

# **A revised account of the EPP in French: A semantics-based analysis\***

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## **SUMMARY**

Current theories of the Extended Projection Principle (EPP) argue that the constraint can be satisfied by a single element in the inflectional domain. Existing EPP theories use their own unique mechanisms to explain the constraint, including syntactic, semantic and phonological. Within these frameworks, a language can satisfy the EPP either through V-T movement or by filling the specifier position of the Tense Phrase (TP). No EPP theory, however, is able to account for a language that requires two elements to appear in the inflectional domain, whether it is through movement or not. One element in TP should be enough to satisfy the EPP. In French, both V-T movement and merge/move of a subject to spec-TP (including expletives) must occur and thus seems to present a counterexample to the current framework. All of the existing EPP theories fail to account for French for one systematic reason: they carry an underlying assumption that only one element is needed to satisfy the EPP in the inflectional domain, whether it is a syntactic feature, a phonologically overt element or a semantic visibility requirement. As a result, a revision to the current framework is required in order to account for French. This paper has two objectives: in the first section, I will carefully detail previous EPP theories and explain why each of them is unable to account for the French data. I will show that they all fail for the same reason: they assume one element in T is sufficient to satisfy the EPP. In the second section, I will propose an alternative account for how French checks the EPP. I will show that the French verb is able to check the D-feature on T but it is unable to bind the event variable of VP. It will be argued that the difference between French and null subject languages, like Spanish, is the type of D-feature found on the verb.

## **RÉSUMÉ**

Les théories actuelles du Principe de Projection Étendu (PPE) soutiennent que la contrainte peut être satisfaite par un seul élément dans le domaine de flexion. Les théories sur le PPE existantes utilisent leurs propres, uniques mécanismes pour expliquer la contrainte, incluant syntaxiques, sémantiques et phonologiques. Dans le cadre de ces systèmes, une langue peut satisfaire le PPE soit par le mouvement V-F, soit en remplissant la position du spécificateur du syntagme de flexion (SF). Cependant, aucune théorie du PPE n'est capable de prendre en compte une langue qui exige que deux éléments se situent dans le domaine de flexion, soit par le mouvement ou non. Un élément dans le SF devrait être suffisant pour satisfaire le PPE. En français, le mouvement V-F et le fusionnement/mouvement d'un sujet au spéc-SF

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(incluant les explétives) sont nécessaires et alors le français semble présenter un contre-exemple à la théorie actuelle. Toutes les théories existantes du PPE négligent de prendre le français en compte pour une raison systématique: elles contiennent une supposition sous-jacente que seulement un élément est nécessaire pour satisfaire le PPE dans le domaine de flexion, soit un trait syntaxique, un élément phonologiquement prononcé ou une exigence sur la visibilité sémantique. Conséquemment, une révision du système actuel est requise pour pouvoir prendre en compte le français. Cet article a deux objectifs: dans la première section, je détaillerai avec précision les théories antérieures du PPE et j'expliquerai pourquoi chacune de ces théories ne peut pas tenir compte des données françaises. Je montrerai qu'elles échouent toutes pour la même raison : elles partent du principe qu'un élément dans le domaine de flexion est suffisant pour satisfaire le PPE. Dans la deuxième section, je proposerai une analyse alternative pour comment le français vérifie le PPE. Je montrerai que le verbe en français est capable de vérifier le trait déterminant sur la flexion mais il n'est pas capable de se lier à la variable de l'évènement du SV. Il sera soutenu que la différence entre le français et les langues avec les sujets nuls, comme l'espagnol, est le type de trait D trouvé sur le verbe.

## 1 INTRODUCTION

Current theories of the Extended Projection Principle (EPP) come in many flavours: i) syntactic (for example, Chomsky, 1995, 2001; Alexiadou and Anagnostopoulou, 1998; Alexiadou, 2006; among others); ii) phonological (Bobaljik, 2002; Holmberg, 2000; Landau, 2007; Takahashi, 2002); iii) semantic (É. Kiss, 2001; Rosengren, 2002); iv) an extension of another functional head, e.g. C (Bury, 2003; Frascarelli, 2007; Joutteau, 2007); and v) reductionist, e.g. Case (Bošković, 2002; Grohmann, Drury and Castillo, 2000). Nevertheless, all of the existing theories carry one underlying assumption: *it is sufficient to satisfy the EPP using only one syntactic relation, whether this occurs by checking a syntactic feature, by inserting a phonologically overt element or by making a semantic variable visible in the inflectional domain*. None of these theories are able to account for a language that requires two elements to appear in the inflectional domain in the same construction, requiring that two syntactic relations be satisfied at the same time, which is what we find in Modern French.

Alexiadou and Anagnostopoulou (1998; henceforth A&A) argue that languages can satisfy the EPP in one of two ways: by moving an overt DP or by merging an expletive in the specifier of TP, e.g. English, or through V-T movement, e.g. Spanish (A&A, 1998). Thus, languages can satisfy the EPP either through X- or XP-movement. Modern French presents a counterexample to this proposal because it requires both of these syntactic operations to occur. Consider the examples in (1) where we see that French resembles English in requiring that subjects be overt (compare (1a) to (1b)). If there is no overt subject, an expletive can be inserted (1c):

- (1) a. Un homme est arrivé.  
 A man be.3sg arrived  
 'A man has arrived.'  
 b. \*Ø est arrivé un homme.  
 c. Il est arrivé un homme.  
 It be.3sg arrived a man  
 'There arrived a man.'

Thus, given the sentences in (1a-c), we might argue that French employs the Germanic strategy: XP-movement satisfies the EPP. However, French also has V-T movement (Emonds, 1978; Pollock, 1989; Biberauer and Roberts, 2005), which is exemplified in the following examples by the adverb placement (Pollock, 1989):

- (2) a. Je bois souvent du café.  
 I drink.1sg often some coffee  
 'I often drink coffee.'  
 b. \*Je souvent bois du café.
- (3) a. I often drink coffee.  
 b. \*I drink often coffee.

Examples (2a-b) provide strong evidence that the verb has moved to T in French, but that the verb does not move in English (3a-b). Following A&A's (1998) proposal, this should be sufficient to satisfy the EPP. However (2a) also requires an overt subject to be grammatical (*\*Bois souvent du café*).<sup>1</sup> Given the current framework, *either* the filled specifier of TP or V-T movement should be able to satisfy the EPP in French; however, this is not borne out. If we follow A&A in assuming that the EPP is a universal constraint that can be satisfied in two different ways cross-linguistically (either through X- or XP-movement), both of these movements should not be required for the EPP in a single language.

The French facts presented in this section lead us to ask the following: Is the EPP a language universal constraint? If we want to keep the EPP as a language universal, we will need to find a way to account for the French data. Using the tools at our disposal, we can ask: Is there a way to account for Modern French using the existing EPP theories? As mentioned, none of the existing theories can account for the French data. Does this mean that the EPP is not a language universal? We do not have enough evidence to simply give up on the theory just yet. The next logical question to ask is: Is there a way to *revise* the EPP theory to account for French? If so, this would allow us to keep the EPP as a language universal. If we are unable to revise the current EPP theory, could it be better handled as a language-specific constraint? If we can reduce the EPP to a language-specific constraint, are we able to explain the movements usually associated with it (e.g. subject movement, expletive merge and V-T movement) using a different mechanism?

The goal of this paper is to demonstrate that none of the current EPP theories can account for Modern French and to explore how we might revise these theories to account for the data. This paper has two objectives: in the first section, I will detail the EPP theories that are currently

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<sup>1</sup> It is possible to get an imperative reading here: Drink often coffee! However, it is not possible to infer the intended 1sg reading: #I often drink coffee.

available and explain why each of them is unable to account for the Modern French data.<sup>2</sup> I will show that regardless of their motivations (e.g. phonology, syntax, semantics), the current EPP theories all cannot account for French for one systematic reason: they assume that one syntactic relation, i.e. movement in the inflectional domain, is enough to check the EPP and they are unable to account for a language like French without postulating additional features or arguing that the EPP is not universal. In the second section, I will motivate the proposal that French checks the EPP in the same way as Null Subject Languages (NSL): by moving the verb to T. The verb carries nominal features that are able to check the D-feature on T. I will argue that the nominal features carried by the verb are the same features carried by pronouns. The difference between French and a NSL like Spanish is which type of pronominal feature bundle the verb carries. Following work by Wiltschko (1998), I will assume that as there are two types of pronouns: i) true (personal) pronouns which are essentially Agreement features; and ii) *D*-pronouns which consist of both a D-head and Agreement features. If there are two types of pronouns, there must also be two types of pronominal feature bundles, i.e. the features carried by each type of pronoun. In French, the verb carries the features of a true pronoun whereas in Spanish, the verb carries the features of a *D*-pronoun. I will argue that the Spanish verb, carrying the features of a *D*-pronoun, is able to bind the event variable, *e*. The French verb, on the other hand, carries the features of a true pronoun and is thus unable to bind *e*. French solves this problem by filling the specifier of TP. I will show that this proposal correctly predicts different semantic interpretations depending on whether an expletive or a full DP subject is merged.

The paper is organized as follows: in Section 2, I will discuss current theories of the EPP in the syntactic, semantic, and phonological literature and explain precisely how they fail to account for Modern French. In Section 3, I will show how an alternative account along the syntax-phonology interface, where V-T movement can occur in the phonology (cf. Chomsky, 2000) cannot work for theoretical as well as empirical reasons. In Section 4, I will present the proposal, where I will show that V-movement can be analysed as pronominal, following the diagnostics in Wiltschko (1998). I will show how the interpretation of the expletive construction differs from that of a full DP subject, both in French and cross-linguistically. Finally, I will conclude the paper in Section 5.

## 2 CURRENT THEORIES OF THE EPP

In this section, I will discuss the current EPP theories in the literature. This section has been divided into 2 sub-sections: i) syntactic accounts; and ii) interface accounts of the EPP. The syntactic accounts all assume that the EPP is part of narrow syntax and is feature-based. They assume that there is a feature (nominal or D) that must be checked in the inflectional domain. These accounts differ in whether they assume that the EPP is a language universal or a parameter and further, what element (head or phrase) is sufficient to check the EPP-feature. The interface accounts, on the other hand, assume that the EPP is not a syntactic requirement. Instead, it occurs at one of the interfaces: i) syntax-phonology (PF); or ii) syntax-semantics (LF). If the EPP is a PF requirement, an overt element must be merged/moved in the inflectional domain to check a phonological feature. If the EPP is a LF requirement, merge/move to the inflectional domain should result in differences in interpretation. All of these proposals fail to account for French for *one* systematic reason: they carry an underlying assumption that one element is sufficient to satisfy the EPP, whether this occurs through feature checking, for Case reasons or to satisfy an

<sup>2</sup> Due to space limitations, I have limited myself to discussing only EPP theories in the TP-domain.

interface requirement. Therefore, they cannot account for Modern French, a language that not only allows but *requires* two elements to move into the inflectional domain in every structure.

## 2.1 SYNTACTIC ACCOUNTS

The EPP was formulated by Chomsky (1981) to account for the distribution of expletives in English. In English, an overt DP (4a) or an expletive (4b) must be found in the subject position; if not, the sentence will be ungrammatical (4c):

- (4) a. A girl fell.  
 b. There fell a girl.  
 c. \* $\emptyset$  fell a girl.

The EPP was originally part of the English grammar only (Chomsky, 1981), arguing that all sentences need a subject in English. It was later extended to all languages (Chomsky, 1982) and was argued to be a language universal. The EPP is informally (5) and formally (6) stated below (Adapted from Chomsky, 1981, 1982):

- (5) **Extended Projection Principle (informal)**  
*Every sentence needs a subject.*
- (6) **Extended Projection Principle (formal)**  
*The specifier of the inflectional projection must be filled.*

In Chomsky's early framework (1981, 1982), the EPP could be satisfied by merging an expletive or by moving a subject to the specifier of TP. To account for NSLs, like Spanish, Chomsky argued that *pro* is merged in this position to satisfy the EPP (Rizzi, 1980, 1982, 1986). However, as the syntactic research advanced, it became more and more clear that the original EPP proposal was too limited to account for the cross-linguistic data and keep as a uniform, cross-linguistic generalization. Thus, revisions to the original hypothesis were required. In this section, I will discuss in detail a few of the current EPP proposals that look at this constraint from a syntactic point of view and explain how they are unable to account for the French data.

### 2.1.1 CHOMSKY (1995, 2001)

Within the *Minimalist Program* (Chomsky, 1995), it is assumed that functional heads carry uninterpretable strong features that must be checked before spell-out. The notion of the EPP has remained unchanged in Chomsky's framework: an expletive must be merged or a subject/*pro* must move to spec-TP in order to check the EPP. Chomsky (1995) formalized this notion and argued that TP carries a strong D-feature (D\*) that can only be checked by a nominal element or by an expletive, as a last resort.

This proposal requires that a null element, *pro*, be found in the inflectional domain (TP) for NSLs. In the Minimalist Program, in order to check a feature such as Case, theta role, etc., we simply need Agree, which can happen across a long distance. Thus, features can be satisfied without movement to a higher clause. In order to argue that *pro* is found in TP, we would need to see binding or reconstruction effects in this position. Further, if we are postulating that this null

element is found in TP to check a theory-dependent feature, the EPP, we must ask whether this is explanatory. Thus, if *pro* is required in the T-domain, like overt subjects in English, its presence should impact native speakers' interpretation of the utterance. The presence of *pro* in the T-domain has been questioned by numerous researchers (A&A, 1998; Barbosa, 2009; Kučerová, in press; McCloskey, 1996; Platzack; 2003). It has been shown that *pro* does not show binding effects in TP in Spanish, Italian and Portuguese (A&A, 1998). Thus, there seems to be no evidence that a *pro*-like element is found in TP in these languages. Further, Kučerová (in press) argues that *pro* does not show binding effects in TP in Czech but binding effects are found lower in the structure. Therefore, there seems to be evidence that if *pro* exists in these languages, it is not found in T. If we eliminate *pro* from TP, how are NSLs satisfying the EPP?<sup>3</sup>

### 2.1.2 ALEXIADOU AND ANAGNOSTOPOULOU (1998)

A&A (1998) provide an alternative approach to Chomsky's strong D-feature: they dissociate D-feature checking from the specifier of TP position. A&A argue that while the feature must be checked in the inflectional domain, it does not need to be checked by a feature in the specifier. Specifically, they argue that the way the EPP can be satisfied is parametrized cross-linguistically. The hypothesis is summarized in (7):

(7) **D-feature hypothesis**

*The EPP requires feature checking of a D-feature in the inflectional domain.*

A&A argue that languages can satisfy the EPP in one of two ways: through XP-movement or through X-movement. They argue that languages differ in their EPP strategy based on their language family. Germanic languages, like English, require overt subjects (either by moving a DP or by merging an expletive) and are thus XP-EPP languages. Celtic, Greek and Romance languages, on the other hand, tend to allow their subjects to drop. Instead of requiring that an element be merged in the specifier of the inflectional domain, A&A argue that in these languages, the verb carries phi-features (person, number), which are able to check the D-feature on T through V-T movement. Languages that employ this strategy are called X-EPP languages. Consider the following example from Spanish:

- (8) a. Ø Hablamos juntos  
       talk.1pl together.pl  
       'We talk together.'  
       b. Juan habla conmigo  
       Juan talk.3sg with.me  
       'Juan talks to me.'

In (8a), the inflection *-amos* indicates that the subject is 1<sup>st</sup> person plural and carries enough information to check the D-feature on T, checking the EPP. A&A argue that when an overt subject is used, as in (8b), it is not able to check the EPP because it occupies an A'-position (cf. Zubizarreta, 1999). This view argues that when an overt subject is used, it is found in a

<sup>3</sup> Holmberg (2005) argues in favour of a *pro*-like element in the inflectional domain in Finnish. Contra A&A and Platzack (2003), he argues that the *pro* identifies Agr and not vice versa. Due to space restrictions, I will not go over Holmberg's arguments here.

separate projection and does not occupy the specifier of TP. A&A's analysis is also able to explain why these language families do not have expletives. Further, this account does not force the authors to postulate a null pronoun or *pro* (Rizzi, 1980; 1982; Chomsky, 1982) in order to check the EPP. The verb carries the D-feature and is thus able to check all the relevant features that a DP or null DP would be able to check, e.g. theta-roles, Case, etc.

A&A's analysis is able to account for a range of empirical data; however, their analysis is unable to account for a language that requires both types of movement: Modern French. The authors do not disregard French in their paper but they are unable to explain the two movements in a systematic way. They argue that French is an XP-EPP language, like English. They do not deny the fact that French has V-T movement but they argue that this verb movement is not able to satisfy the EPP. This seems counterintuitive because they postulate that the EPP is the trigger for V-movement in NSLs. To account for French, A&A argue that there are strong features in T that trigger verb movement to this position. This requires a further revision to their original account because A&A need to assume that the inflectional domain is split into AGR and T. AGR triggers EPP-related movement (D-feature) while T triggers V-movement due to strong inflectional features. However, the verb in French does end up in this AGR position in order to agree with the subject. The authors argue that this occurs for Case-related reasons. In short, to account for verb-movement in French, A&A are required to propose several rules that must be applied in a particular order; if not, the correct features will not be checked on T and AGR. In addition, the authors must argue that there are two types of verb movement cross-linguistically due to the French facts. This is precisely what their original formulation of the EPP was trying to avoid.

A&A's analysis is unable to consistently account for how the EPP is satisfied in languages with V-movement. If we can argue that French V-movement does not occur for EPP-related reasons but to check strong features in T, could we not also postulate that this is why V-movement occurs in other languages? V-movement was recently investigated in Biberauer and Roberts (2005) who make a clear distinction between strong tense and strong agreement features. They argue that it is strong tense features (and not strong agreement) that trigger V-movement. Thus, there is a lack of evidence in favour of A&A's split system for V-movement purposes.

### 2.1.3 ALEXIADOU (2006)

Alexiadou (2006) questions whether the EPP is a universal constraint and argues that it should instead be analysed as a parameter. Languages can have an EPP requirement but it is not obligatory. The EPP requirement is dependent on whether or not the language projects a specifier position responsible for the EPP. Alexiadou follows previous work (A&A, 1998) in arguing that both XP-movement (English) and X-movement (NSLs) can satisfy the EPP. When the language employs the former strategy, the specifier for the EPP is projected. When it employs the latter strategy, however, the specifier is not needed. The empirical motivation for arguing that the EPP is a parameter lies in the data from partial NSLs, like Finnish and Hebrew. In these languages, when the verb carries adequate nominal features, it is able to check the D-feature on T, resulting in a null subject construction. However, sometimes the verb does not carry these features and it cannot check the D-feature, requiring that an overt subject be present. In the latter case, the specifier for the EPP is projected. Thus, these languages seem to allow both strategies. Importantly, the strategies are in complementary distribution. Alexiadou does not argue that the partial NSLs can employ both strategies at the same time to satisfy the EPP. This is an important difference between these languages and French: French requires both types of movement to occur

and they are not in complementary distribution. Alexiadou also discusses some Italian data and argues that Italian differs from other Romance languages in that it sometimes projects spec-TP for EPP-related reasons but not always. This postulation is not explanatory: why would this be the case? Furthermore, if this option is available for Italian, why is it not also available for a language like French?

While Alexiadou (2006) makes the EPP requirement less strict, she nevertheless cannot account for a language that has two ways to satisfy this constraint. According to this analysis, when the verb moves to T, the EPP specifier should no longer be projected. Similarly, if the EPP specifier is projected, there seems to be no motivation for V-T movement. Thus, while this analysis is able to account for some EPP optionality, it cannot explain what happens in a language like French. Further, she argues that Italian allows optionality in its satisfaction of the EPP: sometimes spec-TP is projected. If a language allows such optionality, what is our motivation for the EPP as a constraint on the grammar? What exactly are we trying to explain by postulating this requirement? If languages can satisfy the EPP with *either* V-movement *or* filling the specifier of TP, there seems to be no motivation for doing both. Nevertheless, this is what occurs in Modern French.

## 2.2 INTERFACE ACCOUNTS

The syntactic approaches to the EPP do not work for various reasons, as mentioned in the previous section. This leads us to question whether or not the EPP is part of narrow syntax. Consequently, interface approaches to the EPP have been proposed. This section will summarize some of the main findings of these proposals. We will see that these proposals are also unable to account for French, even though the motivations behind the proposals are entirely different.

### 2.2.1 SEMANTIC ACCOUNT OF THE EPP: ROSENGREN (2002)

An interesting approach to the EPP is pursued in Rosengren (2002) who argues that the EPP is a tool used to encode semantics in the syntax. This proposal does not require any sort of feature checking but argues that the EPP is a visibility requirement in the functional domain (following previous researchers: Holmberg, 2000; Platzack, 2000). Rosengren's analysis argues that overt movement is possible in a language if it can be licensed structurally or at one of the interfaces (syntax-phonology or syntax-semantics). Her version of the EPP concerns the latter type of movement at the syntax-semantics interface. The visibility requirement is flexible: it requires that a language make the specifier of a Finite Phrase (FinP) *or* the specifier of TP visible. A language can also choose to make both or neither of the specifiers visible. If the latter option is chosen, the language is not an EPP language. Thus, this view argues that this visibility requirement (or the EPP) is not universal. In order to make the specifier visible, it must be filled with overt material. This can occur in two ways: i) move a subject to spec-TP; or ii) merge/move an expletive to spec-FinP. Interestingly, this account encodes semantics in the visibility requirement. Rosengren argues that the expletive carries a referential [R] feature that is bound to an event variable *e* (Davidson, 1980; Bierwisch, 1988). When the expletive is merged in Spec-FinP, it makes *e* visible, giving it an existential, non-specific reading. However, when the subject moves from spec-vP to spec-TP, it becomes detached from the rest of the sentence. When this happens, the subject does not bind *e*, giving the sentence a non-existential reading and the subject a specific or generic reading.

In this framework, NSLs are non-EPP languages because there is no evidence that V



movement to Fin or to T would affect the interpretation of the sentence.<sup>4</sup> If this movement occurs, we should get an existential reading in NSLs because movement to this position would make *e* visible. Rosengren argues that the V-movement in NSLs is not the cause of the specific reading of pre-verbal subjects, when they are used. Further, when a subject is found in post-verbal position in NSLs, it can either be specific or non-specific. Rosengren argues that V-movement does not account for these differences. In addition, NSLs do not show definiteness effects. However, this latter fact seems to follow from the fact that NSLs do not have expletives, thus this reading should not be possible. Rosengren argues that NSLs cannot be EPP languages because V-movement does not result in two different interpretations, non/specific and non/existential.

Following this logic, in order for an EPP-related movement to occur, it would need to have an effect on the interpretation of the sentence. She does not provide any such evidence but recent work by Lechner (2006) has argued that head movement does have an impact on the semantics. In fact, Rosengren's analysis could be extended to NSLs if we assume that the visibility requirement can be fulfilled through head movement. When V moves to Fin, it carries the referential [R] feature, binding *e* and giving the utterance an existential reading. When V moves to T, the verb does not carry this feature, thus giving the utterance a non-existential reading. This accounts for why post-verbal subjects can be interpreted as both specific and non-specific. For pre-verbal subjects, it is generally accepted that they are not found in the inflectional domain but higher in the clause, CP (Zubizarreta, 1999; A&A, 1998).<sup>5</sup> Therefore, verb movement to two distinct heads results in two interpretations at the syntax-semantics interface. Thus, Rosengren's arguments against head movement for the EPP are unwarranted. If we assume that head movement does have an impact on the interpretation of an utterance, we lose Rosengren's original motivations for postulating two independent specifier positions for semantic reasons. Instead, languages differ in regards to whether or not they make use of the specifier positions (e.g. English) for encoding semantics or the heads (e.g. NSLs). However, this analysis leads us to the same problem: how can this proposal account for French, a language that has two ways to satisfy the EPP? Even though this account makes use of the syntax-semantics interface, it assumes that a language should either have overt, visible specifiers or not. A language with mixed behaviour, French, remains unexplained.

### 2.2.2 PHONOLOGICAL ACCOUNT: LANDAU (2007)

The EPP has also been analysed from a phonological point of view. These proposals (Bobaljik, 2002; Holmberg, 2000; Landau, 2007; Takahashi, 2002) argue that the EPP is not a syntactic constraint but is, instead, part of PF. These EPP accounts argue that only phonologically overt material can satisfy the EPP and consequently, *pro* is unable to do so.<sup>6</sup> Landau (2007) argues that the EPP is a PF requirement but that it interacts with other syntactic operations, explaining why it is often viewed as a syntactic constraint. Landau (2007, p. 487) postulates the following:

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<sup>4</sup> German is also argued to be a non-EPP language, due to its ability to scramble quite easily and thus not requiring that neither spec-TP nor spec-FinP be filled. However, German is not a NSL and is unclear why it should be grouped with NSLs as non-EPP. Doing so seems to question the EPP and whether or not we need it in our grammar at all. If it does not even hold within a closely related language family, what exactly are we trying to explain? I leave this question for future work.

<sup>5</sup> This analysis argues that pre-verbal subjects in NSLs are better interpreted as CLLDs.

<sup>6</sup> Due to space restrictions, I am only going to detail one of these proposals, Landau (2007), which takes into consideration many of the main points from previous work.

(9) **P-selection**

- a. EPP is a *selectional* feature governing PF configurations.
- b. *Every* functional head may bear an EPP feature.

Importantly, this proposal does not assume that a particular element is selected. The only requirement is that some element be found in the functional domain when the spell-out is sent to PF. If not, the derivation will crash. Thus, both V-movement and merge/move of an element in the specifier of TP will be able to satisfy the [P] feature on T. However, unlike previous syntactic proposals, the EPP does not trigger movement to the functional projection. Landau argues that movement to the functional projection must occur for independent syntactic reasons. When movement to this position occurs, the [P] feature is simultaneously checked.

This analysis of the EPP builds on previous proposals (A&A, 1998) in arguing that the EPP can be checked with both head and phrasal movement. However, it differs from these proposals in assuming that the EPP itself is not a trigger for movement. This is a welcome consequence of this analysis because it is not based on particular theoretical assumptions. Instead, movement must be independently motivated by the syntax. Nevertheless, this proposal is not able to account for the Modern French data because, like previous theories, it assumes that the EPP is checked by one element in T. Even if V-movement and subject movement to the specifier of TP happen for completely independent reasons, it is unclear which element would check the [P] feature on T. In addition, it is unclear if two elements occurring in the same maximal projection with a [P] feature would cause the derivation to crash at PF. In any case, this proposal also cannot explain the occurrence of two elements in the inflectional domain. If a language only needs one overt element to appear in the inflectional projection to check the [P] feature, this proposal is unable to explain why two elements must appear in a language like French.

### 3 ALTERNATIVE ACCOUNT OF THE EPP IN FRENCH

We can see that the current proposals cannot account for the Modern French data. Interestingly, while all of these theories are based on different assumptions, they all fail to account for a language like French for one systematic reason: they assume that one syntactic relation (merge or move) is able to check the EPP. Consequently, they are unable to account for a language where both of these movements are required, i.e. French. A natural next step would be to attempt to argue that one of the movements occurs for a non-EPP-related reason. However, if we attempt to explain either X- or XP-movement using another mechanism, whether it is feature-driven (strong D, strong V, etc.), Case-based, etc., we necessarily question the notion of the EPP as a language universal. If we are able to explain French V-movement using strong V-features in T (A&A, 1998), why are these features not also available in NSLs? Similarly, if we attribute French XP-movement to Case or something of that sort, what stops us from doing the same thing in English?

This leaves us with a dilemma; it seems as though there is no way to attribute both of the French movements to the EPP.<sup>7</sup> Before I delve into my own proposal, it's important to argue against a possibility that has recently been suggested in the syntactic literature: that head-movement can occur in the phonology (Chomsky, 2000). It's important to argue against this proposal because it presents a possible solution to how the EPP can be satisfied in French. If head-movement can be attributed to PF, then it should no longer be a mechanism used for EPP satisfaction. Consequently, the only way for French to satisfy the EPP would be through expletive

<sup>7</sup> It is possible that Icelandic also employs a similar strategy (cf. Platzack, 2003). I leave this question for future work.

merge/subject move.

### 3.1 V-T MOVEMENT IN PHONOLOGY

A possible way to account for the French data is to argue that, like English and other Germanic languages, only XP-movement satisfies the EPP, as argued by previous authors including A&A (1998), Alexiadou (2006), among others. This might explain why French has expletives whereas NSLs do not. However, if we are going to follow these previous hypotheses, we still need a way to account for the V-movement: why would V-movement not satisfy the EPP in French when it is able to do so in other languages? Arguing that the verb is attracted by strong V-features in T (A&A, 1998) seems entirely unmotivated considering that NSLs have richer agreement in comparison to French in terms of person features. Spanish has 6 different agreement morphemes for person (cf. A&A, 1998) whereas French only has 3 phonologically distinct person morphemes (cf. Auger, 1994). Thus, it would remain puzzling why the verb would be attracted to move for EPP-related reasons in NSLs but for strong V-features in French. Further, as argued by Biberauer and Roberts (2005), V-movement patterns with strong tense and not strong agreement features.

A possible proposal is that there are two types of head movement: i) syntactic; and ii) phonological (Chomsky, 2000, 2001). As we are only concerned with V-T movement in this paper, I will restrict my discussion to this type of head movement. This analysis would allow us to continue to argue that V-T movement occurs in French but that it is simply not part of the syntactic derivation. If V-T movement occurs in the phonology, this would enable us to explain why French is not a NSL. In order to satisfy the EPP, something must be merged in or moved to spec-TP to check the D-feature before spell-out. V-T movement is not part of the syntax and thus cannot check the D-feature (or EPP-feature) on T. In contrast, in NSLs, V-T movement occurs in the syntax in order to satisfy the EPP (D-feature checked by nominal features on the verb). The verb has checked the D-feature so nothing needs to fill spec-TP.

This idea might be a simple way to account for how the EPP is satisfied in French but it cannot be right because it makes incorrect empirical predictions. If head movement is a PF operation, we should not expect it to have any effect on the interpretation. However, this is not borne out. Lechner (2006) presents several examples of head movement operations that affect LF, particularly semantic scope. This can be extended to V-T movement: if it occurs in the phonology, head movement should have no impact on its interpretation. Hacquard (2006; 2009) discusses aspectual differences in French morphology.<sup>8</sup> She argues that the *imparfait* is the past imperfective (10b-c) and *passé composé* is the past perfective (10a).<sup>9</sup>

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<sup>8</sup> Hacquard uses the past tense because this is the only tense that shows the difference in Aspect (perfective and imperfective) in French.

<sup>9</sup> It could also be interpreted as the past perfect but Hacquard ignores this interpretation for her analysis.

- (10) a. Jane a dansé.  
Jane has danced.pfv  
'Jane danced.'
- b. Hier matin, Jane dansait.  
Yesterday morning, Jane danced.impfv  
'Yesterday morning, Jane was dancing.'
- c. À l'époque, Jane dansait.  
In those-days, Jane danced.impfv  
'In those days, Jane used to dance.'

(Hacquard, 2009, p. 4)

In French, the perfective morphology is used to indicate a single, completed event (10a) while the imperfective can either indicate an event in progress (10b) or a habitual event (10c). Hacquard argues that *Aspect* quantifies over events (in the VP); thus, Aspect can change the interpretation of an utterance in French. If V-T occurred in the phonology, these two separate aspectual interpretations should not be possible: phonology should *not* have an impact on semantics.<sup>10</sup>

To conclude this section, there is empirical evidence *against* head movement occurring at PF:<sup>11</sup> we can get different readings after head movement (Lechner, 2006; Hacquard, 2006; 2009) which should not be possible if it a PF requirement. Thus, this proposal is rejected and we will need to account for the EPP in another way.

#### 4 PROPOSAL: XP-MOVEMENT OCCURS FOR SEMANTICS

In the previous section, we saw empirical evidence that V-T movement occurs in the syntax in French; it has an impact on the interpretation and thus, on LF. Therefore, I will argue that head movement occurs in the syntax in French like it does in other Romance languages, e.g. Spanish, Italian. The proposal I will pursue in this section is that the EPP is satisfied by a D-feature on the verb through V-T movement in French but that XP-movement must occur for semantic reasons. I will follow Chomsky (1995) and A&A (1998) in assuming that there is a strong D-feature on T that must be checked. The D-feature on the verb in French is strong enough to check the EPP (it carries person, number, Case, etc.) when it moves to T but it is not able to bind the event variable of the verb, *e*. Consequently, an expletive or subject is merged/moved to do so. This proposal will be motivated using the diagnostics in Wiltschko (1998), who argues that there are two types of pronouns in German: *D*-pronouns and personal pronouns. These pronouns differ in terms of whether or not they carry Agreement morphemes (*AgrD*) and a determiner morpheme (*D*). In her framework, personal pronouns are only phi-features (and thus Agreement) and therefore represent the category *AgrD* (and not *D*): they are unable to license an NP. *D*-pronouns, on the other hand,

<sup>10</sup> An anonymous reviewer points out that the differences in interpretation could be due to the morphology itself, carrying its own semantics. However, there is a clear difference in interpretation depending on whether or not the main verb moves to T: in the past perfective (10a), the main verb does not move to T but stays in the VP-domain whereas in the imperfect, the main verb moves to T and attaches to its inflection, giving us a different interpretation. If V-T movement occurred at PF, these differences would not be predicted. Further evidence for this is provided in Hacquard (2006) when she discusses the distinct positions of modals (cf. Bhatt, 1999) in French. Hacquard argues that modals can occupy two distinct positions in the syntax: i) above T (epistemic reading); or ii) above VP but below T (root interpretation). Thus, the utterance's interpretation changes if the modal moves or does not move above T, which is not predicted under an analysis where movement occurs at PF.

<sup>11</sup> There are also conceptual (cf. Embick and Noyer, 2001; Zwart, 2001) and theoretical implementation (cf. Matushansky, 2006) arguments against head movement at PF.

carry both *D* and AgrD and are thus able to license a NP.

Following A&A (1998), if the verb carries a *D*-feature when it moves to T, we could postulate that it carries other nominal features, i.e. a feature bundle. If the verb is able to check the *D*-feature on T, like a full pronoun, we could postulate that it carries similar features. Thus, the feature bundle associated with the pronoun is the same as the feature bundle associated with the verb on T. Following Wiltschko's system, if these elements carry the same feature bundles and there are two types of pronouns in German, it should follow that there are two types of feature bundles. I will argue that this is the difference between French and NSLs: the verb in French carries the same nominal features as the personal pronoun whereas the verb in NSLs carries the same nominal features as the *D*-pronoun. The *D*-pronoun is able to bind the event variable, *e*, because it is a full *D*. Thus, the verb can stand on its own in T and the specifier position can remain empty. Personal pronouns, on the other hand, are not full *D*s, but AgrD; they are unable to bind the event variable. Thus, the expletive is merged or the subject moves to spec-TP in order to bind the event variable in languages like French. We will see in the next section that this proposal predicts differences in the interpretation of an expletive versus a full DP construction. Before I explain the proposal, we will need to take a short detour and discuss the link between expletives and the EPP.

#### 4.1 EXPLETIVES AND THE EPP

It has long been assumed that there is a link between expletives and the EPP (Chomsky, 1982; Rizzi, 1986). However, this link may be questioned. It's possible that expletives and the EPP are entirely different phenomena and we have assumed they are related for coincidental reasons. As I argued in the previous section, we have evidence in favour of V-T movement in the syntax in French, much like its Romance counterparts. However, there is a clear difference between French and other Romance languages; the main difference is that French is not a NSL. Whether or not a language allows null subjects has also been linked to whether or not a language has expletives. Early EPP theories argued that *pro* is merged to satisfy the EPP in NSLs but that an expletive is merged to satisfy the constraint in non-NSLs when an overt subject is not present (Chomsky, 1982). Therefore, if we are going to argue for dissociation between expletives and the EPP, we will also need to dissociate the null subject parameter<sup>12</sup> from the EPP. Further, if we are able to show that the link between the null subject parameter and the EPP is not as strong as once thought, we will be able to group French with other NSLs in terms of EPP satisfaction. This would also weaken the link between expletives and the EPP: if a language with expletives, e.g. French, can be grouped with NSLs because the null subject parameter is weakened, why would it need expletives? I will argue that it needs expletives and overt subjects for EPP-independent reasons, namely, for semantics.

The validity of the null subject parameter was investigated across 104 languages in Gilligan (1987), as cited in Platzack (2003). Gilligan found that the predictions made by the null subject parameter (Rizzi, 1980, 1982, 1986) do not hold. In fact, he found that only four of the implications predicted by the null subject parameter were attested cross-linguistically:<sup>13</sup>

<sup>12</sup> This is often referred to as the *pro*-drop parameter in the literature. For consistency, I will continue to refer to *pro*-drop languages as null subject languages.

<sup>13</sup> I have only listed 2 of the 4 implications here because the others are not relevant for my analysis here (taken directly from Kučerová (in press, p. 20, example (29))). Gilligan's (1987) thesis is difficult to find because it has not been published, however, see Kučerová (in press) for a summary of the remainder of the implications.

- (11) a. If a language has null subjects in a particular environment, then it also has null non-thematic subjects in that environment.  
(Gilligan, 1987, p. 137)
- b. If a language has subject inversion in a particular environment, then it also is likely to have null non-thematic subjects in that environment.  
(Gilligan, 1987, p. 140)

French does not have null subjects and therefore it has overt expletives, as we have seen previously (as predicted by (11a)). Interestingly, French has subject inversion (12a) but it cannot have expletives in this environment (12b), as predicted by (11b):

- (12) a. *Quand partira ton ami?*  
When leave.fut.3sg your friend  
'When will your friend leave?'  
(Kayne and Pollock, 1978, p. 595)
- b. \**Quand pleura-t-il?*  
When rain.fut.3sg-t-expl  
Intended: 'When will it rain?'

These implications seem to have nothing to do with the EPP; whether or not a language has expletives is not linked to an EPP requirement. Gilligan (1987) also investigated the role of agreement in his typological study. Of the 104 languages examined, Gilligan found that 76 languages had subject-verb agreement and null subjects, e.g. Italian, 17 languages had no agreement and null subjects, e.g. Chinese, and 2 languages had agreement but no null subjects, i.e. Icelandic and French (taken directly from Platzack, 2003). Thus, there does not seem to be a direct connection between agreement and the presence of null subjects in a language.

Icelandic and French are clearly in the minority group in Gilligan's study: they have subject-verb agreement but they do not have null subjects. If they have agreement features like many NSLs, but also have expletive constructions, we might predict that French and Icelandic will pattern together with NSLs in certain constructions, but not in others. I want to explore here the idea that there may be a link between expletives, temporal anchoring and agreement.<sup>14</sup> Specifically, I will explore the idea that expletives may be able to encode a particular temporal anchoring and that agreement may be able to encode a different temporal anchoring. For this paper, we will concentrate on expletive readings. If French shares agreement features (in particular, subject-verb agreement) with languages like Italian and Spanish, we might expect that French will encode similar interpretations in expletive versus non-expletive constructions<sup>15</sup> as these languages. If agreement is truly the same operation across these languages then we might expect there to be a similarity in how these constructions are interpreted, i.e. non-expletive versus expletive constructions; this difference in interpretation should be seen through temporal anchoring. For example, an expletive construction, such as a weather construction, should encode the same temporal anchoring in NSLs and in French. Similarly, this temporal anchoring should be different than that encoded in a full DP construction. Further, these differences in temporal

<sup>14</sup> Thank you to Ivona Kučerová for discussing a possible link between temporal anchoring and movement with me. It is due to the discussion that we had about this topic that I decided to pursue this direction in this paper.

<sup>15</sup> I will focus on the language in question, French, in this section. Future work should consider whether or not Icelandic shows the same patterns.

anchoring should be different in comparison to a language that does not employ subject-verb agreement, e.g. English. Therefore, if we find evidence for the link between expletives, agreement and temporal anchoring, this would enable us to argue that the EPP and expletives are unrelated. On the other hand, if expletives and the EPP are related, we might expect expletives to behave in exactly the same way as full DP subjects: they are merged to check an EPP feature and interpretation differences are not predicted.

First, let us consider a classic NSL like Spanish. If we look at the Spanish counterpart of *it rains*, we see that no subject or expletive is required (13a). The same is true of a sentence like *he walks* (13b). Interestingly, we get a difference in interpretation. Example (13a) is interpreted as *now* whereas (13b) gives us a habitual reading. This is interesting because (13a) is a weather construction thus requiring an overt expletive in non-NSLs like English and French.

- (13) a. Llueve.  
Rain.3sg  
'It rains.' (=now)  
b. Camina.  
Walk.3sg  
'He walks.' (=habitual)

(L. Patino, p.c.)

Interestingly, Czech, a NSL that differs from classic NSLs (cf. Kučerová, in press) does not give us the same readings as the Spanish counterparts. The weather construction (14a) can mean *now* or *habitual*. The simple present construction (14b-d) is more complicated for reasons that do not concern us here. The important thing is that these constructions give us different readings, one of which is *habitual*.

- (14) a. Prší.  
Rain.3sg  
'It rains.' (=now or habitual)  
b. Jan jde.  
Jan walk.3sg  
'Jan's walking (directional).'  
Context: Jan is walking to school  
c. Jan se prochází.  
Jan refl walk.3sg  
'Jan's walking (not directional).'  
Context: Jan's walking in the park'  
d. Jan chodí.  
Jan walk.3sg  
'Jan walks.' (=not now, habitual)

(I. Kučerová, p.c.)

These examples seem to directly contradict the proposal; expletive-like constructions should be able to encode a different temporal interpretation when compared to full DP construction. The null subject examples in (14), however, show that these examples all receive the same interpretation. However, Czech also has expletives and when the expletive versions of (14) are

employed, they enforce the *now* reading (I. Kučerová, p.c.), as predicted by the current proposal: the expletive construction forces the *now* interpretation. Classic NSLs, e.g. Spanish, do not have expletives; consequently, the *now* temporal interpretation is forced in a weather construction, where expletives would be required in languages like French and English. In a language like Czech, both null subjects and expletives are possible. The null subject version of *it rains* (14a) does not force the *now* reading because it can be encoded with an expletive in the language and the expletive forces this temporal marking.

However, what happens in a language like French, where there is agreement and expletives but no null subjects? If it's the case that expletives in French are not used for EPP-related reasons, the expletive construction should force a particular temporal reading, i.e. *now*, as in NSLs and as in the expletive construction in Czech. This prediction is borne out. The weather construction (15a) must mean that *it's raining now*. This is also the case for the unaccusative expletive construction (15c). Interestingly, the simple present (15b) can mean *either* now or habitually, however, it seems that the habitual reading is more natural in this environment. The *now* reading can also be forced by using the progressive construction (15d).<sup>16</sup> Interestingly, the English constructions elicit the opposite interpretation: the expletive constructions ((16a) and (16c)) are interpreted as habitual (or at the very least, *not now*). To get the *now* interpretation, the progressive must be used (16b) or a full DP subject must be merged (16d).

- (15) a. Il pleut.  
 expl rain.3sg  
 'It rains.' (=now)  
 b. Jean marche.  
 Jean walk.3sg  
 'John walks.' (=now or habitual)  
 c. Il arrive un homme.  
 expl arrive.3sg a man  
 'There arrives a man.' (=now)  
 d. Jean est en train de marcher.  
 Jean be.3sg in progress of walking  
 'Jean is walking.'

(P. Champagne-Rousseau, p.c.)

- (16) a. It rains. (=not now)  
 b. It is raining. (=now)  
 c. There arrives a man. (=not now)  
 d. A man arrives. (=now)

Thus, there is a direct link between the temporal reading of *now* and the use of an expletive in French (and also in Czech). This also occurs in classic NSLs where an expletive might be used.<sup>17</sup> Importantly, English expletive constructions do not encode the same temporal interpretation as NSLs and French, due to its lack of agreement morphology. This follows from the idea that there

<sup>16</sup> This is interesting but not particularly relevant to this paper; thus, I leave it for future work. I concentrate here on the expletive reading.

<sup>17</sup> Note that I am not implying that this means there is a null pronoun or null expletive in this position. I am simply saying that these are expletive-like constructions.



is link between expletives, agreement and temporal anchoring. As English has very minimal agreement, the temporal reading of *now* in English expletives in the simple present is not predicted. To get this reading, the morphology needs to be manipulated (e.g. into the present progressive as in (16b) or a full DP must be merged, as in (16d)).<sup>18</sup>

To sum up this section, I have shown using similar constructions from both NSLs and French that the constructions elicit a different reading depending on whether the construction is *expletive-like*, i.e. weather verb constructions, or whether a full DP is present or inferred. The main finding here is that expletive-like constructions are temporally marked as *now*. This does not seem to be EPP-related as the EPP does not predict there to be any influence on the semantics. Under the EPP analysis, expletives are merged to satisfy a feature in the inflectional domain and no interpretation differences are predicted. Thus, I will reject this hypothesis and argue that they are unrelated, at least in languages with rich agreement.

In French, the EPP is checked through verb movement to T. However, we saw in this section that expletive constructions give us a different temporal reading than full DP constructions. How is this encoded in the grammar? The proposal is that verb movement is enough to satisfy the EPP in French but it is not enough to license the temporal differences between expletive and non-expletive constructions. This proposal will appeal to *event semantics* (Davidson, 1967, 1980) and will be discussed in Section 4.3. However, before explaining the proposal, we will need to argue that the verb movement in French is not the same as the verb movement in NSLs. In NSLs, no expletive is needed to get the *now* reading. The difference in verb movement lies in the D-feature. The next section will argue that the verb carries a different D-feature in French in comparison to NSLs. This will enable us to explain the interpretation differences that have been demonstrated in this section.

## 4.2 PRONOUNS

I argued in the previous section that expletives and the EPP should be dissociated. Instead, in languages with rich agreement, expletives are used to encode a *now* temporal reading. In NSLs, expletive-like constructions also encode a *now* temporal reading but expletives are not needed. Why? I will argue in this section that the difference lies in the type of D-feature carried by the verb, following previous work on pronouns by Wiltschko (1998). I follow A&A (1998) and Chomsky (1995) in assuming that there is a strong D feature on T that must be checked by a nominal element. In the traditional EPP theory (Chomsky, 1982, 1995), this feature can only be checked by a DP or expletive in the specifier of TP, both of which are argued to be nominal. These elements carry nominal features such as Case, number, person, etc. A&A, on the other hand, argue that the verb itself carries nominal features, which are able to check the D-feature on T in languages with rich agreement. If the verb carries nominal features, e.g. person, number, Case, etc., which enable it to check the D-feature on T, like a full DP or expletive, we might expect the verb and other nominal elements to carry similar nominal features. We can talk about these features in terms of bundles. Consequently, if all of these elements carry similar nominal features that enable them to check the D-feature, we could postulate that they all carry similar bundles of (nominal) features. Further, if this is the case, we might expect them to behave similarly.

Wiltschko (1998) argues that there are two types of pronouns in German: personal pronouns

<sup>18</sup> Precisely how this works in the semantics is a topic for future work. Other types of manipulations, e.g. adverbs (Now, it rains), will also need to be examined.

and *D*-pronouns, which have different distributions in the language. To account for these differences in distribution, she argues that personal pronouns and *D*-pronouns have different internal syntactic structures: *D*-words (and other determiners) can be broken down into a bound determiner morpheme (*D*) and agreement morphemes (*AgrD*). Personal pronouns, however, are simply phi-features and thus represent the category *AgrD* (and not *D*). Wiltschko argues that overt NPs must be licensed by a *D*-head: an NP position can only be projected with *D*-words because they are made up of both *D*s and *AgrD*s; personal pronouns are *AgrD*s and thus cannot license the NP position.

Importantly for the analysis being pursued here, Wiltschko argues that *D*-words and *R*-expressions pattern the same. They are both subject to the Binding Principle C and cannot be bound. Personal pronouns on the other hand, they can be bound and are subject to the Binding Principle B. Thus, if *D*-words pattern together with *R*-expressions, we could argue that they behave as *R*-expressions and thus represent a **fully inflected D** category. They must be free everywhere. However, personal pronouns can be bound by another variable and are subject to Binding Principle B. This indicates that they are **not a fully inflected D** category. They cannot be bound in their domain but can be bound outside of their domain.<sup>19</sup>

If we adopt the view that the verb carries the same feature bundles as its pronominal counterparts and there are two types of pronouns (and thus, two types of pronominal feature bundles) in a language like German, it should also be possible for there to be two types of pronominal feature bundles on the verb. This proposal can be extended to the T-domain in languages with rich agreement. Both types of feature bundles on the verb are able to check the *D*-feature on T through V-T movement, satisfying the EPP. French differs from NSLs in terms of what type of pronominal feature bundle the verb carries. If the feature bundle can stand on its own, it behaves like *D*-pronoun: it carries both agreement and a *D*. If the feature bundle cannot stand on its own, it behaves like a personal pronoun: it carries only agreement and is thus only a bundle of phi-features. In Spanish and other NSLs, the verb carries the same feature bundle as a *D*-pronoun; it cannot be bound. However, in French, the verb carries the feature bundle of a personal pronoun and thus, can be bound. The binding element is a subject or expletive in spec-TP.<sup>20</sup> We will see in Section 4.3 that whether the *D*-feature is bound by an expletive or by a full DP subject predicts differences in interpretation, as discussed in Section 4.1.

Before moving on to the semantic discussion, a similar proposal by Platzack (2003) should be addressed. Platzack argues that agreement is an argument and links agreement features to verb raising and null subjects. Specifically, he argues that agreement is merged in the syntax as an actual argument thus allowing it to check thematic roles. He argues that this agreement cannot survive past spell-out on its own and must adjoin to another element. Verb movement is a welcome consequence of his analysis, whether the language is NSL or not. The verb must move to T in order to reach PF and thus attaches to a phonologically overt head. Thus, V-T raising is not related to null subjects. To account for French and Icelandic, languages with V-movement but no null-subjects, Platzack (2003) follows Borer (1989) in assuming that there are two types of agreement: anaphoric and pronominal. Thus, when agreement is anaphoric, it is subject to Binding Principle A and when it is pronominal, it is subject to Binding Principle B. Platzack argues that NSLs have pronominal agreement, requiring that agreement be free whereas French and Icelandic have anaphoric agreement requiring that it be bound.

<sup>19</sup> We will assume here that a possible binding domain is a phase, i.e. vP or CP.

<sup>20</sup> I follow Zubizarreta (1999), A&A (1998), among others, in assuming that an overt subject in NSLs is in an A'-position above TP and thus outside the binding domain.

Platzack's analysis is similar to the one I am pursuing here but it does not predict the differences in semantic interpretation that I have shown here. In addition, I am not postulating that agreement be merged in a separate phrase: it is the verb that carries the relevant nominal features, as in A&A (1998). Following the current Minimalist Program, agreement can be checked through c-command; consequently, there doesn't seem to be any motivation for merging agreement features as their own projections if only for thematic roles. Further, Platzack does not explain how the EPP is checked in these languages. He argues that it is possible that there is an EPP-feature in T but this is not necessarily the reason for movement.

### 4.3 EVENTS AND SITUATIONS<sup>21</sup>

An obvious question to ask is *why* the verb would carry a different D-feature in NSLs in comparison to French. The answer to this is *event semantics* (Davidson, 1967, 1980). Event semantics (Davidson, 1967) has become an important part of semantic theory and languages employ events in different ways. In French, this seems to be done through aspectual morphology. The imperfective distinguishes sub-events or continuous events whereas the perfective indicates a complete event (one event), as shown in Hacquard (2006). Event semantics, while useful, does not show us the whole picture. Situation semantics (Barwise and Perry, 1983; Kratzer, 1989) differs from event semantics in that it is used to encode *time* (Giorgi and Pianesi, 1997). As shown above, there is a different temporal marking in French expletive constructions in comparison to full DP constructions, at least in the present tense. I showed above that French expletive constructions encode the *now* temporal marking. As mentioned, there is no imperfective and perfective distinction in the present tense in French. Thus, how are these temporal differences encoded? In a recent talk, Ramchand and Svenonius (2013) argue that events and situations (and propositions) are encoded in the syntax. They postulate that the event domain in the syntax is VP but the situation domain is TP. Thus, it is within the TP domain that time is encoded. The authors argue that events are inaccessible in the TP-domain, meaning that the event must become a situation at some point in the derivation. Ramchand and Svenonius argue that this occurs through *Aspect* (Reichenbach, 1947; Klein, 1994; Giorgi and Pianesi, 1997).<sup>22</sup>

The point at which the event becomes a situation occurs through syntactic operations in TP (I. Kučerová, p.c.), specifically through V-T movement. In NSLs, V-T movement is sufficient to both check the EPP *and* bind the event variable on the verb, yielding the correct interpretation differences between expletive-like constructions (*now* reading) and imperfective constructions. In these languages the verb carries the same feature bundle as a D-pronoun, and thus cannot be bound; it can stand on its own. In French, on the other hand, the verb's feature bundle is only sufficient to satisfy the EPP; it must be bound by something else. Thus, spec-TP must be filled to bind the event variable. As there are two possible binders, expletives and full DPs, two separate interpretations are predicted. When the expletive is merged to bind the event variable, it will create a *situation* and give the utterance a *now* reading. The full DP subject, on the other hand, is moved to spec-TP to bind the event variable, yielding the possibility of a *habitual* reading. Thus,

<sup>21</sup> Note that this is a working hypothesis that came about due to a lengthy discussion with Ivona Kučerová (based on her joint work with B. Copley). Future work will consider this hypothesis in more detail and consider how exactly the semantics would be derived.

<sup>22</sup> Above the situation domain, there are propositions. The authors argue that this is where context has an effect. Situations will need to become propositions during the derivation. They argue that this occurs through Finite; the proposition domain is CP. This is not particularly relevant for our discussion so I will not go into any more detail here.

temporal anchoring is encoded by the binder of the event variable in the inflectional domain. These differences in interpretation are contrasted with expletive and non-expletive constructions in languages like English, where the expletive *cannot* yield a *now* reading (e.g. *It rains*) nor can the simple present with a full DP (e.g. *John runs*).

To conclude this section, it has been argued that there are two types of pronominal feature bundles on the verb in languages with rich agreement: i) the same feature bundle as a D-pronoun; and ii) the same feature bundle as a personal pronoun. In NSLs, the verb carries the former type of D-feature and is thus able to stand on its own. In French, the verb carries the latter type of feature bundle and must be bound. The verbal domain is also the domain of event semantics and the verb encodes an *event*, which must be bound by the inflectional domain. In NSLs, the D-feature is strong enough to bind the event variable, whereas in French, it is not. An expletive or a full DP subject must be found in the specifier of TP to bind the event variable. Whether an expletive or a full DP is merged thus predicts differences in interpretation: the former always encodes a *now* temporal marking.

## 5 CONCLUSIONS

The aim of this paper was to provide revised accounts of the EPP in order to account for Modern French: a language that allows both X- and XP-movement to the T-domain. This paper was divided into two sections. In the first section, I presented in detail previous theories of the EPP and explained why each of these theories could not explain the French data, whether they were syntactic (Chomsky, 1981, 1982, 1995; A&A, 1998; Alexiadou, 2006), phonological (Bobaljik, 2002; Holmberg, 2000; Landau, 2007; Takahashi, 2002) or semantic (É. Kiss, 2001; Rosengren, 2002). I argued that these accounts all fail to account for the French due to one systematic reason: they all assume that one element is enough to satisfy the EPP. These theories are unable to account for a language that must do both. In the second section of the paper, I proposed that French satisfies the EPP via head movement (V-T), like NSLs. I rejected a possible proposal that head movement might occur at PF in French. In order to account for XP-movement in French, I argued that while V-T movement is able to check the D-feature on T, it is unable to bind the event variable. I argued, following Wiltschko (1998), that there are two distinct types of pronouns that can be extended to the T-domain. Thus, French and NSLs differ in their ability to bind the event variable via head movement but not in their ability to check the EPP. This proposal predicts that there should be differences in whether an expletive is merged in spec-TP or whether a full DP subject is moved to this position. This prediction was borne out: expletive constructions have a different temporal marking (*now*) in comparison to constructions with full DP subjects.

Future work will need to look at the proposal in more detail and show precisely how the French sentences are derived, both in the syntax and at LF. Constructions involving stylistic inversion, locative inversion and complex inversion will also need to be examined more closely. How is the temporal marking encoded in these constructions? Future work will also need to consider Icelandic data and determine whether or not this proposal can account for expletive and non-expletive constructions in this language. In addition, future work will also need to look at other so-called *EPP-features* (or edge feature, Chomsky (2008)) in order to determine how other functional domains, i.e. CP, might play a role.

## REFERENCES

- Alexiadou, A. (2006). Uniform and non-uniform aspects of pro-drop languages. In P. Ackema, P. Brandt, M. Schoolermmmer and F. Weerman (Eds.), *Arguments and agreement* (pp. 127-58). Oxford: Oxford University Press.
- Alexiadou, A., and Anagnostopoulou, A. (1998). Parametrizing AGR: Word order, V-movement and EPP Checking. *Natural Language & Linguistic Theory*, 16, 491-539.
- Auger, J. (1994). Pronominal Clitics in Québec Colloquial French: A Morphological Analysis. PhD dissertation, University of Pennsylvania.
- Barbosa, P. (2009). Two kinds of subject *pro*. *Studia Linguistica*, 63(1), 2-58.
- Barwise, J., and Perry, J. (1983). *Situations and Attitudes*. Cambridge: MIT Press.
- Bhatt, R. (1999). *Covert modality in non-finite contexts*. Doctoral dissertation, University of Pennsylvania.
- Biberauer, T., and Roberts, I. (2005). Subjects, Tense and verb-movement in Germanic and Romance. Talk given at the 5<sup>th</sup> Asian GLOW Meeting, Jawaharlal Nehru University, Delhi.
- Bierwisch, M. (1988). On the grammar of local prepositions. In M. Bierwisch, W. Motsch and I. Zimmermann (Eds.), *Syntax, Semantik und Lexikon*, (Studia Grammatica XXIX, pp.1-65). Berlin: Akademie Verlag.
- Bobaljik, J.D. (2002). A-chains and the PF-interface: Copies and “covert” movement. *Natural Language & Linguistic Theory*, 20, 197-267.
- Bonomi, A. (1997). Aspect, Quantification and when-clauses in Italian. *Linguistics and Philosophy*, 20, 469-514.
- Borer, H. (1989). Anaphoric Agr. In O. Jaeggli and K. Safir (Eds.), *The Null Subject Parameter* (pp. 69-109). Dordrecht: Kluwer Academic Publishers.
- Bošković, Z. (2002). A-movement and the EPP. *Syntax*, 5, 167–218.
- Bury, D. (2003). Phrase structure and derived heads. Unpublished doctoral dissertation, University College London.
- Chomsky, N. (1981). *Lectures on Government and Binding*. Dordrecht: Foris.
- Chomsky, N. (1982). *Some concepts and consequences of the Theory of Government and Binding*. Cambridge: MIT Press.
- Chomsky, N. (1995). *The Minimalist Program*. Cambridge: MIT Press.
- Chomsky, N. (2000). Minimalist inquiries: The framework. In R. Martin, D. Michaels, and J. Uriagereka (Eds.), *Step by step: Essays on minimalist syntax in honor of Howard Lasnik* (pp. 89–155). Cambridge: MIT Press.
- Chomsky, N. (2001). Derivation by phase. In M. Kenstowicz (Ed.), *Ken Hale: A life in language* (pp. 1-52). Cambridge: MIT Press.
- Chomsky, N. (2008). On Phases. In R. Freidin, C. P. Otero, and M.-L. Zubizarreta (Eds.), *Foundational Issues in Linguistic Theory: Essays in Honor of Jean-Roger Vergnaud* (pp. 133-166). Cambridge: MIT Press.
- Davidson, D. (1967). The logical form of action sentences. In N. Rescher (Ed.), *The Logic of Decision and Action* (pp. 81-95). Pittsburgh: University of Pittsburgh Press.
- Davidson, D. (1980). *Essays on actions and events*. Oxford: Clarendon Press.
- É. Kiss, K. (2001). The EPP in a topic-prominent language. In P. Svenonius (Ed.), *Subjects, expletives, and the EPP* (pp. 107–124). Oxford: Oxford University Press.
- Embick, D., and Noyer, R. (2001). Movement operations after syntax. *Linguistic Inquiry*, 32, 555-598.

- Emonds, J. (1978). The Verbal Complex V'-V in French. *Linguistic Inquiry*, 9(2), 151-175.
- Frascarelli, M. (2007). Subjects, topics and the interpretation of referential pro. An interface approach to the linking of (null) pronouns. *Natural Language & Linguistic Theory*, 25, 691-734.
- Gilligan, G.M. (1987). *A Cross-Linguistic Approach to the Pro-Drop-Parameter*, Doctoral dissertation, University of Southern California.
- Giorgi, A., and Pianesi F. (1997). *Tense and Aspect: From Semantics to Morphosyntax*. New York: Oxford University Press.
- Grohmann, K.K., Drury, J., and Castillo, J.C. (2000). No more EPP. In R. Billerey and B.D. Lillehaugen (Eds.), *Proceedings of the 19<sup>th</sup> West Coast Conference on Formal Linguistics* (pp. 153-166). Somerville: Cascadilla Press.
- Hacquard, V. (2006). *Aspects of Modality*, Doctoral dissertation, MIT.
- Hacquard, V. (2009). On the Interaction of Aspect and Modal Auxiliaries. *Linguistics and Philosophy*, 32, 279-312.
- Holmberg, A. (2000). Scandinavian stylistic fronting: How any category can become an expletive. *Linguistic Inquiry*, 31, 445-83.
- Holmberg, A. (2005). Is There a Little Pro? Evidence from Finnish. *Linguistic Inquiry*, 36(4), 533-64.
- Jouitteau, M. (2007). The Brythonic reconciliation: From verb-first to generalized verb-second. In J. van Craenenbroeck and J. Rooryck (Eds.), *Linguistic variation yearbook* (Volume 7, Number 1, pp. 163-200). Amsterdam: John Benjamins.
- Kayne, R., and Pollock, J.-Y. (1978). Stylistic Inversion, Successive Cyclicity, and Move NP in French. *Linguistic Inquiry*, 9(4), 595-621.
- Klein, W. (1994). *Time in Language*. London: Routledge.
- Kratzer, A. (1989). An investigation of the lumps of thought. *Linguistics and Philosophy*, 12, 607-53.
- Kučerová, I. (2012). T-Extension Condition. *Canadian Journal of Linguistics*, 57(3), 387-426.
- Kučerová, I. In press. The Syntax of Null Subjects.
- Landau, I. (2007). EPP Extensions. *Linguistic Inquiry*, 38, 485-523.
- Lechner, W. (2006). An interpretative effect of head movement. In M. Frascarelli (Ed.), *Phases of Interpretation* (pp. 45-70). Berlin: Mouton de Gruyter.
- Lenci, A., and Bertinetto, P. (2000). Aspect, Adverbs and Events: Habituality vs. Perfectivity. In J. Higginbotham, F. Pianesi and A. Varzi (Eds.), *Speaking of Events* (pp. 265-287). Oxford: Oxford University Press.
- Matushansky, O. (2006). Head Movement in Linguistic Theory. *Linguistic Inquiry*, 37(1), 69-109.
- McCloskey, J. (1996). Subjects and subject positions in Irish. In R.D. Borsley and I. Roberts (Eds.), *The syntax of the Celtic languages: A comparative perspective* (pp. 241-283). Cambridge: Cambridge University Press.
- Platzack, C. (2000). The computational system as a minimal feature driven device and the tripartite TP/VP-hypothesis of the universal clause. Ms.
- Platzack, C. (2003). Agreement and Null Subjects. In A. Dahl, K. Bentzen and P. Svenonius (Eds.), *Nordlyd: Proceedings of the 19<sup>th</sup> Scandinavian Conference of Linguistics* (Volume 31(2), pp. 326-355). University of Tromsø Working Papers: Septentrio Academic Publishing.
- Pollock, J.-Y. (1989). Verb Movement, Universal Grammar and the Structure of IP. *Linguistic Inquiry*, 20(3), 365-424.
- Ramchand, G. and Svenonius, P. (2013). Deriving the Functional Hierarchy. Talk presented at

- GLOW 36, Lund University, April 4.
- Reichenbach, H. (1947). *Elements of Symbolic Logic*. New York: Macmillan.
- Rizzi, L. (1980). Wh-movement, negation and the pro-drop parameter. Ms. Scuola Normale Superiore, Pisa.
- Rizzi, L. (1982). *Issues in Italian Syntax*. Dordrecht: Foris.
- Rizzi, L. (1986). Null objects in Italian and the theory of pro. *Linguistic Inquiry*, 17, 501-557.
- Rosengren, I. (2002). EPP: A syntactic device in the service of semantics. *Studia Linguistica*, 56(2), 145-190.
- Smits, R.J.C. (1989). *Eurogrammar. The Relative and Cleft Constructions of the Germanic and Romance Languages*. Dordrecht: Foris.
- Takahashi, D. (2001). Scrambling and empty categories. In M.C. Cuervo, D. Harbour, K. Hiraiwa, and S. Ishihara (Eds.), *Formal Approaches to Japanese Linguistics 3* (Volume 41 of *MIT Working Papers in Linguistics*, pp. 47-58). Cambridge: MIT Working Papers in Linguistics.
- Wiltschko, M. (1998). On the Syntax and Semantics of (Relative) Pronouns and Determiners. *Journal of Comparative Germanic Linguistics*, 2, 143-181.
- Zubizarreta, M.-L. (1999). Word Order in Spanish and the Nature of Nominative Case. In K. Johnson and I. Roberts (Eds.), *Beyond Principles and Parameters: Essays in memory of Osvaldo Jaeggli* (pp. 223-250). Dordrecht: Kluwer Academic Publishers.
- Zwart, C. (2001). Syntactic and phonological verb-movement. *Syntax*, 4, 34-62.