

1 Introduction

Past participle agreement (PPA) in the Romance languages is well known for its overt correlation with movement. The contrast in (1), from French, is typical of the pattern: the participle shows agreement with the feminine plural object only if it has undergone leftward movement out of the VP.

- (1) a. Jean n'a jamais fait(*es) ces sottises
 Jean NEG.have.3SG never done.M.SG/*F.PL these stupid things.F.PL
 'Jean has never done these stupid things'
- b. Jean ne les a jamais fait(es)
 Jean NEG THEM.CL have.3SG never done-F.PL
 'John has never done them.'
- (adapted from Belletti 2006)

French

The original analysis of data like these, due to Kayne (1989), is that there is a dedicated agreement head above the VP but below the canonical position of the subject, and that PPA is licensed if and only if the target DP moves through the specifier of this head (a Spec-Head configuration). The absence of agreement in (1a) therefore follows because the target DP does not move out of the VP; in (1b), in contrast, the target DP moves out of the VP and through the specifier of the agreement head, triggering PPA. Partly based on its success in explaining the data in (1), this analysis was subsequently generalized to a full-fledged theory of agreement, the Spec-Head model (Kayne 1989; Pollock 1989; Chomsky 1991, 1993), which holds that all agreement is contingent on movement of the target through the specifier of an agreement-triggering head.

In the decades following Kayne's work, however, there has emerged extensive evidence that agreement is not generally confined to a Spec-Head configuration, but rather may operate *at a distance*, without movement of the agreement target into the specifier of the agreement trigger. Evidence of this sort has been presented on the basis of data in languages including Basque (Etxepare 2006, Preminger 2009), Chukchee (Dahlstrom 1995), Itelman (Bobaljik & Wurmbrand 2005), Icelandic (Sigurðsson 1996, 2008; Boeckx 2010), Tsez (Polinsky and Potsdam 2001), Hindi-Urdu (Boeckx 2004; Bhatt 2005; Keine 2013), Kashmiri (Bhatt 2005), Passamaquoddy (Bruening 2001), English (Chomsky 2000, 2001). These data, in conjunction with independent conceptual arguments (see, e.g., Chomsky 2000, 2001), have led to widespread acknowledgement that agreement may indeed operate at a distance, and to a corresponding rejection of the Spec-Head model (but see Koopman 2006).

Granting that agreement is possible at a distance, the appealingly simple analysis of French PPA sketched above breaks down, and the data become much more mysterious. To a first approximation, the challenge is this: if there is an agreement licensing head in the French vP, and if agreement is, generally speaking, licensed at a distance, without movement, why is PPA conditioned on movement of the internal argument? While the challenge posed by these data has not been lost on the research community (see especially D'Alessandro and Roberts 2008), I know

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of no existing analysis in terms of agreement at a distance that can capture the French data (see also Section 5).

To complicate matters further, if we expand our domain of investigation very slightly beyond the languages Kayne investigated (French, Standard Italian), there are PPA data that do appear to receive a simple treatment on the agreement at a distance model. Thus in Neapolitan, pre-19th-century Italian, some dialects of Occitan, some dialects of Gascon, and some dialects of Catalan (Loporcaro 2016), PPA obtains with both internal arguments that have evacuated the VP as well as those that remain *in situ*. I illustrate the less well-known pattern – agreement with an *in situ* object – with an example from Neapolitan.

- (2) addʒə kottə/*kwottə a pastə
 have.1.SG cookPTCP.F/cookPTCP.M the.F.SG pasta.F.SG
 ‘I’ve cooked the pasta’ *Neapolitan*
 (Loporcaro 2016: 806)

This behavior is expected if there is an agreement-licensing head, say at *v*, in all clauses, that always targets the highest internal argument, provided agreement can operate at a distance.

In fact, even in those languages usually taken to clearly instantiate the Spec-Head pattern, such as Standard Italian, French, and Mainland Scandinavian, it is possible to get PPA with *in situ* internal arguments in some passive/unaccusative sentences. This is well known in Italian, where it is the default pattern (see (3a)), but to my knowledge has not been observed previously in French, where PPA obtains with a demonstrably *in situ* object of a passive/unaccusative verb in stylistic inversion contexts (see (3b)). In Mainland Scandinavian, the availability of PPA with *in situ* objects appears to be governed by the status of the higher expletive, with the locative expletive *der* licensing PPA, but not the third singular neuter expletive *det* (see (3c,d)), as originally observed by Christensen and Taraldsen (1989).

- (3) a. Sono entrat-**i**/***o** **due ladri** dalla finestra.
 are.PL entered-M.PL/*M.SG two robbers from the window
 ‘Two robbers entered from the window’ *Italian*
 (Belletti 2006: ex. 34c)
- b. Il faut que aient été repeintes **trois chaises**.
 it requires that have.SBJ.PL been repainted.PL three chairs
 ‘It’s necessary that there have been three chairs repainted.’ *French*
- c. **Det** er nett kom-**e**/***ne** **nokre gjester**
 it is just come.N.SG/*M.SG some guests.PL
- d. **Der** er nett kom-**ne**/***e** **nokre gjester**
 there is just come.PL/*N.SG some guests.PL
 ‘There have just arrived some guests.’ *West Norwegian*
 (Christensen & Taraldsen 1989: 58)

PPA is thus considerably more complicated than the familiar Spec-Head data suggest. First, there are languages where it behaves as expected if agreement operates at a distance, obligatorily targeting the highest DP in the relevant domain. Let’s call these languages, represented by Neapolitan, PPA *in situ* languages. Second, there are languages that follow the more familiar Spec-Head pattern documented by Kayne. Even in these languages, however, there are exceptions to the Spec-Head pattern that resemble true agreement at a distance.

Based on the data seen so far, we can establish the following desideratum for a theory of PPA. First, it must address the fundamental question of why PPA is coupled to movement in a variety

of languages and constructions, granting that agreement is intrinsically licensed at a distance. Second, it must explain why PPA is sometimes decoupled from movement, generally in PPA *in situ* languages and in some specific passive and unaccusative clauses in movement-based PPA languages.

In the remainder of this paper, I develop a theory that meets these desideratum, with the following basic logic. PPA with *in situ* objects in French, Standard Italian, MSc is blocked because these languages do not make dependent-case marked DPs accessible to agreement (Bobaljik 2008; Preminger 2014). The addition of movement into the derivation licenses the otherwise impossible option of agreeing before the external argument is merged, avoiding the case-blocking effect. This captures the correlation between movement and PPA. The data in (3) follows similarly: when there is a higher expletive that can induce dependent case, PPA is blocked, but when that expletive is absent or not a case competitor, PPA obtains. Finally, I propose that PPA *in situ* languages differ in that they make dependent case accessible to agreement, so that PPA obtains in all clauses, irrespective of movement or the status of the expletive.

In Section 2, I detail the architecture that will underlie the account and present the major innovation of the analysis, an economy condition governing the interaction between agreement and movement. Section 3 comprises the account of the core data in movement-based PPA languages. In Section 4, I show how the account extends to the data in (3), as well as to PPA *in situ* languages. Finally, in Section 5 I discuss the leading modern competitor to the present account, the theory of D’Alessandro and Roberts (2008).

2 Proposal

2.1 Architectural Preliminaries

My proposal depends on some background conclusions concerning the nature and structure of the syntactic derivation, which I lay out here. I will be taking for granted Preminger’s (2014) *Obligatory Operations* (ObOp) framework, as well as some ancillary assumptions concerning *Case* and *Agree*. The central premise of the ObOp framework is that each primitive syntactic object H is associated with a (potentially empty) set of operations $O = \{o_1, o_2, \dots\}$, along with structural conditions $C = \{c_1, c_2, \dots\}$ that govern when the operations can apply. If, in the course of the derivation, condition c_i on operation o_i on head H is met, then operation o_i must apply. If condition c_i is never met, however, o_i never applies and the derivation continues.

ObOp has important consequences for both of the main syntactic operations that will be relevant to my proposal, *Agree* and *Merge*. Concerning *Agree*, ObOp is usually coupled with some independent assumptions about Case that I will also adopt, so I begin by spelling them out. First, I will assume the Dependent model of case (Marantz 1984; Bobaljik 2008), and in particular (i) that case is valued configurationally in the syntax (Preminger 2014: Ch.9) according to the rules in (4), (ii) that unvalued case features do not crash the derivation, in keeping with general ObOp logic, and (iii) that case is valued instantaneously when the relevant syntactic configuration is achieved.

(4) **Case valuation:**

- a. Lexical Case: Given the configuration [H DP], where H is a lexical case assigner, value the case feature on DP.
- b. Dependent Case: Given the configuration [DP₁ [... [... DP₂ ...]]], where DP₁ and DP₂ have unvalued case features, value the case feature on DP₂.

I also adopt the related hypothesis that φ -*Agree* is case discriminating (Bobaljik 2008; Preminger

2014): case valuation determines whether or not a given DP is accessible to φ -*Agree*, with accessibility parameterized across languages according to the *Moravcsik Hierarchy* (see (5)). The most restrictive languages make only those DPs with unmarked case accessible for agreement, while some languages also make DPs with dependent case accessible, and some even tolerate agreement with DPs bearing lexical case.

(5) **Case Accessibility:**

Accessibility to *Agree* is determined according to the *Moravcsik Hierarchy*:
unmarked case » *dependent case* » *lexical/oblique case*

With these preliminaries in place, we can define the (at-a-distance) *Agree* operation as below. In keeping with the present framework, I define *Agree* to comprise both an operation component (o_i) and conditions on its application (c_i).

(6) *X-Agree* at head H

- a. o_i : copy the value of feature X on phrase YP onto H
- b. c_i : apply o_i at H iff there is some YP with feature X such that:
 - (i) Locality: H c-commands YP and there is no ZP c-commanded by H and asymmetrically c-commanding YP that bears feature X
 - (ii) Accessibility: YP is (case) accessible to H

The ObOp logic then dictates that if a head H is associated with an agreement operation *X-Agree*, this operation must take place if the conditions on its application are met. If these conditions fail to be met, for example because the only possible target of *Agree* is not case-accessible, the derivation proceeds without crashing. I refer the reader to Bobaljik (2008) and Preminger's (2014) work for more information and accept these principles as given.

The ObOp logic also has important consequences for the operation of *Merge*. The account will crucially depend on the assumption that every derivation is based on a *finite input set* of syntactic objects, the numeration, which is recursively assembled into a complex syntactic object. In this way, the syntactic content available to *Merge* is pre-determined at the start of every derivation. With this in place, the effects and consequences of ObOp on *Merge* are perhaps easiest illustrated with *wh*-movement (Preminger 2014: 10.1.3), so I consider here the derivation of a basic *wh*-question. Let us also grant that *wh*-movement proceeds through all Spec(CP) positions along its path, so that the derivation of (7a) contains at least the two steps in (7b). While the second step of movement, to the matrix CP, is well motivated on the assumption that the interrogative C attracts the *wh*-phrase, it has always been a challenge to motivate the first step of movement to the non-interrogative embedded CP.²

- (7) a. What did John say that Sue bought?
 b. [_{CP} What [did John say [_{CP} ~~what~~ [that Sue bought ~~what~~]]]]

In the ObOp framework, we can capture both movement steps in a uniform and parsimonious way by assuming that all C heads, interrogative and not, are associated with the operation *Merge-wh*, defined in general below.

(8) *Merge-X* at head H

- a. o_i : merge (a projection of) H with an YP bearing the feature X
- b. c_i : apply o_i at H iff there is some YP with feature X such that:

²See Pesetsky and Torrego 2007 for a principled analysis that does not involve ObOp.

- (i) External merge: YP is present in the numeration, but not in the syntactic structure containing *H*, or
- (ii) Internal merge: *H* c-commands YP and there is no ZP c-commanded by *H* that both asymmetrically c-commands YP and bears the feature *X*

In the case of the embedded clause in (7), ObOp therefore dictates that the non-interrogative C must merge with the *wh*-phrase in its scope. In examples where there is no *wh*-phrase present in the structure, however, the *Merge-wh* operation simply goes untriggered. Because untriggered operations are unproblematic, the derivation converges, as desired. We can therefore safely assume that all C heads have the same operations associated with them, thereby capturing the otherwise hard-to-motivate intermediate movement in the same way as movement to the interrogative CP.³

The ObOp logic readily extends to other *Merge* operations as well. One case that will be relevant for the remainder of the paper is the canonical EPP effect – that Spec(TP) must be filled in the course of the derivation – so I take some time here to discuss it. For now, I focus on three cases that any theory of canonical EPP effects must be able to explain: (i) in transitive clauses, the subject must raise to Spec(TP); (ii) in passive/unaccusative clauses with an internal DP argument, either the internal DP argument must raise to Spec(TP) or an expletive must be merged in Spec(TP); (iii) in clauses without any DP arguments, an expletive must be merged in Spec(TP).⁴ For expository purposes, let's assume that expletives are (i) selected as part of the numeration, and (ii) merged directly into Spec(TP); we will revise both assumptions in the course of the paper, but for now I adopt them as given.

- (9) a. John has ~~John~~ talked to Mary.
- b. * \emptyset has John talked to Mary.
- (10) a. There have arrived three men
- b. Three men have arrived ~~three men~~.
- c. * \emptyset have arrived three men.
- (11) a. It seems like John is upset.
- b. * \emptyset seems like John is upset.

The first two facts follow immediately from the present framework. Beginning with transitive clauses, let us grant that first that independent factors rule out expletive merger at Spec(TP), at least in languages that do not allow transitive-expletive constructions. I discuss this in more detail in the next section and simply accept it for now. Since the subject is accessible to the *Merge-D* operation at T, ObOp dictates that it must be merged in Spec(TP); leaving Spec(TP) empty would violate the ObOp principle that syntactic operations must apply if they can, capturing (11a). The contrast in (10) is minimally different in that passive/unaccusative clauses allow expletive merger (again, I discuss this in much more detail in the next section); the optionality of object promotion then reduces to whether or not an expletive is present in the numeration. If it is, ObOp logic dictates that it must be merged in Spec(TP); if the subject is instead promoted, the

³In contrast, if we assume, following Chomsky (2000, 2001), that uninterpretable features crash the derivation, the treatment of long-distance *wh*-movement requires that we posit two varieties of non-interrogative C: one that bears the movement-triggering feature, and which is used in exactly those cases where there is a higher interrogative C, and one that does not bear the movement-triggering feature, and which is used in all other cases.

⁴There are of course many more complicated structures that together comprise the full array of EPP effects, including transitive expletives, cases where non-DPs occupy Spec(TP), etc. For expository purposes, I will not analyze these cases here, although we will see later in the paper how the present analysis extends to these and other complicated, less idealized examples.

numeration will not be exhausted and the derivation will crash. If an expletive is not present in the numeration, the accessible internal argument DP must be merged in Spec(TP), by the same ObOp logic as in the transitive case.

Capturing the third fact requires a minor refinement of the theory. In particular, nothing we have said so far rules out a derivation of (11) where there is no expletive present in the numeration. In such cases, the ObOp logic dictates that the derivation should tolerate an empty Spec(TP), since there is nothing to satisfy *Merge-D*. This is incorrect. To rule out examples like this, I will adopt an alternative view of expletive merger, due to Bobaljik and Wurmbrand (2012: 387), namely that expletive insertion takes place independently of the numeration. Explicitly, I assume that expletives need not be present in the numeration to be inserted, and moreover that expletives may always be inserted to satisfy a *Merge* feature, up to interpretability.⁵ This has two important effects. First, it correctly blocks a derivation like the impossible version of (11): at the stage where TP has been constructed, the option to merge an expletive will always be available, so, in the absence of a lower DP that can be Merged in Spec(TP), an expletive will always be merged there.^{6,7}

Second, as pointed out by Bobaljik and Wurmbrand (2012), most theories of derivational economy normally take the numeration to be the essential domain of comparison: derivation *x* may be compared to derivation *y* from the perspective of derivational economy just in case *x* and *y* arise from the same numeration. Exempting expletives from this logic facilitates the comparison of derivations that differ only in the presence of an expletive, which Bobaljik & Wurmbrand exploit to capture a number of otherwise puzzling scope-trapping effects in expletive sentences.

Finally, there is a conceptual rationale for not requiring expletives be present in the numeration. On the Minimalist view of the derivation that I have been implicitly working under here, the syntactic derivation is responsible for assembling the basic linguistic objects set aside in the numeration into an expression encoding a complex meaning legible at the conceptual-intensional (CI) interface. Unlike all other linguistic objects, however, expletives do not factor into this output: they are by assumption semantically vacuous, inserted for purely formal syntactic reasons, and are hence not legible at the CI interface. Separating them from the semantically contentful elements of the numeration is just a way of formally encoding this difference in the framework itself.

I will therefore accept from here on that expletives are always accessible to be merged in the structure. We can summarize the ObOp treatment of the three core EPP facts above as follows. In transitive clauses, independent principles rule out expletive merger in Spec(TP), so the subject must always be merged here, per the ObOp logic. In passive/unaccusative clauses with an internal DP argument, *Merge-D* on T can either be satisfied by merging this DP, or by merging an expletive. Finally, in clauses without a DP argument, the option of merging an expletive is always available and so must be taken, per the ObOp logic. This captures the essential behavior that normally falls under the ‘EPP’ heading.

We have now seen that the ObOp treatment of *Merge* yields straightforward analyses of *wh*-movement and EPP effects. Both analyses relied on specific heads coming pre-specified from the lexicon with *Merge* features that dictate how they behave in the derivation. This raises an important question: are these cases somehow special, or are the available merger operations at

⁵This differs from how Bobaljik & Wurmbrand execute this idea, as they assume expletives are instead inserted at PF. The present version is, as best I can tell, compatible with all of their conclusions.

⁶I assume independent principles govern the choice between the *it* and *there* expletives in English, for example.

⁷Note that the account of (9) and (10) remains unchanged on this view: in (9), we continue to assume that independent principles block expletive insertion in transitive clauses; in (10), either an expletive may be inserted or the accessible internal argument may be raised.

a given head pre-specified in the lexicon, like the types of available *Agree* operations at a given head are usually assumed to be? For the remainder of this paper, I will take the former view, that the possible *Merge* operations available at *H* are indeed pre-specified, so that each syntactic head is associated in the lexicon with the set of possible operations that it may trigger. All cases of *Merge* and *Agree* are thus governed by the same logic.

It's important to point out that this does not require replicating syntactic structure in the lexicon, a common criticism of other varieties of feature-driven merge. Specifying the merge operations at head *H* merely serves to define the domain of operations available at that head, but gives no information about the order they apply in, which operations apply in which derivation, etc. In particular, I do not assume any predetermined ordering on operations, or any requirement that a given operation take place beyond those imposed by ObOp. The operations that take place in the derivation and their order are therefore governed purely by concerns of interpretability, e.g., as encoded in a type theory on semantic interpretation, and by the ObOp logic. This is crucially different than the theory of feature driven merge developed by Gereon Müller (e.g., Müller 2010), where merge features are pre-arranged on a stack, and where feature discharge must proceed in a top-down fashion by popping features off that stack.

Before moving on, I illustrate a simplified derivation to highlight the key aspects of the system. For convenience, I will hereafter encode the operations available at a given head in terms of the features below, and say that a given feature is discharged by the associated operation. My notation for merge features is borrowed from Müller (2010).

- (12) a. Agree features: [X: _], *Agree* with a YP bearing X
 b. Merge features: [◦X◦], *Merge* with a YP bearing X

Limiting attention to the heads *V*, *v*, *T*, *C*, and assuming for simplicity that these are the only heads in the clausal spine, we arrive at the feature specification in (13) for English: *V* has at least a feature selecting its complement; *v* has a [◦D◦] feature for merging the external argument and various merge features for attracting *A'*-elements (assuming it is a phase); *T* has a canonical EPP feature and a feature for triggering ϕ -agreement; *C* has features for attracting various *A'*-elements.

- (13) a. *V*: [[◦D◦],...] c. *T*: [[◦v◦],[◦D◦], ϕ :_]
 b. *v*: [[◦V◦],[◦D◦],[◦wh◦],[◦Top◦],...] d. *C*: [[◦T◦],[◦wh◦],[◦Top◦],...]

Example (14) is then derived as follows, with the order of operations determined by concerns of interpretability. First, *V* merges with *what*, satisfying its [◦D◦] feature. Next *v* merges with VP, satisfying its [◦V◦] feature, then the external argument, satisfying its [◦D◦] feature, then finally with the internal argument *what*, satisfying its [◦wh◦] feature. *T* is then merged in the structure, satisfying its [◦v◦] feature, and attracts the external argument *Mary*, satisfying its [◦D◦] feature. Finally, *C* merges with TP, satisfying [◦T◦], and with *what*, satisfying [◦wh◦].

- (14) a. What did Mary buy?
 b. [_{CP} what [C [Mary [T [what [Mary [_v [buy what]]]]]]]]

2.2 Proposal

Recall the essential challenge raised by the PPA data in the introduction: on the one hand, there is a clear correlation between movement and PPA that does not follow on the long-distance theory of *Agree* (at least not without additional stipulations); on the other hand, the correlation is not perfect, raising issues for the Spec-Head theory (see the discussion D'Alessandro and Roberts

2008 provide). My proposal is that this conflict teaches us that the correlation between *Agree* and movement is neither as rigid as assumed under the Spec-Head theory, nor as *ad-hoc* as assumed by theories that posit an “EPP”-property on some but not all probes. Specifically, I propose that the syntactic derivation is governed by the basic economy principle in (15), and that this encodes the precise degree of correlation between *Agree* and movement evidenced by the PPA data.

(15) **Feature Maximality (FM):**

Given head H with features $[F_1] \dots [F_n]$, if XP discharges $[F_i]$, XP must also discharge each $[F_j]$ that it is capable of.

The core idea is that once a phrase XP has been selected as the target for a syntactic operation originating at head H , the relationship between H and XP must maximize to include all possible additional operations originating at H capable of targeting XP . This principle subsumes and extends the “free rider” property of *Agree* (Chomsky 1995, 2001; Bruening 2001; Rezac 2013), and is closely related to the (slightly different) notions of *Multitasking* feature economy proposed by Pesetsky and Torrego (2001) and Van Urk and Richards (2015), respectively.

While in the previous literature (15) is most commonly invoked in the context of competing/interacting *Agree* relationships, it will in this paper be used to encode my hypothesis concerning the interaction of *Agree* and movement. It is therefore worth exploring a simple example illustrating how (15) works before moving on. To this end, suppose H is a head bearing an *Agree*-triggering feature, say $[\varphi: _]$, and an merge feature, say $[\circ D \circ]$. By (15), if $[\varphi: _]$ on H is discharged via *Agree* with a φ -bearing target DP , then DP must also discharge $[\circ D \circ]$, that is, DP must be merged with (a projection of) H . This has the effect that *Agree* obligatorily triggers *Move* if the head bearing the probe feature has an undischarged merge feature. Alternatively, suppose that $[\circ D \circ]$ on H is discharged by merging a new DP in the structure. Since *Agree* is conditioned on c-command by the head containing the probe feature, a first-merged DP is not eligible to discharge the $[\varphi: _]$ on H , so only the merge feature is discharged. In such a scenario, a lower DP may then discharge the probing feature on H without undergoing obligatory movement, since the merge feature has already been discharged.

I now argue that (15) encodes precisely the degree of correlation between *Agree* and movement that is manifest with PPA. This both explains the formerly puzzling PPA data and supports the existence of a principle like FM in the grammar.

3 Capturing Movement-Based PPA

In this section, I show how the economy constraint in (15), when combined with the framework assumptions laid out in the previous section, captures the correlation between PPA and movement in Standard Italian, French, and Mainland Scandinavian. The main data that will be accounted for are: (i) the cases where PPA is blocked with *in situ* objects, and (ii) the cases of movement-facilitated PPA. I set aside all cases of PPA *in situ* until the next section.

The discussion here will critically depend on the hypothesis that φ -*Agree* is case discriminating (Bobaljik 2008; Preminger 2014), and in particular that languages showing movement-based PPA are alike in limiting φ -*Agree* to DP s unmarked for case:

(16) **Case Accessibility** (Italian, French, Mainland Scandinavian):

In Standard Italian, French, Mainland Scandinavian, only unmarked case is accessible to φ -*Agree*

3.1 Transitive clauses, *in situ* objects

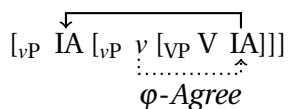
I begin by considering the behavior of transitive clauses with *in situ* objects. PPA is strictly impossible in movement-based PPA languages in this context. In Mainland Scandinavian, this is complicated by the fact that in at least some languages (Swedish, some dialects of Norwegian; Svenonius & Larson 2012), the perfect participle is distinct from the passive participle, and never inflects. Nonetheless, the fact remains that PPA is impossible with the *in situ* object.

- (17) a. Ho mangiat-**o**/***a** la mela.
 have.1.SG eaten-M.SG/*F.SG the apple.F.SG
 'I have eaten the apple' *Standard Italian*
 (D'Allessandro & Roberts 2008)
- b. Jean n'a jamais fait(***es**) ces sottises
 Jean NEG.have.3SG never done-.M.SG/*F.SG these stupid things.F.PL
 'Jean has never done these stupid things' *French*
 (Belletti 2006)
- c. Jens har skut-**it**/*-**et** ett lejon.
 Jens has shot-SUPINE/*-3.SG.N a lion
 'Jens has shot a lion.' *Swedish*
 (Christensen and Taraldsen 1989)

Adopting the usual structural assumptions from the PPA literature – that PPA is triggered by a φ -probe on the head that introduces the external argument (Kayne 1988; Chomsky 1995; Belletti 2001; Chomsky 2001; Roberts & D'Allessandro 2008; a.o.) – this behavior is predicted on the present theory. As discussed above, at the point where v is merged in the structure, it has an undischarged $[\circ D \circ]$ feature for introducing the external argument, an undischarged $[\varphi: _]$ feature, and various undischarged features for attracting A' -elements. Setting aside the A' -features for now, there are two derivational options available at this point: (i) discharge $[\varphi: _]$ via *Agree* with the internal argument; (ii) discharge $[\circ D \circ]$ by merging the external argument.

Because I am assuming no inherent ordering, both operations are equally available, so let's assume first that option (i) is chosen, *Agree* with IA to discharge $[\varphi: _]$. By (15), because IA is also capable of discharging $[\circ D \circ]$, it must, so *Agree* triggers movement in this case. While this sequence of operations is syntactically licensed, the corresponding derivation crashes at LF. To see why, let τ denote the type that vP must be to combine felicitously with higher projections. Since v is responsible for introducing the external argument, it must therefore be type $\langle e, \tau \rangle$. Granting that DP movement is interpreted via λ -abstraction (Heim and Kratzer 1998), movement of IA to Spec(vP) does not saturate the type e argument slot of v , so that the resulting vP will be type $\langle e, \tau \rangle$. After movement of IA, the vP is therefore still an unsaturated predicate that needs an external argument to combine with higher functional heads. However, the $[\circ D \circ]$ feature on v was exhausted by merger with IA, so no further DP can be merged. The derivation therefore crashes at LF, so that option (i) is ruled out on interpretive grounds.

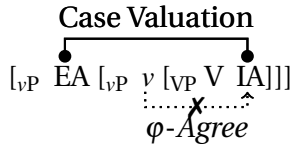
- (18) *Agree* w/ IA ($[\varphi: _]$); *Move* IA ($[\circ D \circ]$); crash



Let's see what happens with option (ii), which instead features merger of the external argument (EA), discharging $[\circ D \circ]$, as the first step. Because *Agree* is contingent on asymmetric c-command, merger of EA does not discharge $[\varphi: _]$ on v . We might therefore expect that v finds IA

and undergoes *Agree* with it, producing unattested PPA with an *in situ* object. Crucially, however, the presence of EA renders IA inaccessible to φ -*Agree*: recall that on the model of case adopted here, merger of EA triggers immediate valuation of the case feature on IA, rendering IA inaccessible to φ -*Agree*, by hypothesis. In other words, while IA is local enough to trigger φ -*Agree*, it is blocked from doing so by the case feature induced by the presence of EA. Finally, while φ -*Agree* is ruled out, this derivation is otherwise convergent, given that the ObOp framework tolerates derivations where *Agree* fails to take place because the conditions on its application have not been met. We therefore correctly derive the surface form for a basic transitive clause.

(19) Merge EA ([φ : _]); Case valuation; φ -*Agree* blocked; ✗ PPA



It's worth pausing at this point to review the work that *Feature Maximality* does in the context of the wider framework. One way to summarize our conclusions is to say that by directly tying *Agree* to movement in the case of v , Feature Maximality induces a competition between *Agree* with the internal argument and *Merge* with the external argument. Because the external argument must be merged for interpretive purposes, it always “wins” this competition, with the effect that φ -*Agree* is obligatorily delayed until after the external argument has been merged. This is the essential role of Feature Maximality. The absence of PPA is then a side effect of this delay, reflecting the familiar observation from Bobaljik and Preminger’s work that φ -*Agree* is often allergic to case-marked DPs.

One point that this discussion makes clear is that v ’s role as an argument introducer is fundamental to blocking PPA: if there was no semantic need to merge an argument in $\text{Spec}(\text{vP})$, derivation (i) from above, where the internal argument moves to $\text{Spec}(\text{vP})$ concomitant with PPA, might be expected to converge.⁸ As I will now argue, this is exactly the state of affairs that obtains with passive and unaccusative clauses, deriving the second core class of PPA data from Section 1.

3.2 Passive/unaccusative predicates

I turn my attention now to the behavior of PPA with passive/unaccusative predicates in movement-based PPA languages. Discussion of the cases of PPA *in situ* in passive/unaccusative clauses will be postponed to Section 4 so for now the crucial data are as follows. In French, PPA is directly tied to object promotion, giving rise to the contrasts in (20) and (21) with passives and unaccusatives, respectively.

(20) a. Il a été fait(*es) **deux erreurs**.
 it has been made.(*F.PL) two errors
 “There have been three errors made”

b. **Trois erreurs** a été fait*(es).

French

(21) a. Il est mort(*es) **trois sauterelles**.
 it is died.(*PL) three grasshoppers
 ‘There died three grasshoppers.’

⁸Alternatively, if v had more than one [\circ D \circ] feature, we would expect that it could both trigger movement of IA and merger of EA. None of the languages under consideration seem to allow this option, although we might expect to find it cross-linguistically, e.g., in languages where there is overt evidence for multiple A-specifiers. I set aside this interesting extension for now.

- b. **Trois sauterelles** sont mort*(es).

French

Mainland Scandinavian is the same, except that some languages allow an intermediate promotion structure with passives, as in (22c). I illustrate with a passive from Swedish and an unaccusative from West Norwegian.

- (22) a. Det har blivit skriv-**et**/*na **tre böker** om detta.
EXPL have been written-N.SG/*PL three book.PL on this
'There have been three books written on this'
- b. Det har blivit **tre böker** skriv-**na**/*et om detta
EXPL have been three book.PL written-PL/*N.SG on this
- c. **Tre böker** har blivit skriv-**na**/*et om detta.
three book.PL have been write.PRTP-PL/*N.SG on this
'Three books have been written on this'

Swedish

- (23) a. Det er nett kom-**e**/*-**ne** **nokre gjester**.
IT is just arrived.SG/*PL some guests.PL
'There have just arrived some guests.'
- b. **Gjestene** er nett kom-**ne**/*-**e**.
guests-the is just arrived.PL/*SG
'The guests have just come.'

Western Norwegian

In all cases, PPA is tied to movement. Italian, which has PPA *in situ* as the standard pattern in passives/unaccusatives, is discussed in the next Section.

3.2.1 Feature composition at passive/unaccusative v

Unsurprisingly, the treatment of these facts depends on our assumptions concerning the feature makeup of passive/unaccusative v . It turns out that the ObOp framework commits us to some very particular assumptions in this domain: that expletives are merged low in the structure, at v , as argued for by, e.g., Richards (2005), Deal (2009), Wu (2018), but contra Chomsky (2000; 2001), and hence that all varieties of v , transitive, passive, and unaccusative, are endowed with a *merge-D* feature. Because these conclusions will be essential to the remaining argument, I take some time here to spell out how the ObOp framework gives rise to these conclusions.

To this end, recall that with transitive v , a [\circ D \circ] feature was independently needed to introduce the external argument. Assuming passive and unaccusative v s do not introduce an external argument, there is no semantic prerequisite for postulating such a feature in these cases. We are thus left to ask whether [\circ D \circ] is present at all on passive/unaccusative v .

This question is intimately linked with the related question of where expletives are introduced in the structure. In particular, if we assume, following e.g., Chomsky (2000; 2001), that expletives are always merged directly in Spec(TP), we are led to the conclusion that passive/unaccusative v has an optional [\circ D \circ] feature, at least in some cases. This can be illustrated with the contrast between (22a) and (22b) above. The internal argument of a passive clause with an expletive subject may appear *in situ* as well as in an intermediate position to the left of the participle, which I take to be Spec(v P). In (22a), it follows that v must not have an [\circ D \circ] feature, as it would obligatorily attract the internal argument; but in (22b) it follows that v must have this feature, to facilitate short movement across the participle. If we assume that v is a phase⁹ in all its incarnations (Sauerland

⁹Note that I eschew the weak/strong phase distinction sometimes invoked in these contexts.

2003; Legate 2003), we can make the same argument in French, where passive/unaccusative internal arguments are obligatorily *in situ* with expletive subjects (see (20a), (21a)). This indicates that v need not have $[\circ D \circ]$. However, passive/unaccusative internal arguments can nonetheless front to subject position in the absence of an expletive (see (20b), (21b)), necessitating an intermediate A-movement step to Spec(v P) and hence a $[\circ D \circ]$ feature on v .¹⁰

In contrast, if we adopt the main competing alternative theory in the expletive literature, that expletives are merged in Spec(v P) (at least in languages without transitive expletives; see Richards 2005; Deal 2009; Wu 2018 for modern analysis in this vein), then $[\circ D \circ]$ is obligatory on all varieties of v . Cases with an *in situ* object (cf. (22a), (23a)), involve, on this view, expletive merger in Spec(v P), exhausting $[\circ D \circ]$ and blocking movement of the internal argument to Spec(v P). Cases with a promoted internal argument (cf. (22b), (23b)) conversely involve object movement to Spec(v P), exhausting $[\circ D \circ]$. Cases with intermediate object promotion (cf. (22b) and its English counterpart) involve, following Deal (2009), moving the object to Spec(v P), then introducing the expletive in the specifier of the head hosting *be*, which we can likewise take to be a variety of unaccusative v and hence itself capable of introducing an expletive.¹¹

- (24) a. *In situ* object:
 ... [_{vP} EXPL [_{vP} v ... [V IA]]]
 b. Full promotion:
 [_{TP} IA [_{TP} T [... [_{vP} ~~IA~~ [_{vP} v [... [V ~~IA~~]]]]]]]
 c. Partial promotion:
 ... [_{beP} EXPL [_{beP} v_{BE} [_{vP} IA [_{vP} v [... [V ~~IA~~]]]]]]]

Faced with the choice between these two theories of expletive insertion (and the concomitant choices they force for the feature makeup on v), we have strong empirical and conceptual cause to prefer the second. Empirically, this option is supported by a variety of arguments that expletives are indeed merged in Spec(v P), a full rendering of which would take us too far astray (but see Richards 2005; Deal 2009; Wu 2018 for extensive discussion and arguments). At the conceptual level, this optional allows us to maintain a uniform feature distribution across all varieties of v . Most crucially, however, permitting optional features, as is required on the high-merge theory of expletives, presents a serious challenge to ObOp, and must therefore be avoided if we are to maintain the essential hypothesis that syntactic operations are obligatory. The problem is this: allowing optional $[\circ X \circ]$ features at head H is equivalent to assuming that merge is optional at H , i.e., that it need not take place even if the relevant structural conditions are met, as we can always

¹⁰The intermediate position is for some reason not available in French (Svenonius 1998).

- (i) a. Il a été (*trois journalistes) arrêté *(trois journalistes).
 EXPL has been (three journalists) arrested three journalists
 ‘There have been three journalists arrested’
 b. Trois journalistes ont été arrêté.
 three journalists have been arrested
 (Svenonius 1998: 1)

¹¹Two additional questions remain about this case (i) why such movement is not possible in French, and (ii) why it is obligatory in English. Concerning (i), descriptively speaking it appears that French *be* is not capable of introducing an expletive, forcing expletive insertion at the lower v head and keeping the expletive low. This should ideally be derived, or at least confirmed independently. For the English case, one option is to say that passive v cannot introduce an expletive, but only truly unaccusative v 's can, including the one associated with *be*. I set these two complications aside for the remainder of the paper.

choose to leave out the relevant feature. This is equivalent to rejecting the ObOp hypothesis, at least for merge features. If we do so, we are at best left with a weaker split system where some but not all syntactic operations are obligatory. The strongest version of ObOp, then commits us to the low-merge theory. I will therefore adopt this view for the remainder of the paper, along with the corollary that all varieties of v have a $[\circ D \circ]$ feature.

A final comment is in order concerning expletive merger in Spec(TP). We have so far seen arguments that expletives *can* be merged in Spec(v P), but not that they *must* be merged here, in exclusion to Spec(TP). In the languages under consideration in this paper, there is a very simple argument to this end: in transitive clauses, where interpretation dictates that Spec(v P) must be filled by the external argument, expletives are impossible. This is not predicted if Spec(TP) is an available position for expletive merger. We are therefore led to conclude not only that expletives *can* be merged in Spec(v P), but that they *must*, at least in languages without transitive expletives. As for explaining *why* this is the case, the present system does not offer any novel insight, as best I can tell. There is a large literature that tries to reduce the (un)-availability of transitive expletives to other facts about the syntax of a given language (Jonas 1996; Rosengren 2000; Koenemann 2001; Vangsnes 2002), although Henry and Cottell's (2007) discovery of a dialect of English with transitive expletives casts doubt on these efforts. Because it is not central to the results of this paper, I will not explore this issue further, simply assuming here that expletives must be merged in Spec(v P) in languages without transitive expletives.

(25) **Low-merge theory of expletives:**

In languages without transitive expletives, expletives must be merged in Spec(v P).

(26) **Uniformity of feature distribution:**

All incarnations of v have the same feature makeup: $\{[\circ D \circ], [\varphi: _], [\circ A' \circ], \dots\}$

3.2.2 Back to PPA

We are now prepared to address the main issue of this section – the distribution of movement-based PPA in passive/unaccusative clauses. Let's begin with the case where the internal argument is promoted to Spec(TP). PPA is obligatory in this scenario in both French and MSc, as we have seen (see (20b), (21b), (22c), (23b)).

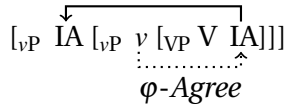
As in the transitive case, we focus on the stage of the derivation directly after merger of v . At this point, there are two relevant undischarged features on v , $[\varphi: _]$ and $[\circ D \circ]$. Assuming as before that there is no implicit order on the operations, there are two derivational options at this junction: (i) discharge $[\varphi: _]$ by agreeing with IA, or (ii) discharge $[\circ D \circ]$ by merging an expletive.

3.2.3 Object promotion

Suppose first that we take option (i). In this case, Feature Maximality dictates that IA must move to Spec(v P): IA has been targeted for an operation at v , and hence all possible operations at v targeting IA must be carried out, resulting in merger of IA at Spec(v P). The logic so far is identical to the transitive case. The crucial difference, however, is that the present derivation does not crash at LF: passive/unaccusative v are not semantically specified to introduce an external argument, so there is no type mismatch when we move IA to Spec(v P). The derivation therefore proceeds unfettered.¹²

¹²In the appendix, I present a syntax and semantics for the passive that formally encodes this, but for present purposes all that matters is that passive v is not derivationally constrained to introduce an external argument, like transitive v .

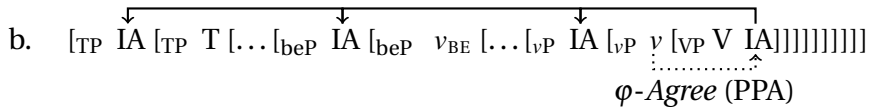
(27) *Agree*(v , IA) ($[\phi: _]$), *Move* IA ($[\circ D \circ]$); ✓ PPA



From this point, the IA can then be attracted to Spec(TP) (potentially via an intermediate Spec(beP)) or an expletive can be merged in the Specifier of the higher v associated with *be*, as in (22b). In either case, the key observation is that PPA is obligatory: the ϕ -feature on v has an accessible goal, and so it must target it by the ObOp logic, with corresponding obligatory movement to Spec(v P).

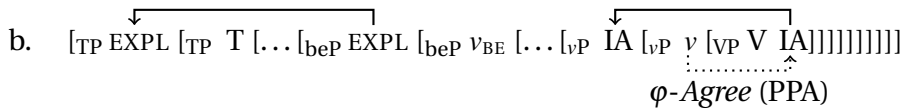
(28) Full promotion (cf. (20b), (21b), (22c), (23b)):

a. Tre böcker har blivit skrivna.



(29) Partial promotion (cf. (22b))

a. Det har blivit tre böcker skrivna.



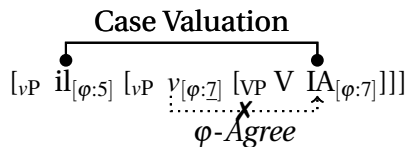
This account can be extended straightforwardly to Italian, where promoted objects of passives and unaccusatives also trigger obligatory PPA.

- (30) a. **Due ladri** sono entrat-**i/*o** dalla finestra.
 two robbers are entered-M.PL/*M.SG from the window
 ‘Two robbers entered from the window’
 (Belletti 2006: ex. 34c)
- b. **alcuni sindaci** sono stati arrestat-**i/*o**
 some.M.PL mayors.M.PL are.PL been.M.PL arrested.M.PL/*SG
 ‘Some mayors were arrested’

3.2.4 *in situ* objects

Derivational option (ii) – discharge $[\circ D \circ]$ on v first – proceeds much as in the transitive case, except that an expletive rather than an external argument is merged in Spec(v P). PPA is thus predicted to be precluded just in case the expletive induces case valuation on the lower DP, granting that dependent case is not accessible to *Agree* in the languages under consideration.

(31) *Merge* EXPL; Case assignment; ϕ -*Agree* blocked; ✗ PPA:



Both French and most Mainland Scandinavian dialects use the default third singular pronoun as an expletive in the passive/unaccusative contexts we are considering. In French, this is the third singular masculine pronoun *il*, and in Mainland Scandinavian the third singular neuter pronoun *det*. Because case is only marked in these languages on pronouns, and because pronouns are

generally barred from appearing as the associate to an expletive, it is not possible to directly confirm that these expletives are case competitors. That said, on their non-expletive uses, the third person singular default pronoun in both languages is clearly a case competitor, inducing dependent (accusative) case on its co-arguments.

- (32) a. Il *(m')a mordu (*je).
 3.SG.M/N CL.1.SG.ACC-has bitten 1.SG.NOM
 'He/it bit me.' French
- b. Det slog mig/*jag
 3.SG.N bit 1.SG.ACC/*1.SG.NOM
 'It bit me' Swedish

Let us therefore adopt the null hypothesis that the expletive and non-expletive version of the pronoun have the same case properties, so the expletive in these languages is a case competitor. PPA is therefore predicted to be blocked with *in situ* internal arguments in the presence of expletive subjects, as observed in (20a), (21a), (22a), (23a). This pattern holds across all Mainland Scandinavian languages with the third person neuter expletive *det*. I provide an additional Norwegian example below.

- (33) Det har vorte skriv-**e**/***ne** **mange bøker** um dette.
 EXPL has been written-PL/*SG many book.PL on this
 'There have been many books written on this' West Norwegian
 (Holmberg 2001: 86)

Summarizing, we have arrived at two main conclusions in this section. First, our particular perspective on the ObOp framework commits us to the view that expletives are merged in Spec(vP) in languages without transitive expletives, which has been extensively and independently argued for in the literature. Second, adopting the low merge view of expletives, the present theory readily predicts the distribution of PPA in passive and unaccusative clauses across the languages thus considered. When the expletive is merged in Spec(vP), it triggers case assignment on the internal argument, thus blocking PPA. If, however, IA moves to Spec(vP), PPA is triggered obligatorily. From this point, an expletive can either be merged in the higher v_{BE} , as in some Mainland Scandinavian languages, or IA can be promoted to subject position.

3.3 Optional PPA with clitics/*wh*-phrases

The final instance of movement-based PPA that we will consider is the optional PPA that is triggered by clitic movement and, in French at least, by *wh*-movement. The languages in question differ slightly in this domain. To begin, at least some French speakers optionally allow PPA with both fronted *wh*-phrases and clitics.¹³

- (34) a. Jean ne **les** a jamais fait(**es**)
 Jean NEG THEM.CL have.3SG never done-F.PL
 'John has never done them.'
- b. **Les sottises** [que Jean n'a jamais fait(**es**) *t*]...
 the stupid things.F.PL that Jean NEG.have.3SG never done-.F.SG

¹³Note that data of this sort are limited to transitive clauses, for independent reasons: in passive/unaccusative clauses, the definiteness effect rules out pronominal internal arguments, blocking clitic movement across the participle. Likewise, with *wh*-objects PPA is associated with a specificity effect, so that those *wh*-phrases that trigger PPA must be interpreted as specific (Déprez 1998). They are therefore barred from appearing with expletives.

'The stupid things that John has never done...'
(adapted from Belletti 2006)

(French)

Standard Italian is similar, except that third person clitics trigger obligatory agreement, while *wh*-phrases never trigger PPA.

- (35) a. **L'ho** **vist-a/*o**.
CL.F.SG-have.1.SG seen-F.SG/*M.SG
'I have seen it.'
- b. **Ci/vi** **ha** **vist-e/i/o**.
CL.1.PL/CL.2.PL has.3.SG seen.-F.PL/M.PL/M.SG
'He has seen us/you (pl)'
- c. **Quanti** **libri** **hai** **lett-o/*i?**
how.many.M.PL books.M.PL have.2.SG read-M.SG/*M.PL
'How many books have you read?'

Standard Italian

(Belletti 2006)

Mainland Scandinavian is more complicated. By Holmberg's generalization, object pronouns never shift across the participle, so we cannot check whether PPA is possible in such cases. In Swedish and some dialects of Norwegian, there are two forms for the participle: (i) the passive participle, which appears in passives, and (ii) the *supine*, which appears in the perfect. Only the passive participle inflects for number and gender, i.e., the participle that appears in transitive clauses is invariant. This makes it impossible to test whether *wh*-movement can trigger PPA in these dialects. In passive/unaccusative clauses, A-movement of the internal argument triggers PPA, so we would need to test whether *wh*-movement of an *in situ* internal argument triggers PPA. But PPA is independently ruled out here in French by the definiteness effect (see fn. 13), so we have no reason to expect it to be possible in MSc. Likewise, while *wh*-phrases in transitive object position might be expected to trigger PPA, transitive participles are invariant. The only cases where we might expect to find PPA, then, is with *wh*-movement in those dialects with a transitive participle that can be inflected. These dialects are less common, and to the best of my knowledge this is not possible, although I have no clear data on the matter.

The present theory extends to these cases of PPA as well with minimal modification. For the sake of discussion, let's focus on the French pair in (36).

- (36) a. Jean n'a jamais fait ces sottises.
Jean NEG.have.3.SG never done.M.SG these silly things
- b. Les sottises [que Jean n'a jamais fait(es)] ...
the silly things that Jean NEG.have.3.SG never done.M.SG/F.PL
'The silly things that Jean has never done ...'

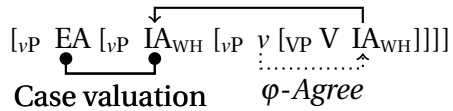
Setting aside PPA, the only pertinent difference between the derivation of (36b), whose object has undergone A'-movement, and its counterpart in (36a), whose object is *in situ*, is that in (36b) the [A'] feature on ν has a possible target to attract. The extra degree of freedom afforded by applying the [A'] feature exactly licenses the type of PPA we observe in such cases.

In particular, consider the stage of the derivation of (36) where ν has just been merged in the structure. In addition to the two derivational options possible in the simple transitive case, we now have the additional option of discharging the [A'] feature on ν and attracting the object.

Let's see what happens if we take this option. According to Feature Maximality, we must ask which of the other features on ν can be discharged by the object, then discharge them all.

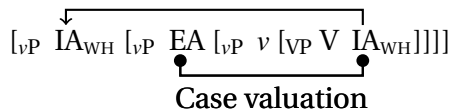
Recall that ν has at least the features $[\circ D \circ]$, $[\circ A' \circ]$, $[\varphi: _]$. Assume for now that the object cannot discharge both merge features simultaneously (I return to this issue below), so that discharge of $[\varphi: _]$ is the only other available option, and hence must be taken. It follows that A' -movement of the object to $\text{Spec}(\nu P)$ is accompanied by φ -*Agree*, triggering PPA. The external argument can then be merged, exhausting $[\circ D \circ]$. The derivation converges, yielding (36a).

(37) *Merge IA* ($[\circ A' \circ]$)/ φ -*Agree IA*; *Merge EA* ($[\circ D \circ]$); assign case; \checkmark PPA:



Alternatively, if upon merging ν we decide to first merge the external argument, discharging $[\circ D \circ]$, the object is assigned dependent case, and is inaccessible to φ -*Agree*. The subsequent discharge of $[\circ A' \circ]$ will then not extend to the discharge of $[\varphi: _]$, so A' -movement will not be accompanied by φ -*Agree*, correctly deriving (37b) without PPA. Finally, the option where we chose to discharge $[\circ D \circ]$ first by attracting the object is blocked on the same lines as in the simple transitive case (see (18)).¹⁴

(38) *Merge EA* ($[\circ D \circ]$); assign case; *Merge IA* ($[\circ A' \circ]$); \times PPA:



The account extends trivially to clitics on the hypothesis that they are attracted into the TP-domain by a special feature, call it $[\circ \text{clo}]$ (Sportiche 1996; Wurmrband 2015), present on all phase heads and on the attracting head in the TP domain. The activation of this feature then licenses the optional PPA observed in French and Italian, exactly as above.

Recall that we have assumed the condition that the object is blocked from discharging both $[\circ D \circ]$ and $[\circ \text{wh} \circ]$ on ν simultaneously. Before moving on, I'd like to show that this can be motivated and formally encoded in a principled manner. In particular, I propose the following principle on syntactic derivations.

(39) **Syntactic Operations are non-overlapping:**

A given instance of *Merge* or *Agree* may discharge at most one $[\circ X \circ]$ or $[X: _]$ feature, respectively.

To motivate (39), it's helpful to think about the role that features play in our system. Recall from Section 2 that features are for us a notational aid for encoding the syntactic operations that head H is associated with. As suggested by its heading, (39) amounts in these terms to the hypothesis that each syntactic operation must be non-overlapping: the derivation can be conceived as comprising a finite sequence of discrete steps, each of which takes an input and produces an output. If a H is associated with two merge operations, say *Merge-X* and *Merge-Y*, these must be undertaken separately, so that for instance merger with a phrase ZP with property X and Y discharges only one of the relevant merger operations. Crucially, though, (39) does not block a single ZP from being the target of multiple operations at a given head, as long as these operations may be enacted in a discrete sequence such that the conditions on the operation at each step are met. Thus a ZP may be the target of both an *Agree* and a *Merge* operation at head H , since the output

¹⁴This has the interesting, if unusual, consequence that in PPA cases, A' -movement “tucks in” below the external argument. This property is shared by Müller’s (2010) related system, and as he points out, does not cause any obvious problems.

of *Agree* between H and ZP meets the conditions on *Merge* of H and ZP . Likewise, multiple *Agree* relations originating at H may target the same ZP , provided the conditions on the application of each of them is met. Feature Maximality therefore still applies as before.¹⁵ The proposal that the object in the examples above cannot discharge both the $[\circ D \circ]$ and $[\circ A' \circ]$ features on v can thus be seen to reduce to the basic generative assumption that the derivation is a finite sequence of discrete operations, hardly an innovation.

A final comment is in order concerning the remaining cases in Standard Italian: (i) that PPA is obligatory with third person clitics, and (ii) that PPA is ruled out under A' -movement. These facts are consistent with the present system, and can be captured if (i) third person clitics must move before EA is merged and (ii) *wh*-objects must move after EA is merged. As it stands, however, I see no obvious way of forcing (i) and (ii) without enrichment of our hypotheses. David Pesetsky (p.c.) has suggested that adopting a limited version of Gereon Müller's feature stack could capture these effects, i.e., in some languages merge features on a given head are at least partially ordered, thus allowing us to explain (i) and (ii) while still maintaining the same core system. I will leave further pursuit of this idea to future research.

Let's review where things stand at this point. First, the ObOp framework adopted here commits us to the hypothesis that v shares the same features across the clause types and languages considered, and that in particular all varieties of v are endowed with at least $[\circ A' \circ]$, $[\circ D \circ]$, and $[\varphi: _]$ features. Second, we hypothesized that the syntactic derivation is constrained by a basic economy principle, Feature Maximality, which dictates that syntactic operations should involve the fewest number of operands as possible, i.e., if ZP discharges feature $[F_i]$ at H , it must also discharge all features $[F_j]$ that it is capable of. The relevant consequence is that *Agree* at H with ZP triggers movement to $\text{Spec}(HP)$ if H can host ZP as a specifier. The PPA facts then fall out as a direct consequence of these two results.

In transitive clauses, if *Agree* is initiated with IA at v before merger of EA, IA must move to $\text{Spec}(vP)$, exhausting the feature needed to merge EA and rendering the structure uninterpretable; if EA is merged first, IA receives dependent case and is inaccessible to *Agree*, blocking PPA. Making the object a *wh*-phrase, and hence activating the $[\circ wh \circ]$ -feature on v , adds the exact additional degree of freedom needed to license PPA: *Agree* with IA can trigger discharge of $[\circ A' \circ]$ rather than $[\circ D \circ]$, allowing IA to shift to $\text{Spec}(vP)$ without blocking subsequent merger of EA; alternatively, EA can merge first, ruling out subsequent agreement with IA, which is nonetheless attracted to $\text{Spec}(vP)$ by $[\circ A' \circ]$. The same logic carries over unchanged in passive/unaccusative clauses. The $[\circ D \circ]$ feature on v may either attract IA, in which case *Agree* (and PPA) is obligatory, or $[\circ D \circ]$ may trigger expletive insertion. If the expletive is a case competitor, the derivation proceeds as in the transitive case. If, however, the expletive is non-agreeing and non-case-assigning, v may subsequently *Agree* with IA, licensing PPA.

The present account therefore offers the following answer to the essential challenge raised by PPA on the agreement at a distance model. The Spec-Head behavior of PPA in the cases we have so far considered arises as a side effect of the complex interaction between case, argument/expletive insertion, and agreement in the vP domain. PPA is essentially different from TP-domain agreement – which more transparently exhibits the at-a-distance property – because it is triggered at a head that is also responsible for introducing syntactic (and semantic) arguments, and is thus more deeply intertwined with the calculus of case and predicate saturation. Agreement at v thus interacts with these processes directly, whereas agreement triggered by higher heads merely accesses the output of this process, rather than directly taking part in it. The the-

¹⁵Recall that *Merge* is subject to locality (see (8)), so that once ZP has been merged at H , it no longer qualifies as a target for *Merge* at H . This rules out a derivation where ZP is merged to H per one obligatory operation, then immediately remerged per another.

ory therefore captures why PPA is contingent, in many cases, on movement while maintaining the at a distance nature of agreement, satisfying the first desiderata set out in the introduction.

4 PPA *in situ*

Movement-based PPA, of course, is only part of the cross-linguistic PPA paradigm. It remains to be seen how the present account deals with the PPA *in situ* data. As in the introduction, it will be helpful in the ensuing discussion to split these data into two subcases.

The first is the case of the PPA *in situ* languages, which generally speaking show the following behavior. PPA is licensed in all of the main cases where it appears in Standard Italian, French, MSc, including with promoted subjects of passives and unaccusatives and with encliticized direct objects, and objects that have undergone A'-movement (Loporcaro 2016: 811). Additionally, however, these languages allow PPA with the *in situ* object of a transitive clause.

The second case is the PPA *in situ* that obtains in some passive and unaccusative clauses in those languages that otherwise show only movement based PPA. These are the data reported in (3) in the introduction.

I now argue that the account so far developed extends to these cases immediately, without further revision. PPA *in situ* languages are considered first, followed by the exceptional cases.

4.1 PPA *in situ* languages

PPA *in situ* appears to have been the default pattern in Proto Romance (Loporcaro 2016), and is preserved in a number of modern Romance varieties. According to Loporcaro (2016), at least the following languages can be counted among this set: Neapolitan (40a), pre-19th-century Italian (40b), some dialects of Occitan (40c), some dialects of Gascon (40d), and some dialects of Catalan (40e).

- (40) a. add_{3ə} kottə/*kwottə a pastə
 have.1.SG cookPTCP.F/cookPTCP.M the.F.SG pasta.F.SG
 'I've cooked the pasta' *Neapolitan*
 (Loporcaro 2016: 806)
- b. Maria ha conosciute le ragazze.
 Maria has known.F.PL the girls.F.PL
 'Maria has known the girls.' *Pre-19th Century Italian*
 (Belletti 2006: 502)
- c. Abiò pla dubertos sas dos aurelhos.
 had.3.SG very opened.F.PL his.F.PL two ears.F.PL
 'He had well opened both ears.' *Occitan*
 (Loporcaro 2016: 808)
- d. Oun ass icados éras culhéros?
 where have.2.SG place.F.PL the.F.PL spoons.F.PL
 'Where did you put the spoons?' *Gascon*
 (Loporcaro 2016: 808)
- e. He trobats els amics.
 have.1.SG found.M.PL the.M.PL friends.M.PL
 'I have found the friends.' *Catalan*
 (Loporcaro 2016: 808)

To account for these data, recall that we have adopted the hypothesis that φ -Agree is sensitive

to the case on the target DP, and moreover that languages vary in terms of which cases they make accessible to φ -Agree, according to the implicational hierarchy below.

(5) **Case Accessibility:**

Accessibility to *Agree* is determined according to the *Moravcsik Hierarchy*:
unmarked case » *dependent case* » *lexical/oblique case*

The languages we have investigated so far fall into the most restrictive class, which makes only unmarked case accessible. It is well known, however, that even closely related languages can vary in terms of whether dependent case is accessible for φ -*Agree*. One well known case is the contrast between Hindi-Urdu and Nepali. The latter but not the former makes dependent case accessible, as illustrated below. Note that both languages exhibit an ergative/absolutive case alignment, where it is the higher, not lower, of two DPs in a given domain that receives dependent case. Accordingly, it is the ergative subject, not the lower object, that bears dependent case.

- (41) a. raam-ne rotii khaayii thii
 Ram-ERG.M bread.F eat.PERF.F be.PST.F
 ‘Ram had eaten bread.’ *Hindi-Urdu*
- b. Maile yas pasal-mā patrikā kin-ē
 I.SG.ERG DEM.OBL store-LOC newspaper.NOM buy.PAST-1SG
 ‘I bought the newspaper in this store.’ *Nepali*
 (Bobaljik 2008: 309f.)

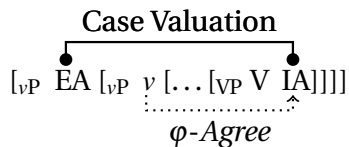
Bearing this in mind, my proposal is that PPA *in situ* languages differ minimally from the cases we have so far considered in that they make dependent case accessible to φ -agreement.

(42) **Case Accessibility** (PPA *in situ* languages):

In PPA *in situ* languages, dependent case is accessible to φ -*Agree*

We therefore correctly predict that PPA should be obligatory in all contexts. This is borne out as follows: recall that PPA is blocked in movement-based PPA languages exactly when a DP is merged in Spec(vP), triggering dependent case on the associate and rendering it inaccessible to agreement. If, however, dependent case is always accessible, it should be possible to *Agree* with an internal argument even after the external argument has been merged, so that PPA should never be blocked for case reasons.

(43) *Merge* EA ([\circ D \circ]); Case assignment; φ -*Agree* ([φ :_]):



It follows that the difference between PPA *in situ* and movement-based PPA languages reduces to a single parameter setting, whether or not dependent case is accessible to agreement, thus satisfying the first half of the second desiderata set out in the introduction. It’s worth noting, moreover, that this parameter is independently motivated, and that closely related languages can be independently observed to have the different settings posited here.

Before moving on, it’s worth asking whether there are any Mainland Scandinavian languages that pattern similarly in making dependent case accessible to agreement, and hence licensing PPA *in situ*. To the best of my knowledge, this has not been reported in the literature except

for a footnote in Holmberg's (2001: fn. 12) study of associate positions in Germanic expletive constructions. Here, it is observed that there are speakers of Swedish and Western Norwegian for whom PPA is possible as a marked alternative for *in situ* objects of passive predicates with an expletive *det* subject.

- (44) %Det blev skrivna tre böcker.
 EXPL was written.PL three books
 'There were three books written.' *Swedish*

This is certainly promising, although I must leave a full investigation to future research.

4.2 PPA *in situ* in movement-based PPA languages

The final type of PPA data identified in the introduction are the exceptional instances of *in situ* PPA in Standard Italian, French, and Mainland Scandinavian. Let's consider Mainland Scandinavian first, as we will eventually argue that the overt paradigm here also manifests covertly in Standard Italian and French.

Recall from the introduction that the exceptional Mainland Scandinavian data involve the alternation between the third singular neuter expletive, *det*, and an additional expletive, the distal locative proform *der*, cognate to English *there*. Åfarli (2009) observes that in those dialects with both expletives, they tend to be in relatively free variation, unlike in English, and may both be used in meteorological contexts, with CP associates, and with passives and unaccusatives. Relevant for our purposes is the contrast in (45) and (46), which shows up in all passive/unaccusative contexts. In short, exceptional PPA with the *in situ* object of a passive or unaccusative is licensed when the *der*, but not the *det*, expletive is used.

- (45) a. **Det** vart skote-(*n) **ein** **elg**
 it was shot.N.SG/*M.SG an.M.SG elk.M.SG
 b. **Der** vart skoten **ein** **elg**
 there was shot.M.SG an.M.SG elk.M.SG
 'There was an elk shot'
 (Åfarli 2008: 171)
- (46) a. **Det** er nett kom-e/*ne **nokre gjester**
 it is just come.N.SG/*M.SG some guests.PL
 b. **Der** er nett kom-ne/*e **nokre gjester**
 there is just come.PL/*N.SG some guests.PL
 'There have just arrived some guests.'
 (Christensen & Taraldsen 1989: 58)

As before, let us adopt the null hypothesis that expletive pronouns maintain the formal syntactic properties of their non-expletive variants. As a locative proform, *der* is therefore lexically oblique. This means that it cannot trigger agreement – by hypothesis Mainland Scandinavian only licenses agreement with unmarked case – and moreover that it does not participate in the case system (Preminger 2014). Because Mainland Scandinavian lacks ϕ -Agree at T, it is hard to independently verify the first assertion, although the locative expletives in closely related English and Dutch clearly do not trigger agreement, which is always with the associate.

- (47) a. There were/*was three men arrested.
 b. Er zijn enkele mensen onverdragelijk.
 EXPL be.PRES.3.PL some person.PL intolerable

Setting aside the PPA for the moment, I would like to focus momentarily on two independent aspects of (51) that will be important for the eventual analysis. First, the data in (51) differ from all examples that we have considered so far in that there is no overt expletive higher in the structure. This is related to Standard Italian's status as a null-subject language, and can be encoded in the present system in one of two ways. First, we can assume that [\circ D \circ] is optional on T and ν in Italian; in cases like (51), it is absent, and Spec(ν P) and Spec(TP) are empty, whereas in cases of full object promotion (see (30)), it is present and IA moves to Spec(TP). Second, we can assume that Italian T and ν have [\circ D \circ], like their counterparts in French and MSc, but that Italian has a null expletive. The first option is subject to the same caveats about optional features discussed in Section 3.2, so I will for now adopt the second option (see Sheehan 2010 for a modern, independent argument to this effect).¹⁷

Second, *in situ* objects of passives and unaccusatives in Italian obligatorily trigger agreement at T, as in (51). Such objects are thus licit targets for *Agree*, which means they must be unmarked for case – by hypothesis, only unmarked case is accessible for agreement in Italian. Granting that Italian has a null expletive, we can conclude that this expletive is not a case competitor. Crucially, this conclusion is completely independent of PPA; it is forced, given our framework assumptions, purely on the basis of agreement at T.

Summarizing, Italian ν uniformly has an [\circ D \circ] feature, which may be satisfied by merging a null, non-case-competing expletive. Because the expletive is not a case competitor, it can be merged in Spec(ν P) without rendering the internal argument inaccessible to *Agree*. The [φ :_] feature on ν must therefore be discharged by the object according to ObOp logic, so we correctly predict that Italian obligatorily shows PPA with *in situ* objects in passive and unaccusative clauses.¹⁸

(52) Merge EXPL; no Case assignment; φ -*Agree* obligatory; \checkmark PPA:

$$[\nu P \text{ PRO}_{\text{EXPL}} [\nu P \nu [\nu P V \text{ IA}]]]$$

..... $\hat{\uparrow}$
 φ -Agree

On this view, Italian passives/unaccusatives are directly analogous to the Norwegian example in (45) and (46): in both cases, a non-case-competing expletive is merged in Spec(ν P), so that PPA is obligatory with the therefore accessible internal argument. It just so happens that the expletive is overt in Norwegian and covert in Italian.

The stage is now set to examine the final class of examples, exceptional *in situ* PPA in French. In particular, in stylistic inversion contexts, PPA is possible with the *in situ* object of passive and unaccusative predicates.

(53) Il faut que aient été repeintes **trois chaises**.
it requires that have.SBJ.PL been repainted.PL three chairs
'It's necessary that there have been three chairs repainted.'

French

I first provide some basic background on stylistic inversion, then argue that the post-verbal DP in (53) is indeed *in situ*.

Descriptively speaking, *Stylistic Inversion* (Kayne and Pollock 1978; Kayne and Pollock 2001) refers to the possibility for subjects of transitive and unergative verbs and internal arguments of passive and unaccusative verbs to appear in a non-canonical post-verbal position in subjunc-

¹⁷The account of PPA actually does not depend on the choice between the two options in this case (see fn.18).

¹⁸Setting aside the optionality problem, we also predict the PPA facts if we assume Italian does not have a null expletive. On this model, passive/unaccusative ν has a variant without a [\circ D \circ] feature. The [φ :_] must therefore be discharged via *Agree* with the object, and no movement ensues because ν has no feature to trigger it.

tive and interrogative contexts without an expletive. This position is not ordinarily available for transitive subjects (cf. (54a,b)), nor can the internal argument of a passive or unaccusative predicate appear here ordinarily without an overt expletive (cf. (55a,b)). For the remainder of this section, we will be focused on the passive/unaccusative data, although I present the basic transitive/unergative pattern in (54) for the sake of completeness.¹⁹

¹⁹As Kayne and Pollock 2001, who give an analysis of the transitive/unergative data acknowledge (p.112, fn.9), the passive/unaccusative examples likely represent a different phenomenon with a distinct derivation.

- (54) Transitive/unergative
- a. A qui a téléphoné **ton ami**?
to whom has called your friend
- b. *(**Ton ami**) a téléphoné (***ton ami**) a Jean (***ton ami**). French
(Kayne and Pollock 2001: 107f.)
- (55) Passive/unaccusative
- a. Il faut que aient été condamnés **au moins trois hommes**
it requires that have.SBJ.PL been sentenced.PL at least three
'It's necessary that there have been least three men sentenced.'
- b. *(Il) a été condamné **au moins trois hommes** French
EXPL has been condemned at least three men

While I do not have a proposal for why interrogative and subjunctive contexts license this behavior, there is evidence that in cases like (55a), the internal argument may remain *in situ*. Specifically, at least some speakers allow *en*-cliticization of the NP component of the internal argument in these contexts (see also Kayne 2001: 112, fn.9). This operation is generally limited to *in situ* internal arguments (Kayne 1975; Rizzi 1982; Kayne and Pollock 2001).

- (56) a. %Il faut qu'**en**₁ aient été condamnés au moins [**trois** *e*₁]
it requires that-of them have.SBJ.PL been sentenced.PL at least three
'It's necessary that there have been at least three of them sentenced.'
- b. %Il faut qu'**en**₁ aient repeintes au moins [**trois** *e*₁].
it requires that-of them have.SBJ.PL repainted.PL at least three
'It's necessary that there have been at least three of them repainted.'

Granting that French has [oD_o] features at *v* and T, we are therefore lead to the conclusion that French licenses a null expletive in these cases.²⁰ Moreover it must be a non-agreeing and non-case-assigning expletive, as agreement at T is with the *in situ* internal argument. Such cases are thus exactly parallel to Italian passive/unaccusative clauses with *in situ* objects. We therefore correctly predict that PPA should be obligatory here. We also predict that if we re-insert the overt case-assigning expletive, which is also licensed in all SI contexts, PPA should become impossible again. This is also borne out.²¹

- (57) a. Où ont été exécutés **des innocents**?
where have.PL been executed.PL some innocents
'Where have there been some innocents executed?'
(Cardinaletti 1997: 521)
- b. Où a-t-**il** été exécuté(***es**) **des innocents**?
where have.SG-it been executed.(*PL) some innocents
'Where have there been some innocents executed?'

²⁰As in Italian, the prediction concerning the presence of PPA in such cases is the same if we assume, alternatively, that French T and *v* optionally lack a [oD_o] feature in such cases. See fn. 18.

²¹Note that the agreement on the participle is not with *en*, which does not trigger PPA for the speakers who accept (56b,c). In general, PPA with *en* is a marked option that is impossible for most speakers (Belletti, 2006), including all those I have consulted.

- (58) a. Il faut que aient été repeintes **trois chaises**.
 it requires that have.SBJ.PL been repainted.PL three chairs
 ‘It’s necessary that there have been three chairs repainted.’
 b. Il faut qu’il ait été repeint*(es) **trois chaises**.
 it requires that-it has.SBJ.SG been repainted.(*PL) three chairs
 ‘It’s necessary that there have been three chairs repainted.’
- (59) a. Il faut que soient mortes **trois sauterelles**.
 it requires that are.SBJ.PL died.PL three grasshoppers
 ‘It’s necessary that three grasshoppers have died.’
 b. Il faut qu’il soit mort*(es) **trois sauterelles**.
 it requires that-it is.SBJ.SG died.(*PL) three grasshoppers
 ‘It’s necessary that three grasshoppers have died.’

While there remains the very important question of why subjunctive and interrogative contexts are unique in licensing the null non-agreeing expletive in French (or alternatively in licensing a relaxing of the EPP; see fn. 20), these data are exactly predicted on the present account: in just those contexts where French shows Italian-type behavior with respect to agreement at T and null expletives, it too shows Italian-type behavior with respect to PPA. This corroborates the main idea of this paper, that the restricted nature of PPA reflects the fact that the triggering head, *v*, is also an argument/expletive introducer.

Taking stock, we have now seen that the present system reduces the contrast between PPA *in situ* and movement-based PPA languages to a single parameter, whether or not dependent case is accessible to agreement. Given that this setting commonly varies across closely related languages, as exemplified above in Indo-Aryan, it is unsurprising that we also see such variation in the Romance languages. This choice, moreover, allows us to avoid complicating the syntax of PPA in any other way. Unless presented with further evidence, we can assume that PPA is uniformly triggered by *v* in Romance, and moreover that the internal argument is universally accessible, *ceteris paribus*, to this agreement.

I then argued that exceptional PPA *in situ* in Standard Italian, French, and Mainland Scandinavian is essentially a species of this same phenomenon. While these languages do not tolerate agreement with dependent marked DPs, they all furnish, in at least some contexts, an element that may be merged in Spec(*v*P) without triggering case valuation on a lower DP. In these and exactly these contexts, *in situ* PPA is obligatory. This satisfies the final desiderata set out in the introduction.

5 Alternative treatments

While PPA received wide attention following Kayne’s (1989) work, there have been few subsequent Minimalist studies that approach the phenomenon from a perspective accepting that agreement intrinsically operates at a distance.²² The only work of this sort that I am aware of is due to D’Alessandro and Roberts (2008, 2010). In this section, I review this analysis and argue that it is not sufficient to capture to full array of data explored in this paper. That said, it shares an interesting similarity with the present account in that it reduces the exceptional (from the perspective of agreement at a distance) nature of PPA to the special status of *v*.

²²It should be noted that Loporcaro has conducted a number of subsequent studies on the typological distribution of PPA and the various implicational hierarchies among the sorts of objects that license it, from the perspective of relational grammar.

D'Alessandro and Roberts (2008) propose the following account of PPA in Italian, couched in the uninterpretable-features model of *Agree* (Chomsky 2000; 2001): transitive and passive/unaccusative *v* are endowed with agreement features, and in fact always undergo *Agree* with IA; this agreement is only spelled out morphologically, however, when the head hosting the agreement is in the same phase as the target. The account is based on three main claims. The first is that agreement is only spelled out morphologically when the trigger and goal are in the minimal complement of the same phase head:

- (60) **Phasal Agreement Condition** (D'Alessandro and Roberts 2008: 482)
- a. Given an *Agree* relation A between probe P and goal G, morphophonological agreement between P and G is realized iff P and G are contained in the complement of the minimal phase head H
 - b. XP is in the complement of a minimal phase head H there is no distinct phase H' contained in XP whose complement YP contains P and G

The second claim is that in Italian transitive clauses, the head hosting the participle raises to at least *v*. They provide as evidence the fact that Italian participles must raise above manner adverbs in active sentences (Cinque 1999: 102f.).

- (61) Hanno *(accolto) bene (*accolto) il suo spettacolo solo loro.
 have.PL (recieved) well (recieved) the his show only they
 'They alone have received his show well.'

The third claim is that transitive *v* is a phase head in active but not passive sentences, and that unaccusative *v* is never a phase head. Granting these three claims, the main Italian data are then derived as follows. First, in transitive clauses, *v* always agrees with IA. However, because the participle raises to *v*, it is not in the minimal complement to *v*, whereas an *in situ* object is. By (60), PPA is not spelled out (see (62a)). If IA is a clitic, however, it must raise into the TP domain. Assuming C is the next phase head, both the participle, which is by hypothesis at *v*, and IA will therefore be in the minimal complement to C, so PPA is spelled out. Finally, in passive/unaccusative clauses, *v* is not a phase head, so irrespective of the position of the participle, V and IA will always be in the minimal complement to phase head C, and hence PPA will always be spelled out (see (62b)).

- (62) a. $[_{TP} I [_{have} [_{vP} \textit{eaten} +v [_{VP} \textit{eaten} \textit{the apple}]]]]$
- spell-out domain
- b. $[_{CP} C [_{TP} \textit{them.CL} [_{TP} I [_{have} [_{vP} \textit{eaten} +v [_{VP} \textit{eaten} \textit{them}]]]]]]]$
- spell-out domain spell-out domain

There are two major challenges facing this account. The first and more serious is that PPA isn't conditioned on the height of the participle cross-linguistically. In particular, there are languages where the participle can stay very low in the structure, possibly even *in situ*, and yet PPA is impossible in transitive clauses, as well as languages where the participle raises at least as high as in Italian, and yet PPA is licensed with *in situ* objects. In the former class is French, where the participle cannot raise above manner adverbs like *bien*, and may appear below much lower VP-level adverbs like *presque, à peine, souvent* (Pollock 1989; Cinque 1999). As we have seen, however, PPA is robustly impossible in transitive clauses.

- (63) a. Il en a (bien) compris (*bien) à peine la moitié.
 (Cinque 1999: 46)
 b. Guy a (presque) mis (presque) fin au conflit.
 c. Jean a (à peine) vu (à peine) Marie.
 (Pollock 1989: 417)

An instance of the latter class of languages is Neapolitan, where transitive active participles must raise above *bene*²³ (see (64)), and yet PPA is licensed with *in situ* objects

- (64) kill a (*tuttə) kapitə (tuttə) e kkill a:tə nunn a kapitə
 that-one has all understood all and that-one other not has understood
 njentə
 nothing
 ‘He understood everything and the other one didn’t understand anything’
 (Loporcaro 2010: 235)

- (65) addʒə kəttə/*kwəttə a pastə
 have.1.SG cookPTCP.F/cookPTCP.M the.F.SG pasta.F.SG
 ‘I’ve cooked the pasta’
 (Lopocaro 2010: 226)

The second major challenge is the correlation between PPA in passive/unaccusative clauses and the status of the higher expletive. As we have seen in Italian, French, and Mainland Scandinavia, if the expletive is itself an agreement trigger and case competitor, PPA is blocked, whereas if the expletive is an oblique and thus not a case competitor, PPA is licensed. It is hard to see how these facts could be given a principled analysis on the present account. Presumably, it would be necessary to reduce these facts to a difference in the phasal status of the *v* introducing oblique vs. non-oblique expletives, since this is the main tool at our disposal on this account. But I see no principled ground on which to motivate the contrast.

6 Conclusion

At the outset of this paper, we endeavored to address the technical challenge raised by PPA on the modern understanding of agreement. Our preliminary discussion outlined three desiderata that any theory of PPA should achieve: (i) to explain the broad difference between PPA *in situ* languages and movement-based PPA languages; (ii) to explain why PPA is coupled with movement in movement-based languages, especially given that agreement is generally allowed at a distance; (iii) to explain the exceptional cases of *in situ* PPA in the otherwise movement-based PPA languages. We have now sketched a theory in terms of agreement at a distance that meets these conditions.

At its core, the proposal is that there is an economy constraint that forces agreement at *v* to compete with the need to introduce an external argument or expletive. In transitive clauses, the semantic requirement to saturate the *v*P with an argument always takes precedent, with the effect that agreement must be postponed until after the external argument is merged. Unless depen-

²³Following Cinque (1999: 119), quantifiers floated from the object are above *bene/bien*.

- (i) Li ho spiegati (tutti) bene (*tutti) a Gianni.
 ‘I have explained well all to Gianni’
 (Cinque 1999: 119)

dent case is accessible to agreement, however, the internal argument is not a suitable agreement target once the external argument has been merged, and PPA is blocked. The introduction of an additional movement trigger at v relaxes the calculus and allows agreement before the external argument is merged, explaining why PPA is possible under movement. Finally, the various cases of PPA *in situ* reflect instances where agreement is exceptionally licensed after the external argument/expletive has been merged, either because of intrinsic properties of the language or of the expletive.

There are two main upshots. First, the Spec-Head nature of PPA is directly tied to the fact that v , the triggering head, is a locus of argument/expletive insertion. In contrast, the cases of true agreement at a distance cited in the introduction are universally triggered by the head that licenses finite verb agreement with the subject, which must be above v by definition. The restricted nature of PPA compared to these other cross-linguistic manifestations of agreement, and in particular the fact that it is often coupled with movement, thus reduces to independent differences in the properties of the triggering head.

Second, there is a more articulated link between agreement and movement than is usually assumed on the agreement at a distance model, where movement is completely dissociated from agreement and triggered when necessary by optional EPP features on heads or probes. The principle of Feature Maximality, in contrast, holds that agreement and movement interact when they are licensed at the same head. In particular, they must act concurrently if possible, i.e., agreement triggers movement when it can. Thus, while nothing inherently forces these features to co-occur, when they do they interact according to a basic notion of economy. This both preserves Chomsky's (2000; 2001) hypothesis that agreement and merge are formally dissociated while allowing the flexibility to capture the cases where they appear to be coupled.

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