to go', *monter* 'to go up', *venir* 'to come), Emotions (*se sentir* 'to feel,' *désirer* 'to desire,' *plaire* 'to please'), Mental States (*apprendre* 'to learn,' *comprendre* 'to understand,' *savoir* 'to know', *penser* 'to think,' *imaginer* 'to imagine', *croire* 'to believe'), Perception (*voir* 'to see,' *toucher* 'to touch', *regarder* 'to look at'), Communication (*dire* 'to say', *parler* 'to speak', *appeler* 'to call,' *répondre* 'to respond'), Violent Acts (*abuser* 'to abuse', *attaquer* 'to attack', *tuer* 'to kill'), Transformation (*causer* 'to cause', *faire* 'to make'), Change of Possession (*donner* 'to give', *perdre* 'to lose,' *recevoir* 'to receive'), and *Other* (*chercher* 'to look for', *mettre* 'to put', *être* 'to be,' *vivre* 'to live'). Thus, the hypothesis of the current study is that the

PS will be disfavored by Communication, Mental State, Perception, Change of Possession, and Emotion verbs and that the PC will be favored by these same verbs.

While the relative frequency analysis in Table 9 indicates increases in Communication, Mental State, Perception, and Emotion verbs conjugated for the PC, these variables were not selected as significant in the multivariate analysis. The frequency results for "Change of Possession" verbs fluctuate, which is in and of itself interesting due to the high number of tokens of such verbs, specifically *recevoir*, in the Letters category. Due to the extremely low number of tokens for Violent Act and Transformation verbs, these were counted as simply "other" in the final analysis.

Table 9: Frequency breakdown by semantic class in the combined corpus

		16th CENTURY	17th CENTURY	18th CENTURY
		PS	PS	PS
Emotive	N	9/18	4/11	4/20
	%	50.0	36.4	20.0
Communication	N	34/72	17/63	11/50
	%	47.2	27.0	22.0
Possession	N	14/32	10/34	10/28
	%	43.8	29.4	35.7
Perception	N	10/26	6/25	3/15
	%	38.5	24.0	20.0
Mental	N	11/17	12/39	9/35
	%	39.3	30.8	25.7

Communication verbs show a steady decline of the PS and rise of the PC, with the more dramatic change occurring between the first two time periods. This same pattern is

shown by Perception verbs. Steadier declines are shown by Mental State verbs and Emotion Verbs. Possession verbs fluctuate in the data, dropping before augmenting slightly.

2.1.6 Negation

In order to examine whether there was a possible favoring effect of negative polarity on selection of the PC over the PS, verbs were coded according to whether the verb was negated. According to Schwenter and Torres Cacoullos (2008:19), negating a verb "is said to "atelicize [it], yielding a continuative (perfect of persistent situation) meaning", i.e. if a verb has been negated, the situation it denotes could still occur. Such effects can perhaps be observed in the following extract from the 16th century, in which events occurring within the same time period are referred to using both the PC and the PS, with the negated verbs occurring in the PC and the non-negative verbs occurring in the PS.

> 27) Or si on veut dire que Sénèque, Burrhus et Trazéas n'ont éprouvé [PC] ce malheur que pour avoir été trop gens de bien, qu'on cherche hardiment autour de Néron lui- même et on verra que tous ceux qui furent [PS] en grâce auprès de lui et qui s'y maintinrent [PS] par leur méchanceté. . . . Qui jamais a ouï [PC] parler d'un amour si effréné, d'une affection si opiniâtre ; qui a jamais vu [PC] d'homme aussi obstinément attaché à une femme que celui-là le fut à Poppée? [La Boétie]
> 'And yet if one wants to say that Seneca, Burrhus and Trazéas did not feel [PC] this unhappiness except for having been too good people, that one boldly searches around Nero himself and one will see that all those who were [PS] in grace around him and who maintained [PS] themselves by their maliciousness. Who has ever heard tell of a love so wild, an affection so tenacious; who has ever seen a man so obstinately attached to a woman as that one was to Poppaea?'

Because negation could atelicize a given verb, it would perhaps be more illustrative to examine the behavior of this variable as it relates to other variables, such as the Aktionsart and semantic class of the verbs in question (see Copple 2009).

In negative contexts, the PS declines dramatically before increasing: 1550: 44.1% → 1650: 16.7% → 1750: 28.9%. In non-negative contexts, the PS is once again subject to a decline between the 16th century and the 17th century, before stabilizing between the 17th century and the 18th century: 1550: 55.9% → 1650: 31.2% → 1750: 34.5%.

Table 10: Frequency breakdown by negation in the combined corpus

		16th CENTURY		17th CENTURY		18th CENTURY	
		PS	Weight	PS	Weight	PS	Weight
- N	N	236/422	N/A	118/372	0.527	134/388	N/A
	%	55.9		31.7		34.5	
+ N	N	26/59	N/A	9/54	0.320	13/45	N/A
	%	44.1		16.7		28.9	
Total	N	262/481	N/A	127/426	N/A	147/433	N/A
	%	54.5		29.8		33.9	
p-value		N/A	N/A	N/A	0.049	N/A	N/A

The multivariate results regarding negation are somewhat erratic. It was selected as significant in the combined corpus in the 17th century. Negative contexts disfavored the PS with a factor weight of 0.320. Non-negative contexts were almost neutral with a factor weight of 0.527. The only other area in which negation was selected as significant were 16th century letters, with similar results to the 17th century combined corpus: negative contexts disfavored the PS with a factor weight of 0.236 and non-negative contexts were nearly neutral with a factor weight of 0.543. However, negation in 16th century letters was one area where the p-value for the Level #1 analysis was much higher

(p=0.127) than that of the Level #2 analysis (0.046). Thus, the multivariate results pertaining to negation are not conclusive.

2.1.7. Object plurality

In their study on Spanish, Schwenter and Torres Cacoullos (2008:16) hypothesized that "plural objects are more congruent with experiential, as well as continuative (perfect of persistent situation) uses than singular objects, and so should favor the PP". Furthermore, Schwenter and Torres Cacoullos (2008:21) found that, in Mexican Spanish, the PP was favored by plural object NPs, which might be seen as indicating the repetition of an event, as in the invented examples (23) and (24) below:

28) J'ai mangé une pomme. 'I ate an apple'

29) J'ai mangé des pommes 'I ate apples'

In this sense, plural object NPs convey the iteration of an event in a similar vein as frequency adverbials. The results from Schwenter and Torres Cacoullos' (2008:20-23) studies on Spanish supported this hypothesis, with plural object NPs favoring use of the PP in both Mexican and Peninsular Spanish, with factor weights of 0.66 and 0.65, respectively. Thus, in the current study, it was hypothesized that the PC would be favored in contexts where there was a plural object and that the PS would be disfavored in this same context. No hypotheses were ventured as to the favoring or disfavoring of either the PC or the PS in the context of singular object NPs or in predicates without an object NP.

Table 11: Frequency Breakdown by Object NP Type in the Combined Corpus

		16th CENTURY	17th CENTURY	18th CENTURY
		PS	PS	PS

		16th CENTURY	17th CENTURY	18th CENTURY
None	N	166/278	65/208	81/213
	%	59.7	31.2	38.0
Sing.	N	80/160	51/159	44/157
	%	50.0	32.1	28.0
Plural	N	16/43	11/159	22/63
	%	37.2	18.6	34.9
Total	N	262/481	127/426	147/433
	%	54.5	29.8	33.9

In terms of relative frequency, the PS declines considerably before increasing in the contexts of both singular object NPs and in intransitive contexts. These results are particularly striking for the plural NP category, for which the frequencies of PS tokens are very close in both the 16th and 18th centuries: 1550: 37.2% → 1750: 34.9%. These results are not in line with the hypothesis that the PC would increase in the context of plural object NPs, though, as will be discussed below, there is some evidence that the plural object NPs may have disfavored the PS (and thus favored the PC) in the 16th century Essays subcorpus.

Thus, the PS fluctuates in two of the categories that were hypothesized to facilitate its decline: plural object NPs and negative contexts. The PS follows the same trend in non-negative contexts as it does in indeterminate contexts, in conjunction with singular object NPs and third person singular subject pronouns, and in the combined corpus as a whole.

Object NPs were not selected as significant in the combined corpora from any of the three time periods sampled. Nor were they selected as significant in any of the letters subcorpora. The only corpus in which they were selected as significant was the 16th century essays subcorpus (p=0.043). In this single case, the results were in line with the hypothesis that plural object NPs would disfavor the PS and thus favor the PC, with a factor weight of 0.249 Singular object NPs and verbs without any object NP did not notably favor or disfavor the PS with factor weights of 0.499 and 0.547, respectively.

2.1.8 Grammatical person

All tokens were also coded for grammatical person. The hypothesized relationship between grammatical person and PS/PC selection is as follows: the PC will be favored by first and second person pronouns and disfavored by third person pronouns. Two observations inform this hypothesis. The first is that when the PS is employed in Modern Written French, it is used overwhelmingly in the third person (Hollerbach 1994:220). Second, given the proposed "current-relevance" function of a perfect--in this case the PC--it is more likely that such forms would occur in the first or second person. Thus, it is probable that the PC will be favored by first and second person as early as the 16th centuy, but it is less certain whether the PC or the PS will be favored by third person pronouns. A further question is whether the decline of the PS and the rise of the PC occur at the same rate for different grammatical persons.

Given the small number of tokens of verbs conjugated for the first person plural pronoun *nous*, these verbs were included with the first person singular pronoun *je*. Similarly, given the small number of tokens for both second person singular *tu* and

second person singular *vous*, these verbs were combined into a single caregory. Third person singular and plural pronouns were much more common in the data, and were thus grouped separately. It is important to note that the pronouns *il* and *on* include impersonal reference as well as personal. Relative frequencies and factor weights are provided in Table 12, below.

Table 12: Frequency breakdown by grammatical person in the combined corpus

		16th CENTURY		17th CENTURY		18th CENTURY	
		PS	Weight	PS	Weight	PS	Weight
Ils/elles	N	73/104	0.578	14/79	0.395	41/109	0.460
	%	70.2		17.7		37.6	
Il/elle/on	N	158/251	0.581	85/192	0.634	83/202	0.596
	%	62.9		44.3		41.4	
Je/nous	N	23/94	0.255	28/133	0.385	22/94	0.493
	%	24.5		21.0		23.4	
Tu/vous	N	8/32	0.392	0/22	N/A	1/28	0.111
	%	25.0		0		3.6	
Total	N	262/481	N/A	127/426	N/A	147/433	N/A
	%	54.5		29.8		33.9	
p-value		N/A	0.009	N/A	0.049	N/A	0.008

In terms of relative frequency, the PS remains relatively stable for first person verbs across all three time periods in the combined corpus. The occurrence of the PS in the second person was already very low in the 16th century (N=8/32, 25%) before disappearing almost completely, with no tokens in the 17th century and one token in the 18th.

Third person singular verbs reflect the general tendency of the corpus as a whole, dropping drastically between the first two periods, from 62.9% in the 16th century to 44.3% in the 17th century, before apparently leveling from 44.3% in the 17th century to 41.4% in the 18th century. Third person plural verb forms exhibit a fluctuation, first dropping dramatically from 70.2% to 17.7%, before increasing to 37.6%.

In terms of the multivariate analysis, in the 16th century combined corpus, the PS was only slightly favored by both third person singular and third person plural verbs (0.581 and 0.578), while it was more significantly disfavored by second and first person verbs (0.329 and 0.255, respectively).

Similarly to the results from the 16th century combined corpus, grammatical person was selected as significant in the 17th century combined corpus, with the same ranking of the factors, with the exception of the second person. Whereas in the 16th century, 25% (8/32) of second person pronouns occurred with verbs conjugated for the PS, in the 17th century all occurrences of second person verbs were in the PC (22/22). The 17th century corpus also shows a slight increase in the factor weight given to third person singular verbs (0.634) and a slight decrease the factor weight given to third person plural verbs (0.395). In the 18th century combined corpus, third person singular verbs continued to slightly favor the PS, with a factor weight of 0.596. The factor weights for first person singular and plural and also third person plural are fairly close to 0.5, suggesting that the PS was neither favored nor disfavored by these persons. With only a single PS token, second person verbs significantly disfavored the PS with a factor weight of 0.111.

Grammatical person was not selected as significant in the letters subcorpora for any of the three centuries, whereas it was selected as significant in essays from all three centuries. In the 16th century essays subcorpus, along with adverbial specification, auxiliary selection (see below), object plurality, and clause type (see below), grammatical person was selected as significant (p-value = 0.043). The results from the essays corpus are roughly analogous to those from the combined corpus. The third person slightly favors the PS with factor weights of 0.587 for third person singular and 0.523 for third person plural, whereas the first and second person more significantly disfavor the PS with factor weights of 0.157 for the first person and 0.217 for the second person.

As mentioned above, grammatical person was also selected as significant in the 17th and 18th century essays subcorpora. In the 17th century, the third person singular continued to favor the PS (0.632), whereas the third person plural disfavored it (0.346). The results for the first person are more predictable as they disfavor the PS (0.246). In the 18th century, the third person singular continues to favor the PS (0.607), while the third person plural disfavors the PS (0.408), as does the first person singular (0.246).

2.1.9 Clause Type

Schwenter and Torres Cacoullos (2008:16) also found that relative clauses and interrogatives favored the use of the PP in Contemporary Spanish. In forming their intial hypothesis they argued that "if the function of perfects is to present background information which is relevant to a situation at a given point. . .we expect the PP to be generally favored in relative clauses which encode background information". Thus, verbs in the current study were also coded for the following clause types:

relative/declarative, and matrix/declarative, and interrogative, under the hypothesis that the PS would be disfavored in relative clauses.

Table 13 Clause Type in the Combined Corpus

		16th CENTURY		17th CENTURY		18th CENTURY	
		PS	Weight	PS	Weight	PS	Weight
Matrix	N	151/231	N/A	70/182	0.388	84/228	N/A
	%	65.4		38.5		36.8	
Relative	N	111/250	N/A	57/244	0.648	63/205	N/A
	%	44.4		23.4		30.7	
Total	N	262/481	N/A	127/426	N/A	147/433	N/A
	%	54.4		29.8		33.9	
p-value		N/A	N/A	N/A	0.049	N/A	N/A

In terms of relative frequency, the PS drops in frequency in relative clauses from 44.4% to 23.4% before increasing slightly from 23.4% to 30.7%. In matrix clauses, the change in frequency of the PS again mirrors the corpus as a whole. It drops from 65.4% to 38.5%, before basically leveling to 36.8%.

In the multivariate analysis of the combined corpora, clause type was selected as significant only in the 17th century, with main clauses favoring the PS (0.648) and relative clauses disfavoring it (0.388). Similarly, the 17th century is the only period in which clause type was selected as significant for the letters subcorpus, with a p-value of 0.007. The factor weights are roughly analogous to those from the combined corpus, with the PS being favored in matrix clauses (0.655) and disfavored in relative clauses (0.369).

The 16th century was the only period in which clause type was selected as significant for the essays subcorpora, with a p-value of 0.043. These results are

comparable to those from both the 17th century combined corpus and the 17th century letters subcorpus. The PS is favored in matrix clauses (0.601) and disfavored in relative clauses (0.359). Given the fact that clause type was somewhat erratically selected as significant across these two centuries, it would be difficult to make any firm observations from these data, especially concerning diachronic changes in distribution. However, there is some indication that relative clauses disfavor the PS, a finding which could benefit from further exploration in the future.

2.1.10 Auxiliary Selection

In French, the morphologically complex PC can select one of two auxiliaries, *avoir* or *être*, as in example (25) from Voltaire:

> 30) Si Cromwel renaissoit, lui qui ***a fait*** [PC] couper la tête à son roi et ***s'est fait*** [PC] souverain.
> 'If Cromwell were born again, he who *has cut* [PC] the head off of his king and ***has made*** [PC] himself ruler.'

In contemporary descriptive accounts of French grammar, *être* is most commonly characterized as being selected by "verbs of locomotion, i.e., intransitive verbs that indicate moving to or from some place, or state of being, and with rester," as well as by all reflexive verbs (Hollerbach 1994:161-62). The majority of other verbs select *avoir* (Hollerbach 1994:162). It would therefore be potentially interesting to observe whether verbs that select *être* or *avoir* were more or less likely to be conjugated for the PS.

Since no relationship between auxiliary selection and the development of perfects into perfectives has been postulated in previous research (the Modern Spanish PP is formed only with one auxiliary, *haber*, which is cognate with French *avoir*), this variable was analyzed for mostly exploratory reasons. One tentative hypothesis could be that the

PC would be disfavored by *être*-selecting verbs, which are typically characterized as intransitive, given the observation that "a favoring effect of any direct object (not only plural) would reflect retention from the resultative construction" (Schwenter and Torres Cacoullos 2008:21ff.). Another possibility could be that since *être* verbs are in the minority, there might be some kind of avoidance of the auxiliary *être* which would favor conjugating them in the PS rather than the PC. The frequency results for auxiliary selection from the combined corpus, as well as the factor weights (when applicable) are given in Table 14.

Table 14: Frequency breakdown by auxiliary selection in the combined corpus

		16th CENTURY		17th CENTURY		18th CENTURY	
		PS	PC	PS	PC	PS	PC
Être	N	61/72	0.770	18/47	N/A	18/53	N/A
	%	84.7		38.8		34.0	
Avoir	N	201/409	0.447	109/379	N/A	129/380	N/A
	%	49.1		28.8		33.9	
Total	N	262/481	N/A	127/426	N/A	147/433	N/A
	%	54.5		29.8		33.9	
p-value		N/A	0.009	N/A	N/A	N/A	N/A

Although no relationship between PS/PC selection and this variable was hypothesized, it would appear, from both the relative frequency data and the multivariate analyses, that auxiliary selection may not have been completely unrelated to the choice of the PC over the PS. The relative frequency analysis shows extremely low frequencies of *être*-selecting verbs with the PC in the 16th century, whereas verbs that would select *avoir* occur in roughly equivalent numbers during the same period. In the 16th century,

the PS cooccured with *être*-selecting verbs strikingly more often than the PC at a rate of 84.7%, whereas it cooccured with *avoir*-selecting verbs 49.1% of the time, at a roughly equal rate as the PC. In the 18th century, the PS cooccured with *être*-selecting verbs 34% of the time and with *avoir*-selecting verbs 33.9%. Thus, a diachronic comparison of these frequencies suggests an eventual leveling of the effect of auxiliary selection and the choice between the PC and the PS. Furthermore, auxiliary selection was identified as significant in some cases in the multivariate analyses, as will be discussed below. The fact that auxiliary selection possibly had an effect on PS/PC selection could extend from the nature of the PC as a morphologically complex construction, as opposed to the PS, which is morphologically simplex. Such effects are thus potentially the result of syntactic complexity (compound constructions) on the selection of the PC or the PS.

In the 16th century, the frequencies of the PS and the PC were roughly equal when conjugated for verbs that would select *avoir* as an auxiliary. However, it was much more frequent for verbs that would select *être* as an auxiliary to be conjugated in the PS. Both categories drop in rates of conjugation for the PS between the first two periods before leveling between the second two periods, with the initial decline in verbs conjugated for the PS that would select *être* as an auxiliary being more dramatic (1550: 84.7% → 1650: 38.8%) than for those that would select *avoir* (1550: 49.1% → 1650: 28.8%).

In the 16th century, after adverbial/temporal specification, auxiliary selection was the only variable that was simultaneously identified as significant in the corpus as a whole as well as in both subcorpora. In all cases, the PS was favored over the PC by verbs that would select *être* as an auxiliary, with the following factor weights: 16th

century combined corpus: 0.770 (p-value=0.009); 16th century letters subcorpus: 0.838 (p-value=0.046); 16th century essays subcorpus: 0.708 (p-value=0.043).

Auxiliary selection was not identified as significant in either the 17th or 18th century combined corpora, nor was it selected as significant in the 17th or 18th century essays subcorpora. In fact, after the 16th century, the only corpus in which it was indicated as being significant in the analysis of the 17th century letters subcorpus, with a p-value of 0.035. Auxiliary selection was not selected as significant in 18th century in any level of the analysis.

2.2. Comparison of the multivariate results in the combined corpus, the letters corpus, and the essays corpus.

The complete results from the multivariate analysis are presented in Tables 15, 17, and 18 below. The tables show a century by century breakdown of the factor weights for each variable, as well as the relative frequency and total number of PS tokens. This presentation has the advantage of comparing factor weights across centuries. The factor groups are arranged according to the decreasing value of the range in the 16th century and the factors within each factor group are arranged in decreasing order of factor weight. This same order is maintained across centuries even though it may not reflect the ordering of factor groups and factors in the 17th and 18th centuries. The p-values from the best run of the Goldvarb analysis are located at the end of each table, along with the input (Corrected Mean) and the log-likelihood score.

Table 15: Factors contributing to the choice of the PS over the PC in French letters and essays (combined corpus) from the 16th, 17th, and 18th centuries.

	16th century		17th century		18th century	
	Factor weight	% / N	Factor weight	% / N	Factor weight	% / N
Adverbial						
Def.	0.882	91.1/91	0.923	84.2/48	0.863	73.3/63

Connect.	0.451	69.6/16	0.579	49.9/9	0.749	57.9/11
Ind.	0.417	46.4/136	0.415	21.2/60	0.387	22.2/59
Prox.	0.370	50.0/1	-	0/0	-	0/0
Depuis	0.302	33.3/3	0.215	7.1/1	-	0/0
Freq.	0.244	35.5/12	0.374	21.4/6	0.514	39.3/11
Des que	0.069	15.0/3	0.312	13.0/3	0.153	8.8/3
Range	81.3	-	26	-	71	-
Text Type						
Essays	0.631	70.2/207	0.633	43.7/69	0.638	46.7/100
Letters	0.300	29.6/55	0.420	21.6/58	0.365	21.5/47
Range	33.1	-	21.3	-	27.3	-
Grammatical Person						
Il/elle	0.581	62.9/158	0.634	44.3/85	0.596	41.1/83
Ils/elles	0.578	70.2/73	0.395	17.7/14	0.460	37.6/41
Tu/vous	0.392	25.0/24	-	-	0.111	3.6/1
Je/nous	0.255	24.5/23	0.385	18.1/28	0.493	23.4/22
Range	32.6	-	23.9	-	48.5	-
Auxiliary Selection						
Être	0.770	84.7/61	-	-	-	-
Avoir	0.447	49.1/201	-	-	-	-
Range	32.3	-	-	-	-	-
Aktionsart						
Stat.	0.604	60.6/86	0.581	34.6/44	-	-
Ach.	0.578	56.9/62	0.616	40.0/40	-	-
Acc.	0.422	50.6/87	0.357	22.5/27	-	-
Act.	0.332	46.6/27	0.443	20.3/16	-	-
Range	27.2	-	25.9	-	-	-
Clause Type						
Main	-	-	0.648	38.5/70	-	-
Relative	-	-	0.388	23.4/57	-	-
Range	-	-	26	-	-	-
Negation						
-Neg.	-	-	0.527	31.7/9	-	-
+Neg.	-	-	0.320	16.7/118	-	-
Range	-	-	20.7	-	-	-
Total		54/481		30/426		34/433
p-value	0.009	-	0.049	-	0.008	-

Log-likelihood	-223.086	-	-185.041	-	-213.070	-
Input	0.593	-	0.250	-	0.288	-

Factor group not selected as significant: object NP and factors no object, singular object, plural object.

As can be seen in Table 15, temporal/adverbial reference, text type, and grammatical person were consistently selected as significant in the choice of the PS over the PC across all three time periods in the combined corpus. Within these factor groups, it is evident that there is little to no change in the factor weights assigned to definite contexts (0.882 in the16th century and 0.863 in the 18th century) and indeterminate contexts (0.417 in the 16th century and 0.387 in the 18th century). There is also little to no change in the factor weights assigned to text type; essays favored the PS in the 16th century with a nearly identical factor weight to the 18th century (16th: 0.631 and 18th: 0.387) and letters disfavored the PS in the 16th century (0.300) and in the 18th century (0.365). Table 15 also shows that auxiliary selection was selected as significant in the 16th century, but not in either of the other two time periods. Aktionsart class was selected as significant in the 16th and 17th centuries, but not in the 18th. Finally, clause type and negation were selected as significant only in the 17th century. The factor group object NP was never selected as significant.

Table 16: Factors contributing to the choice of the PS over the PC in French letters from the 16th, 17th, and 18th centuries.

	16th century		17th century		18th century	
	Factor weight	% / N	Factor weight	% / N	Factor weight	% / N
Adverbial						
Def.	0.922	80.8/21	0.950	78.3/18	0.864	27.1/20
Freq.	0.525	25.0/3	0.644	27.8/5	0.577	22.2/2
Ind.	0.430	22.0/29	0.392	14.3/26	0.382	11.5/17
Depuis	0.147	12.5/2	0.358	78.3/1	-	-

Connect.	-	-	0.761	35.7/5	0.917	70.0/7
Prox.	-	-	-	-		
Des que	-	-	0.400	15.8/3	0.230	5.9/1
Range	77.5	-	59.2	-	68.7	-
Aktionsart						
Stat.	0.631	33.3/18	-	-	-	-
Ach.	0.580	36.5/19	-	-	-	-
Acc.	0.478	25.8/17	-	-	-	-
Act.	0.054	7.1/1	-	-	-	-
Range	57.7	-	-	-	-	-
Auxiliary Selection						
Être	0.838	66.7/10	0.537	22.5/54	-	-
Avoir	0.464	26.3/45	0.220	14.3/4	-	-
Range	37.4	-	31.7	-	-	-
Negation						
-Neg.	0.543	31.5/51	-	-	-	-
+Neg.	0.236	16.7/4	-	-	-	-
Range	30.7	-	-	-	-	-
Clause Type						
Main	-	-	0.655	29.5/36	-	-
Relative	-	-	0.369	15.1/22	-	-
Range	-	-	28.6	-	-	-
p-value	0.046		0.035	-	-	-
Log-likelihood	-86.180		-110.990	-	-	-
Input	0.252		0.174	-	-	-

Factor groups not selected as significant: object NP and grammatical person.

As can be seen in Table 16, the only factor group that was consistently selected as significant from the letters corpus in all three time periods was temporal and adverbial reference. Again, there is little change in the factor weights for definite contexts (16^{th}: 0.922, 18^{th}: 0.864) and indeterminate contexts: (16^{th}: 0.430, 18^{th}: 0.382). As was the case for the combined corpus, Aktionsart class was selected as significant in 16^{th} century, but not in the 17^{th} or the 18^{th}. Auxiliary selection was selected as significant in the 16^{th} and 17^{th} centuries, but not in the 18^{th}. Negation was selected as significant in the16th

century, but not in the 17th or the 18th. Clause type was selected as significant in the 19th century. Finally, object NP plurality and grammatical person were not selected as significant during any of the three time periods.

Table 17: Factors contributing to the choice of the PS over the PC in French essays from the 16th, 17th, and 18th centuries.

	16th century		17th century		18th century	
	Factor weight	% PS / N	Factor weight	% PS / N	Factor weight	% PS / N
Adverbial						
Def.	0.845	94.6/70	0.890	88.2/30	0.872	84.3/43
Ind.	0.413	66.5/107	0.393	33.0/33	0.369	35.6/42
Connect.	0.408	72.7/16	0.605	57.1/4	0.430	44.4/4
Prox.	0.219	50.0/1	-	-	-	-
Freq.	0.217	40.9/9	0.103	10.0/1	0.497	47.4/9
Depuis	0.129	33.3/1	-	-	-	-
Des que	0.099	27.3/3	0.219	14.3/1	0.134	11.8/2
Range	74.6	-	78.7	-	73.8	-
Grammatical Person						
Il/elle	0.587	78.0/128	0.632	61.1/55	0.607	54.0/61
Ils/elles	0.523	74.4/67	0.346	19.1/9	0.408	34/15.9
Tu/vous	0.217	342.9/3	-	-	0.491	33.3/1
Je/nous	0.157	26.5/9	0.288	23.8/5	0.246	23.5/4
Range	43	-	28.6	-	36.1	-
Aktionsart						
Stat.	-	-	0.443	40.8/20	-	-
Ach.	-	-	0.804	73.5/25	-	-
Acc.	-	-	0.408	34.0/17	-	-
Act.	-	-	0.326	28.0/7	-	-
Range	-	-	47.8	-	-	-
Auxiliary Selection						
Être	0.708	89.5/51	0.783	73.7/14	-	-
Avoir	0.447	65.5/156	0.456	39.6/55	-	-
Range	26.1	-	32.7	-	-	-
Object						
No object	0.547	77.8/133	-	-	-	-
Sing.	0.499	65.3/62	-	-	-	-

Plural	0.249	41.4/12	-	-	-	-
Range	29.8	29.8	-	-	-	-
Clause Type						
Main	0.601	78.6/136	-	-	-	-
Relative	0.359	58.2/71	-	-	-	-
Range	24.1	-	-	-	-	-
p-value	0.043	-	0.030	-	0.032	-
Log-likelihood	-129.038	-	-70.714	-	-119.947	-
Input	0.778	-	0.436	-	0.470	-

Factor group not selected as significant: negation

Table 17 shows results analogous to those seen in Tables 15 and 16 regarding temporal/ adverbial reference, namely that definite time adverbials favored the PS with roughly equal weights over all three time periods (16th: 0.845, 17th: 0.890, and 18th: 0.872) and disfavored indeterminate contexts across all three time periods (16th: 0.413, 17th: 0.393, and 18th: 0.393.). Grammatical person was the only other factor group selected as significant in all three time periods. Aktionsart class was selected as significant in the 17th century, but not in the 16th or 18th centuries. Auxiliary selection was selected as significant in the 16th and 17th centuries. Object NP plurality and clause type were selected as significant in the 16th century, but not in the 17th or 18th centuries. Negation was never selected as significant.

CHAPTER 3

CONCLUSIONS

3.1 Summary of the results

In terms of overall diachrony, a variety of observations can be made regarding the data at hand, both in terms of relative frequency and in terms of the multivariate analysis. First, one of the most salient patterns is that of a dramatic decrease in the frequency of PS tokens between the first and second time periods measured, before an apparent leveling between the second and third time periods (54.5%→29.8%→33.9%). This pattern is most evident in the essays data (70.2%→43.7%→46.7), but much less so in the letters data, which show relative stability between the three time periods (29.6%→21.6%→21.5%), with only a very slight (and thus perhaps negligible, given the sample size) decrease of 8 percentage points between the first two periods. The overall decrease in the combined data could be indicative of actual fluctuations in the linguistic system, i.e. that the PS was in fact subject to a massive decrease in frequency before basically leveling. However, since this same trend is not observed in the letters corpus, this is not likely to be the case. Thus, the preliminary conclusion of this study regarding overall frequency is that the PS declined slightly between 1550 and 1650 before stabilizing between 1650 and 1750.

In terms of the frequency of all of the factors tested, this same pattern of decreasing frequency before leveling is visible in the behavior of the PS with respect to the following factors in the combined corpus: telic verbs (achievement and accomplishment), non-negative contexts, matrix clauses, third person singular pronouns, singular object NPs, and indeterminate contexts. Given the fact that the letters and essays data show different diachronic patterning, it would be ideal, in future studies, to analyze these factor groups within each subcorpus, as well as in the combined corpus. In the current study, this has been done only for Aktionsart class

For the combined corpus, the PS declined in its co-occurrence with telic verbs, before increasing slightly (56.5%→ 29.1%→ 38.3%) in the combined corpus, whereas it declined progressively in the letters corpus (28.9%→ 25.0%→ 21.2%). In the essays corpus, the telic verbs conjugated for the PS declined dramatically between the first two periods and then increased slightly between the second two, indicating that the essays data conditioned the relative frequency of forms in the data set as a whole. Conversely, the results for atelic predicates are more consistent across all three corpora. In the combined corpus, the PS declined in atelic contexts between the first two periods, before basically leveling (53.0%→30.45%→29.7%). This same trend is seen in the letters data (30.5%→18.4%→17.7%). The essays data show steady decline across all three periods, with a more dramatic decrease between the first two (69.3%→50.0%→43.1%).

With the exception of indeterminate contexts and first person pronouns, many of the factors that were hypothesized to favor the choice of the PC over the PS show fluctuations over the three time periods with respect to the relative frequency of their co-occurrence with the PS. This is the case for negative contexts (44.1%→16.7%→28.9%),

the presence of a plural object NPs (37.2%→18.6%→34.9%), and relative clauses (44.4%→23.4%→30.7%). In the case of first person pronouns, the PS shows relative stability over all three time periods (24.5%→21.0%→23.4%). Given these fluctuations, it is not possible to make any conclusions on the diachronic relative frequencies of the PS in these contexts.

In terms of adverbial/temporal specification, the PS does show a decrease in the combined corpus: 91.1 %→ 84.2%%→73.3%. The PC was thus possibly becoming more frequent in these same contexts. Perhaps more important, however, is the very dramatic decrease of the PS in indeterminate contexts, before an apparent leveling: 46.4%→21.2%→22.2%. This relative frequency data could suggest that the PS was more entrenched in definite contexts and resistant to change than in it was in indeterminate contexts, wherein the lack of temporal specification facilitated an increase in the PC. However, whereas the multivariate analysis does indicate the PS was favored in definite contexts across all three time periods, it does not indicate any decrease in the factor weights over time (0.882→0.923→0.862). Similarly, the analysis indicates that the PS was disfavored in indeterminate contexts, but it does not indicate any noteworthy diachronic change in the factor weights: 0.417→0.415→0.387). Thus, while it is possible to observe that temporal/adverbial specification likely had an effect on the selection of the PS over the PC in definite-time contexts; it is thus not possible to conclude that the PS was becoming less favored in either of these contexts over time. In the same vein, while it is possible to observe that indeterminate contexts influenced the selection of the PC over the PS, it is not possible, from these data, to observe any diachronic change in this influence.

In terms of text type, the multivariate results are similar to those for temporal/adverbial specification in that they consistently indicate that the PS was favored in essays (0.631→0.633→0.638) and disfavored in letters (0.300→0.420→0.365), they are not suggestive of language change during this time frame. Particularly striking in this regard are the results for essays, which yield nearly identical factor weights across all three centuries, whereas letters show some fluctuations.

While temporal/adverbial specification and text type indicate very little change between these three time periods, the results for grammatical person fluctuate. Third person singular verb forms do not exhibit change over time (0.581→0.634→0.596), whereas first person verb forms actually appear to increase in their factor weights (0.255→0.385→0.493). The results for first person verb forms are rendered more curious by the fact that the minority of first person tokens were taken from essays: 9/23 in the 16th century (39.1%), 5/28 in the 17th century (17.9%), and 4/22 in the 18th century (18%). Thus, it is not possible to state in this instance that these data were conditioned by the essays sample.

Whereas the multivariate analysis does not indicate diachronic shifts in the factor weights assigned to definite-time, indeterminate, and generic (text-type) contexts, there are some diachronic observations that can be proposed given the data at hand. Namely, the multivariate analysis shows an increasing restriction on the number of factor groups that favor the PS over the PC over the three time periods, with five variable contexts selected as significant in the 16th century combined corpus (adverbial/temporal specification, text type, grammatical person, auxiliary selection, Aktionsart), and only three selected as significant in the 18th century combined corpus (adverbial/temporal

specification, text type, and grammatical person). Importantly, the subcorpora also show an increasing restriction on variable contexts, with four factors selected as significant in 16th century letters (temporal/adverbial specification, Aktionsart, auxiliary selection, and negation) and only one factor selected as significant in 18th century letters (temporal/adverbial specification), and with five factors selected as significant in 16th century essays (temporal/adverbial specification, grammatical person, auxiliary selection, object plurality, and clause type) and only two factors selected as significant in 18th century essays (temporal/adverbial specification and grammatical person). These results might be taken as indicating an increased semantic neutralization between the PS and the PC, i.e. as a relaxation on restrictions of the contexts in which the PC could or could not occur. Finally, the multivariate results from the 18th century combined corpus are roughly analogous to more current estimations of the character of the PS, i.e. it is significantly favored over the PC in more literary contexts (essays) and with third person singular pronouns (see Hollerbach 1994:220 for a discussion of the PS in contemporary written French).

3.2 Future Directions

The methodological reasons for diachronic fluctuations in the data include sampling frames that were either erroneous or too small. If the frames were indeed too small, the essays data could have been subject to skewing if a single author used the PS at a markedly higher or lower rate than the other authors included in the corpus. The possible effects of inter-authorial variation could possibly be minimized in further studies by taking larger, more diverse samples. In the future, it could also be illustrative to sample other text types, such as poetry or prose, in order to create a maximally comprehensive basis for comparison.

It is also possible that the time periods measured were too close together for an accurate observation of linguistic change and that the selection of time frames that are farther apart would facilitate a more illuminating diachronic analysis. For the current study, the 16th century was selected as the earliest century because it was the earliest century in which there was enough available data from letters. Future studies could focus on a different text-type that is considered to fairly well approximate the vernacular, as Copple (2009) did with plays for her study of grammaticalization in Spanish. Copple's use of plays—which are more abundantly available than letters—allowed her to place approximately 200 years between each period she analyzed. Such framing might allow for more reliable observations regarding the pathway of change.

In terms of the multivariate analysis, it would be illustrative to further isolate the effects of factor groups operating in tandem, to determine, for example, whether achievement verbs when negated or followed by a plural object NP favor the PC more

than achievement verbs that are not negated or followed by a plural objet NP? It would also be preferable perhaps to separate temporal reference and adverbial specification into two factor groups (see Schwenter and Torres 2008:13-19). In this same vein, it would be advisable to separate text type as a variable context from the other contexts under scrutiny, as well as to perform a crosss tabulation of variable contexts within each text type. Furthermore, it would be preferable to analyze the results in terms of the PC, rather than the PS, in order to bring them into line with other studies on grammaticalization in the Romance Languages (Schwenter and Torres Cacoullos 2008, Howe 2009, Copple 2009). Analyzing the results in terms of the PC would facilitate an examination of the ways in which the PC was acquiring greater functionality as a perfective while retaining functionality as as perfect.

Finally, the fact that auxiliary selection, analyzed for purely exploratory purposes, favored the PS indicates that further research is needed into earlier stages in the development of both the PC and the function of *être* as an auxiliary verb.

The following conclusions can be drawn from the current study. While diachronic shifts are not apparent in the factor groups consistently selected as significant across all three time periods (temporal/adverbial specification, text type, and grammatical person), the PS was possibly subject to increasing restrictions in its opposition to the PC, since it was favored over the PC in five factor groups in the 16th century combined corpus and in only three factor groups in the 18th century combined corpus. The results from both essays and letters reflect these same tendencies, with the PS being favored in four contexts in both of the 16th century subcorpora, in only one context in 18th century letters, and in only two contexts in 18th century essays. The most salient results from this

study are those regarding temporal and adverbial specification. It would appear to be the case, from both the relative frequency and the multivariate analyses, that the PC was favored in indeterminate contexts, whereas the presence of definite-time adverbials favored the PS.

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APPENDIX I

The Corpus

Note:

The dates of birth and death for each author are indicated immediately after his or her name.

The date of publication of each manuscript is indicated in square brackets.
Author codes are indicated in square brackets under each citation.

16th century letters

Colligny, Louise de. 1555-1620 [1872]. Lettres de Louise de Colligny, Princesse d'Orange, à sa belle-fille, Charlotte-Brabantine de Nassau, Duchesse de la Tremoille (Les Roche-Baritaud). Extracted from archive.org, 2010.
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16th century essays

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18th century letters

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[12] Was not included in the final analysis.

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APPENDIX II

MULTIVARIATE ANALYSIS BY CORPUS

Table A: Multivariate Analysis of the 16th Century Combined Corpus

Adverbial	Probability	% PS	Total N	% Data
Definite	0.882	91.0	91	18.9
Connective	0.451	69.6	16	3.3
Indeterminate	0.417	46.4	136	28.3
Proximate	0.370	50.0	1	0.2
Depuis	0.302	33.3	3	0.6
Frequency	0.244	35.3	12	2.5
Des/des que	0.069	15.0	3	0.6
Range	81.3			
Text Type				
Treaties Essays?	0.631	70.2	207	43.0
Letters	0.300	29.6	55	11.4
Range	33.1			
Grammatical Person				
Il/elle	0.581	62.9	158	32.8
Ils/elles	0.578	70.2	73	15.2
Je/nous	0.255	24.5	23	4.9
Tu/Vous	0.392	25.0	24	4.9
Range	32.6			
Aux. Selection				
Être	0.770	84.7	61	12.7
Avoir	0.447	49.1	201	41.8
Range	32.3			

Aktionsart	Probability	% PS	Total N	% Data
Stative	0.604	60.6	86	17.9
Achievement	0.578	56.9	62	12.9
Accomplish.	0.422	50.6	87	18.1
Activity	0.332	46.6	27	5.6
Range	27.2			

Log likelihood = -223.086 Significance = 0.009
Corrected mean 0.593

Table B: Multivariate Analysis of the 16th Century Letters Subcorpus

	Probability	% PS	Total N	% Data
Adverbial				
Definite	0.922	80.8	21	11.3
Frequency	0.525	25.0	3	1.6
Indeterminate	0.430	22.0	29	15.6
Depuis	0.147	12.5	2	
Range	77.5			
Aktionsart				
Stative	0.631	33.3	18	9.7
Achievement	0.580	36.5	19	10.2
Acc.	0.478	25.8	17	9.1
Act.	0.054	7.1	1	05
Range	57.7			
Aux Selection				
Être	0.838	66.7	10	5.4
Avoir	0.464	26.3	45	24.2
Range	37.4			
Negation				
Non-Negative	0.543	31.5	51	27.4
Negative	0.236	16.7	4	2.2
Range	30.7			

Input 0.252
Log likelihood = -86.180 Significance = 0.046

Table C: Multivariate Analysis of the 16th Century Essays Subcorpus

	Probability	% PS	Total N	% Data
Adverbial				
Definite	0.845	94.6	70	23.7
Indeterminate	0.413	66.5	107	36.3
Connective	0.408	72.7	16	5.4
Proximate	0.219	50.0	1	0.3
Frequency	0.217	40.9	9	3.1
Depuis	0.129	33.3	1	0.3
Des/des que	0.099	27.3	3	1.0
Range	74.6			
Grammatical Person				
Il/elle	0.587	78.0	128	43.3
Ils/elles	0.523	74.4	67	22.7
Tu/vous	0.217	42.9	3	0.68
Je/nous	0.157	26.5	9	3.1
Range	43			
Object				
No object	0.547	77.8	133	45.0
Sing. Obj.	0.499	65.3	62	21.0
Pl. Object	0.249	41.4	12	4.1
Range	29.8			
Aux Selection				
Être	0.708	89.5	51	17.3
Avoir	0.447	65.5	156	52.9
Range	26.1			
Clause Type				
Main	0.601	78.6	136	46.1
Relative	0.359	58.2	71	24.0
Range	24.2			

Input 0.778
Log likelihood = -129.038 Significance = 0.043

Table D: Multivariate Analysis of the 17th Century Combined Corpus

	Probability	% PS	Total N	% Data
Adverbial				
Definite	0.923	84.2	48	11.3
Connective	0.579	42.9	9	2.1
Indeterminate	0.415	21.2	60	14.1
Frequency	0.374	21.4	6	1.4
Des/des que	0.312	13.0	3	.7
Depuis	0.215	7.1	1	2.3
Range	70.8			
Clause Type				
Main	0.648	38.5	70	16.4
Relative	0.388	23.4	57	13.4
Range	26			
Aktionsart				
Achievement	0.616	40.0	40	9.4
Stative	0.581	34.6	44	10.3
Activity	0.443	20.3	16	3.8
Accomplish.	0.357	22.5	27	6.3
Range	25.9			
Person				
Il/elle	0.634	44.3	85	19.9
Ils/elles	0.395	17.7	14	3.2
Je/nous	0.385	18.1	28	9.5
Range	23.9			
Text Type				
Treaties	0.633	43.7	69	16.2
Letters	0.420	21.6	58	13.6
Range	21.3			
Negation				
Non-negative	0.527	31.7	9	2.1
Negative	0.320	16.7	118	27.7
Range	20.7			

Input 0.250
Log likelihood = -185.041 Significance = 0.049

Table E: Multivariate Analysis of the 17th century Letters Subcorpus

	Probability	% PS	Total N	% Data
Adverbial				
Definite	0.950	78.3	18	6.7
Connective	0.761	35.7	5	1.9
Frequency	0.644	27.8	5	1.9
Indeterminate	0.392	14.3	26	9.7
Des/des que	0.400	15.8	3	0.7
Depuis	0.358	78.3	1	0.4
Range	59.2			
Aux Selection				
Avoir	0.537	22.5	54	20
Être	0.220	14.3	4	1.5
Range	31.7			
Clause Type				
Main	0.655	29.5	36	13.4
Relative	0.369	15.1	22	8.2
Range	28.6			

Log likelihood = -110.990 Significance = 0.035

Table F: Multivariate Analysis of the 17th Century Essays Subcorpus

	Probability	% PS	Total N	% Data
Adverbial				
Definite	0.890	88.2	30	18.9
Connective	0.605	57.1	4	2.5
Indeterminate	0.393	33.0	33	20.9
Des/des que	0.219	14.3	1	0.6
Frequency	0.103	10.0	1	0.6
Range	78.7			
Aktionsart				
Achievement	0.804	73.5	25	15.8
Stative	0.443	40.8	20	12.7
Accomplish.	0.408	34.0	17	10.8
Act	0.326	28.0	7	4.4
Range	47.8			
Aux Selection				

Être	0.783	73.7	14	8.9
Avoir	0.456	39.6	55	34.8
Range	32.7			
Grammatical Person				
Il/elle	0.632	61.1	55	34.8
Ils/elles	0.346	19.1	9	5.7
Je/nous	0.288	23.8	5	3.2
Range	28.6			

Input 0.436
Log likelihood = -70.714 Significance = 0.030

Table G: Multivariate Analysis of the 18th Century Combined Corpus

	Probability	% PS	Total N	% Data
Adverbial				
Definite	0.863	73.3	63	14.5
Connective	0.749	57.9	11	2.5
Frequency	0.514	39.3	11	2.5
Indeterminate	0.387	22.2	59	13.6
Des/des que	0.153	8.8	3	0.7
Range	71			
Grammatical Person				
Il/elle	0.596	41.1	83	19.2
Ils/elles	0.460	37.6	41	9.5
Je/nous	0.493	23.4	22	5.1
Tu/vous	0.111	3.6	1	0.2
Range	48.5			
Text Type				
Treaties	0.638	46.7	100	23.0
Letters	0.365	21.5	47	10.9
Range	27.3			

Input 0.288
Log likelihood = -213.070 Significance = 0.008

Table H: Multivariate Analysis of the 18th Century Letters Corpus

	Probability	% PS	Total N	% Data
Adverbial				
Connective	0.917	70.0	7	3.2
Definite	0.864	27.1	20	9.1
Frequency	0.577	22.2	2	0.9
Indeterminate	0.382	11.5	17	7.8
Des/des que	0.230	5.9	1	0.5
Range	68.7			

Log likelihood = -91.353
Input = .173
Significance = 0.000

Table I: Multivariate Analysis of the 18th Essays Corpus

	Probability	% PS	Total N	% Data
Adverbial				
Definite	0.872	84.3	43	20.0
Frequency	0.497	47.4	9	4.2
Connective	0.430	44.4	4	1.9
Indeterminate		35.6	42	19.6
Des/des que	0.134	11.8	2	0.9
Range	73.8			
Grammatical Person				
il/elle	0.607	54.0	61	28.5
Tu/Vous	0.491	33.3	1	0.47
Ils/elles	0.408	42.0	34	15.9
Je/nous	0.246	23.5	4	1.9
Range	36.1			

Log likelihood = -119.947
Significance = 0.032 Input = 0.470