

ON ROMANCE PAST PARTICIPLE AGREEMENT AND ITS CHALLENGES

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Abstract

Past participle agreement (PPA) in Western Romance is fairly uniform phenomenon. Despite this, it does display cross-linguistic differences that have not yet been adequately explained in the linguistic literature of the past 30+ years. Many investigations have attempted to tie the general phenomenon to Spec-Head agreement as well as to PF conditions on the morphophonological realization of agreement. Despite these attempts, none can handle the oft-cited difference between Italian and French, dating back to Cinque (1975): Italian direct object *wh*-phrases (*wh*-DOs) do not trigger PPA, while French ones do. In this thesis, I explore the facts and generalizations in the PPA data more deeply, providing an exploratory yet thorough investigation of the areas in which PPA occurs as well as an investigation of the properties of the direct object clitics (DO-clitics) and partitive clitics in these Romance languages. In doing so, I evaluate some of the options that may eventually lead to a satisfactory explanation of cross-linguistic PPA patterns.

This thesis is broken down into 3 main parts. The first part is a presentation of the data regarding PPA patterns with DO-clitics and partitive clitics in 3-5 of the major Western Romance languages (Italian, French, Catalan, Spanish, and Portuguese). Intriguing patterns show up, especially with respect to the presence, absence, and optionality of PPA and its relation to specificity and person-distinctions. The remainder of the first part details properties of the relevant clitics under Déchaine and Wiltschko (2002)'s pronominal typology. The second part and half of the third part are derived from a previous paper of mine, which examined two existing PPA analyses and detailed an analysis of my own. The other half of the third part explores a few more options for an explanation of PPA patterns. At the end of this thesis, I leave the reader with many future research questions as well as a plethora of linguistic data from which a future solution to the question of why PPA patterns differ may find its beginnings.

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List of Abbreviations

1	1 st person
2	2 nd person
3	3 rd person
ACC	accusative (structural case)
AUX	auxiliary (verb)
CMRA	Condition on the Morphophonological Realization of Agreement
COP	Condition on the Occurrence of PPA
DAR	D'Alessandro and Roberts (2008)
DO	direct object
DO-clitic	direct object clitic
DORC	direct object relative clause
DW	Déchaine and Wiltschko (2002)
F	feminine
M	masculine
NID	Northern Italian dialect
NOM	nominative (structural case)
PG	parasitic gap
PIC	Phase Impenetrability Condition
PPA	past participle agreement
PL	plural
RC	relative clause
SG	singular
<i>wh</i> -DO	<i>wh</i> -direct object

1 Introduction

This thesis is concerned with the question of why languages differ with respect to the realization of past participle agreement. I focus primarily on (Western) Romance languages in terms of data. In this chapter, I present the heavily cited contrast between Italian and French in section 1.1, which serves as the starting point for the remainder of this thesis. Section 1.2 provides an outline of the thesis.

1.1 A small typology

Italian and French are both languages that exhibit past participle agreement (PPA) with a (displaced) internal argument. Additionally, both make use of clitic pronouns, among which direct object clitics (DO-clitics) and partitive clitics¹ are most relevant to my discussion. The treatment of these two types of clitics seems to be mostly the same in French and Italian. For example, both obligatorily do not exhibit PPA with a direct object with a direct object in situ (DO in-situ), as in (1-2). Conversely, both obligatorily² exhibit PPA with DO-clitics, as in (3-4).

Italian: No PPA with DO in-situ

¹ For this section, I focus only on DO-clitics. I present partitive clitic data in chapter 2 and discuss them later in section 5.1.

² In colloquial French, certain instances of PPA are often omitted. In fact, PPA may be on its way out of the French language as a phenomenon altogether. I observed this in one of my French correspondents who does not accept PPA with *wh*-direct objects (*wh*-DOs) in their spoken French. Both of these facts are probably due to the lack of robust phonetic evidence for PPA in many verbs, especially those of the *-er* and *-ir* stems, e.g. *manger* ‘to eat’ > *mangé*, *mangée* /mãʒe/ and *mangés*, *mangées* /mãʒe(z)/, and *sortir* ‘to go out’ > *sorti*, *sortie* /sɔʁti/ and *sortis*, *sorties* /sɔʁti(z)/. Such evidence for PPA exists mainly in verbs with *-re* stems, e.g. *prendre* ‘to take’ > *pris* /pʁi/ and *prise(s)* /pʁiz/, but not all, e.g. *perdre* ‘to lose’ > *perdu*, *perdue* /pɛʁdy/ and *perdus*, *perdues* /pɛʁdy(z)/.

In standard (i.e. written or formal) French, many kinds of PPA are obligatory and can result in interpretational differences. I discuss the interpretational difference briefly in section 3.1.2 and later in section 5.1. Those who are interested in the matter should see Belletti (2006) and Rocquet (2010), and the references cited therein.

Given the behavior of colloquial and standard French with respect to PPA, I treat both options, no PPA and PPA, as grammatical unless otherwise noted.

- (1) a. Ho **mangiato le** **mele**
 have.1.SG eaten the.F.PL apples.F
 ‘I have eaten the apples’
- b. * Ho **mangiate le** **mele**
 have.1.SG eaten.F.PL the.F.PL apples.F

French: No PPA with DO in-situ

- (2) a. J’ ai **mangé** **les** **pommes**
 I have eaten the.PL apples.F
 ‘I have eaten the apples’
- b. * J’ ai **mangées** **les** **pommes**
 I have eaten.F.PL the.PL apples.F

Italian: Obligatory PPA with DO-clitic

- (3) a. * **Le** ho **mangiato**
 them.F.PL have.1.SG eaten
 ‘I have eaten them’
- b. **Le** ho **mangiate**
 them.F.PL have.1.SG eaten.F.PL

French: Optional PPA with DO-clitic

- (4) a. Je **les** ai **mangé**
 I them.F have eaten
 ‘I have eaten them’
- b. Je **les** ai **mangées**
 I them.F have eaten.F.PL

Despite having PPA and DO-clitics, both languages do not manifest PPA in exactly the same contexts. One of the earlier contrasts, mentioned in the literature, between Italian and French PPA appears in Cinque (1975): Italian exhibits no PPA with direct object relative clauses (DORCs), but French does, as shown in (5-6).

Italian: No PPA with DORCs

- (5) a. **Le mele** che ho **mangiato**
 the.F.PL apples.F which have.1.SG eaten
 ‘I have eaten the apples’
- b. * **Le mele** che ho **mangiate**
 the.F.PL apples.F which have.1.SG eaten.F.PL

French: Optional PPA with DORCs

- (6) a. **Les pommes** que j’ ai **mangé**
 the.PL apples.F which I have eaten
 ‘The apples that I have eaten’
- b. **Les pommes** que j’ ai **mangées**
 the.PL apples.F which I have eaten.F.PL

Any explanation attributing the contrast in (5-6) to the fact that French has case-sensitive³ relative pronouns, *qui* ‘who/that/which’ for nominative case and *que* ‘whom/that/which’ for accusative case, and that Italian has a case-insensitive relative pronoun, *che* ‘who/whom/that/which’, is inadequate. This is because the same contrast exists in matrix *wh*-questions with *wh*-direct-objects (*wh*-DOs). In *wh*-questions, *wh*-words, e.g. French *qui* ‘who/whom’ and Italian *chi* ‘who/whom’, among many others, display no such case sensitivity:

Italian: No PPA with wh-DOs

- (7) a. **Quanti libri** hai **letto?**
 how many.M.PL books.M have.2.SG read
 ‘How many books have you read?’
- b. * **Quanti libri** hai **letti?**
 how many.M.PL books.M have.2.SG read.M.PL

³ The notion of “case sensitivity” here is taken to mean that the form of a particular element inflects according to its case. Therefore, an element X that is case-sensitive might, for example, have a form A when it receives structural nominative case and a form B when it receives structural accusative case. An element Y that is case-*insensitive*, on the other hand, will have a form C, regardless of what case it receives.

French: Optional PPA with wh-DOs

- (8) a. **Quelles baleines** Claire a-t-elle **vu**?
 which.F.PL whales.F Claire has-t-she seen
 ‘Which whales has Claire seen?’
- b. **Quelles baleines** Claire a-t-elle **vues**?
 which.F.PL whale.F Claire has-t-she seen.F.PL

Strangely, the exact opposite PPA facts exist when the partitive clitic comes into play. Italian has optional PPA with partitive clitics while French does not allow PPA at all in the same contexts.

Italian: Optional PPA with partitive clitics

- (9) a. Io **ne** ho **visto cinque**
 I of them.M.PL have seen five
 ‘I saw five (of them)’
- b. Io **ne** ho **visti cinque**
 I of them.M.PL have seen.M.PL five

French: No PPA with partitive clitics

- (10) a. Il **en** a **repeint deux**
 he of them.F.PL has repainted two
 ‘He repainted two (of them)’
- b. * Il **en** a **repeintes deux**
 he of them.F.PL has repainted.F.PL two

1.2 An outline

Recent analyses of PPA in Italian (D'Alessandro & Roberts, 2008) and French (Rocquet, 2010) do not account for the contrasts presented above. Following the research program laid out in Chomsky (1995) following Borer (1984)⁴, I take the computational component (narrow syntax) to be invariable and syntactic variation to be manifested in the featural specifications in lexical

⁴ Also known as the Borer-Chomsky Conjecture, followed by many others, including Baker (2008), Barbiers (2009), from which this thesis takes primary inspiration from, and Kayne (2005).

items. This assumption guides my exploration of the morphosyntactic options available to answering my research question of why PPA differs in these languages.

This thesis is organized as follows: in chapter 2, I present PPA data collected from the literature and my own elicitation questionnaires. Additionally in chapter 2, I provide data shedding light on the properties of DO-clitics and partitive clitics. In chapter 3, I present two approaches to PPA using the notion of phases, primarily as an introduction to recent (Romance) PPA literature and primarily to point out that minor tweaks in phase-based approaches do not converge on a satisfactory solution to my research question. In chapter 4, I step back and evaluate the possible explanations for the differences in PPA. A large portion of chapter 4 is based on one of my previous analyses based on insights from Poletto and Pollock (2004). In Chapter 5, I conclude with a summary of the preceding discussion and issues left over for future research.

2 The data

In this chapter, I present the PPA facts in Italian, French, and Catalan. Spanish and Portuguese examples are provided in a few cases to demonstrate the variation and trends in Western Romance PPA. Section 2.1 provides an overview of the contexts in which PPA occurs (or does not occur). Section 2.2 details the properties of the DO-clitics and partitive clitics in Italian, French, and Catalan.

2.1 PPA patterns

2.1.1 DO-clitics

DO-clitics are a property that Romance languages are known for. However, despite their common roots, they display a wide range of properties. Of the five most spoken Italo-Western Romance languages: Spanish, Portuguese, French, Italian⁵, and Catalan, only the eastern most standard varieties exhibit PPA with DO-clitics, namely Italian, French, and Catalan. Across the board, PPA is available with 3rd person DO-clitics⁶. Typically, PPA occurs for gender and number.

Italian, French, and Catalan PPA with 3rd person DO-clitics

(11) *Italian*

- a. **L'** ho **vista**
 her have.1.SG seen.F.SG
 'I've seen her'

*French*⁷

- b. Je **l'** ai **prise** au jardin botanique

⁵ For Spanish and Portuguese, I am considering only the European varieties, namely Castilian Spanish and European Portuguese. For French and Italian, I am considering only the standard varieties (i.e. not the dialects).

⁶ Recall footnote 1 where French has the optional realization of PPA. This is also true for Catalan for the 3rd person. I mention this briefly later in this subsection.

⁷ For the reason I noted in footnote 1, some French examples will be considerably more complicated than the others since French PPA is often phonologically unrealized, unless the correct verb forms are used.

I her have taken.F.SG to the garden botanic
 ‘I took her to the botanic garden’

Catalan

c. **L’** he **vista**
 her have.1.SG seen.F.SG
 ‘I’ve seen her’

It is worthwhile to note that the situation in Catalan is extremely variable. Generally, only the eastern dialects, starting from Barcelona, exhibit PPA (Marina Roman Castells, pc). Additionally, the extent of PPA varies from dialect to dialect, with some only exhibiting PPA with the feminine gender, but not the masculine gender (Anna Pineda, pc). According to Muxí (1996), the Barcelonian dialect allows both feminine and masculine PPA, but the masculine is less acceptable than the feminine.

This contrasts with the situation in French and Italian where the standard variety is at least prescriptively invariant with regards to the interaction between PPA and gender. (The interaction between PPA and person, however, differs, as I demonstrate below).

Of the three, only Catalan⁸ disallows PPA with 1st and 2nd person pronouns. For Italian, such PPA is optional⁹. French, could arguably be classed with Italian in this respect, but I will reiterate that French PPA is generally optional anyway, making no distinction between the persons.

(12) *Italian* (from Muxí (1996))

- a. **Ti** ha **visto**
 you.SG has seen
 ‘He saw you’ (where ‘you’ refers to a female person)
- b. **Ti** ha **vista**

⁸ Specifically, the Barcelonian dialect and the dialect of my consultant, Anna Pineda, exhibit this property.

⁹ Whether this is attributable to the natural division between the 1st and 2nd persons, and the 3rd person is currently unknown to me. I suspect that it is related to the fact that 1st and 2nd person refer to participants in the context, whereas 3rd person refers to non-participants (i.e. those not in the context). I have left this for future research in Nguyen (forthcoming), tackling both patterns in Catalan and Italian.

you.SG has seen.F.SG

French

c. Il **t'** a **pris** au jardin

He you.SG has taken to the garden

'He took you to the garden' (where 'you' refers to a female person)

d. Il **t'** a **prise** au jardin

He you.SG has taken.F.SG to the garden

Catalan (from Muxí (1996))

e. **T'** ha **agafat** per la mà

you.SG has taken by the hand

'He took you by the hand' (where 'you' refers to a female person)

f. * **T'** ha **agafada** per la mà

you.SG has taken.F.SG by the hand

To summarize this subsection, I present the following chart of the PPA facts so far.

(13) *PPA with DO-clitics*

	Italian	French	Catalan	Spanish	Portuguese
1 st	%	%	*	*	*
2 nd	%	%	*	*	*
3 rd	OK	%	%	*	*

2.1.2 *Wh*-DOs

In this thesis, I do not deal specifically with all forms of A'-movement, e.g. topicalization, focus movement, etc. I only deal with *wh*-movement of *wh*-phrases and relative clauses (RCs). However, the facts presented for the *wh*-movement of DOs (henceforth, *wh*-DOs) seem to generalize to all forms of A'-movement, or at least the ones that involve dislocation to the left periphery (i.e. somewhere in the CP)..

In this subsection, I only treat *wh*-DOs, and not other *wh*-elements, such as *wh*-elements as derived subjects, which I treat in the following subsection.

Of the Romance languages being considered, only French shows PPA with *wh*-DOs, both in *wh*-questions and in RCs. The patterns below show RCs, but they readily extend themselves to *wh*-questions with *wh*-DOs.

(14) *Italian*

a. **Le ragazze** che ho **visto**
 the.F.PL girls.F that have.1.SG seen
 ‘The girls that I saw’

b. * **Le ragazze** che ho **viste**
 the.F.PL girls.F that have.1.SG seen.F.PL

French

c. **Les lettres** que j’ ai **écrit**
 the.PL letters.F that I have written

d. **Les lettres** que j’ ai **écrites**
 the.PL letters.F that I have written.F.PL
 ‘The letters that I wrote’

Catalan

e. **Les noies** que he **vist**
 the.F.PL girls.F that have.1.SG seen
 ‘The girls that I saw’

f. * **Les noies** que he **vistes**
 the.F.PL girls.F that have.1.SG seen.F.PL

Spanish

g. **Las niñas** que he **visto**
 the.F.PL girls.F that have.1.SG seen
 ‘The girls that I saw’

h. * **Las niñas** que he **vistas**
 the.F.PL girls.F that have.1.SG seen.F.PL

(Muxí, 1996, p. 131)

2.1.3 Derived subjects and reflexives

With regard to “derived” subjects, i.e. subjects of unaccusative verbs and passive verbs, and reflexives, the presence of PPA depends on the auxiliary that is selected. Languages that use a copula auxiliary from either Latin *esse* ‘to be’ or *stāre* ‘to stand’ will exhibit PPA. If a different auxiliary is employed, then there is usually no PPA. For passive verbs, all 5 languages use a form of (one of) their copular verb(s), which predicts the availability of PPA.

In Italian, both the passive auxiliary *stato* ‘been’ and the past participle are required to agree with the derived subject. Any other permutation of agreement between the two is ungrammatical. It seems as though *sono* ‘are’ (from *essere* ‘to be’) fulfills the copula requirement for *stato* ‘been’ to be able to agree with the derived subject, and *stato* ‘been’ does the same for *arrestato* ‘arrested’.

French differs minimally from Italian in that its passive auxiliary *été* ‘been’ does not inflect and this is presumably because the auxiliary preceding it (or selecting it) is *ont* ‘have’ (from *avoir* ‘to have’), instead of *sont* ‘are’ (from *être* ‘to be’). Naturally, since *été* is a form of the copula, this seems to license the ability of the past participle *pris* ‘taken’ to exhibit PPA. Similar facts hold for Catalan and Portuguese.

Spanish seems to differ from the rest in that PPA is optional with passives.

(15) *Italian* (from D’Alessandro and Roberts (2008))

- a. **Le ragazze sono state arrestate**
 the.F.PL girls.F are been.F.PL arrested.F.PL
 ‘The girls have been arrested’
- b. * **Le ragazze sono stato arrestato**
 the.F.PL girls.F are been arrested
- c. * **Le ragazze sono state arrestato**
 the.F.PL girls.F are been.F.PL arrested
- d. * **Le ragazze sono stato arrestate**

the.F.PL girls.F are been arrested.F.PL

French

e. **Les filles** ont été **prises** au jardin
the.PL girls.F have been taken.3.PL to the garden
'The girls have been taken to the garden'

f. * **Les filles** ont été **pris** au jardin
the.PL girls.F have been taken to the garden

Catalan (from Muxí (1996))

g. **Els meus germans** han estat **arrestats**
the.M.PL my.M.PL brothers.M have been arrested.M.PL
'My brothers have been arrested'

h. * **Els meus germans** han estat **arrestat**
the.M.PL my.M.PL brothers.M have been arrested

Spanish (from Muxí (1996))

i. **Mis hermanos** han sido **arrestados**
my.PL brothers.M have been arrested.M.PL
'My brothers have been arrested'

j. **Mis hermanos** han sido **arrestado**
my.PL brothers.M have been arrested

*Portuguese*¹⁰ (a from (Costa & Figueiredo Silva, 2004), b from my consultant)

k. **As casas** foram **destruídas**
the.F.PL houses.F were destroyed.F.PL
'The houses were destroyed'

l. * **As casas** foram **destruído**

¹⁰ Brazilian Portuguese does have a more parallel passive, but it is considered to be quite formal.

- (i) a. **As casas** hão sido **destruídas**
the.F.PL houses.F have been destroyed.F.PL
'The houses have been destroyed'
- b. **As casas** hão sido **destruído**
the.F.PL houses.F have been destroyed

the.F.PL houses.F were destroyed

The real differences between these languages comes into play with unaccusatives and reflexives. In French and Italian, unaccusative and reflexive verbs take the copula as their auxiliary verb, either *être* or *essere*. This distinguishes these verbs from active transitive verbs and unergative verbs. On the other hand, Catalan, Spanish, and Portuguese do not make such a distinction, opting for the auxiliary use of the verb ‘to have’. Predictably, the ones that make use of the copula show PPA while the others don’t. This pattern may be related to the correlation that Lois (1990) discovered: Romance languages that have auxiliary alternation in compound tenses (depending on the type of the verb, e.g. transitive, unergative, unaccusative) show overt, compulsory participial agreement (PPA).

(16) *Italian*

a. **Le ragazze** sono **arrivate**
 the.F.PL girls.F are arrived.F.PL
 ‘The girls arrived’

b. * **Le ragazze** sono **arrivato**
 the.F.PL girls.F are arrived

French (from Muxí (1996))

c. **La porte** s’ est **ouverte**
 the.F.SG door.F itself is opened.F.SG
 ‘The door opened’

d. * **La porte** s’ est **ouvert**
 the.F.SG door.F itself is opened

Catalan (from Muxí (1996))

e. * **Els nois** han **arribats**
 the.M.PL boys.M have arrived.M.PL

f. **Els nois** han **arribat**
 the.M.PL boys.M have arrived
 ‘The boys arrived’

Spanish (from Muxí (1996))

g. * **La puerta** se ha **abierta**

- the.F.SG door.F itself has opened.F.SG
 h. **La puerta se ha abierto**
 the.F.SG door.F itself has opened
 ‘The door opened’

Portuguese

- i. * **Elas têm vindas**
 they.F.PL have come.F.PL
 j. **Elas têm vindo**
 they.F.PL have come
 ‘They came’

It seems that *wh*-versions of the passive, unaccusative, and reflexive in these languages is based on the properties of the non-*wh*-versions. In other words, if a Romance language exhibits PPA with unaccusatives and their derived subjects, then a *wh*-element acting as the derived subject of an unaccusative verb will also trigger PPA.

(17) *Italian*

- a. **Quante ragazze sono arrivate?**
 how many.F.PL girls.F are arrived.F.PL
 ‘How many girls arrived?’
 b. * **Quante ragazze sono arrivato?**
 how many.F.PL girls.F are arrived

Spanish

- c. * **¿Cuántas mujeres han llegadas?**
 how many.F.PL women.F have arrived.F.PL
 d. **¿Cuántas mujeres han llegado?**
 how many.F.PL women.F have arrived
 ‘How many women arrived?’

In Italian, there is PPA with unaccusative verbs and their derived subjects, generally. As such, if the derived subject is a *wh*-element, then there is still PPA with the unaccusative verb. Conversely, in Spanish, there is no PPA with unaccusative verbs generally. And analogously,

there is still no PPA if the derived subject is a *wh*-element. Without going too much into analysis, this generalization could in fact follow from theory. *Wh*-movement is A'-movement and A'-movement only occurs after A-movement, assuming that the ban on improper movement is correct (Chomsky, 1973; May, 1979; Chomsky, 1981). That means, that whatever processes trigger PPA on certain verbs, e.g. unaccusative verbs, is independent of A'-processes and necessarily precedes those processes.

To summarize this subsection, I present the following chart of the PPA facts for verbs with derived subjects and reflexive verbs.

(18) *PPA with derived subjects and reflexives*

	Italian	French	Catalan	Spanish	Portuguese
Passive	OK	OK	OK	%	OK
Unaccusative	OK	OK	*	*	*
Reflexive	OK	OK	*	*	*

2.1.4 DOs in situ

With DOs in situ, no standard variety of these 5 Romance languages exhibits PPA. I repeat (1-2) below for some minimal evidence of this fact:

Italian: No PPA with DO in-situ

- (19) a. Ho **mangiato le** **mele**
 have.1.SG eaten the.F.PL apples.F
 ‘I have eaten the apples’
- b. * Ho **mangiate le** **mele**
 have.1.SG eaten.F.PL the.F.PL apples.F

French: No PPA with DO in-situ

- (20) a. J' ai **mangé** **les** **pommes**
 I have eaten the.PL apples.F
 'I have eaten the apples'
- b. * J' ai **mangées** **les** **pommes**
 I have eaten.F.PL the.PL apples.F

One exception is that French *wh*-DOs in situ triggering PPA are attested online. However, the frequency is extremely low, which suggests that these cases are typos or processing errors. A Google search for the agreeing case *tu as prise quelle* 'you have taken.F.SG which' only returns 226 results, whereas the non-agreeing case *tu as pris quelle* 'you have taken which' returns 43,400 results.

- (21) a. ...tu as **prise** **quelle** **teinte?**
 ...you have taken.F.SG which.F.SG shade.F
 '...you took which shade (of makeup)?'
 (<<http://www.beaute-test.com/forums/index.php?topic=320426&start=15>>,
 retrieved on May 31, 2014, 18:40)
- b. Tu as **prise** **quelle** **dose** de Levothyrox?
 you have taken.F.SG which.F.SG dose.F of Levothyroxine
 'You took which dose of Levothyroxine?'
 (<<http://www.forum-thyroide.net/index.html?http://www.forum-thyroide.net/phpBB/viewtopic.php?p=353691>>,
 retrieved on May 31, 2014, 18:47)

D'Alessandro and Roberts (2010) have, however, identified at least one Italian dialect (Eastern Abruzzese) that does exhibit PPA with a DO in-situ (see footnote 13), though this is not specific to the DO in-situ. The situation in that dialect is that the past participle agrees with any plural argument, regardless of its structural role, subject or object.

2.1.5 Partitive and adnominal clitics

Interestingly, only three of the Western Romance varieties I'm considering here have partitive and adnominal clitics, and they happen to be the most eastern ones: Italian, French, and Catalan.

My paradigm for this is incomplete as I have not tested adnominal agreement in French nor Catalan.

Of the three, French is cited to not exhibit PPA with its partitive clitic *en* (Belletti, 2006). Italian, on the hand, does exhibit PPA with its partitive clitic *ne* (Belletti, 2006). My Italian consultant, however, does accept cases where the partitive clitic does not accompany PPA (in addition to the cases where it does). According to her, there is an interpretational difference, similar to the one I mention for French in footnote 1, as shown in (22c-d) repeated from (9-10). In (22c), PPA occurs and the partitive is interpreted as a true partitive referring to a presupposed set of boys. In (22d), PPA does not occur and the partitive clitic is treated as a nominal modified by a numeral, with no presupposition. See section 3.1.2 for a brief mention of the related French data and section 5.2 for both French and Italian data.

Catalan does exhibit optional PPA with the partitive clitic *en* (or one of its other forms, *ne*, *n'*, and *'n*), though according to my Catalan consultant, most dialects do not exhibit this kind of PPA. I am unsure if the interpretational difference exhibited in Italian in (22c-d) exists for the Catalan examples.

(22) *Italian* (a-b from (Belletti, 2006), c-d from my consultant)

- a. **Ne** ho **comprate** **molte**
of them.F.PL have.1.SG bought.F.PL many.F.PL
‘I bought many of them’
- b. * **Ne** ho **comprato** **molte**
of them.F.PL have.1.SG bought many.F.PL
- c. Io **ne** ho **visti** **cinque**
I of them.M.PL have seen.M.PL five
‘I saw five of them’ (= ‘I saw five of the students’)
- d. Io **ne** ho **visto** **cinque**
I of them.M.PL have seen five
‘I saw five’ (= ‘I saw five students’)

French (from (Belletti, 2006))

- e. * Il **en** a **repeintes** **deux**

- he of them.F.PL has repainted.F.PL two
 f. Il **en** a **repeint** **deux**
 he of them.F.PL has repainted two
 ‘He repainted two of them’

Catalan

- g. Algunes noies pensen que el Joan **n’** ha **vistes** **tres**
 some.F.PL girls.F think that the John of them.F.PL has seen.F.PL three
 ‘Some girls think that John has seen three of them’
 h. Algunes noies pensen que el Joan **n’** ha **vist** **tres**
 some.F.PL girls.F think that the John of them.F.PL has seen three

Additionally, Italian does optionally exhibit PPA when an adnominal clitic is used, which has the same morphological realization as the partitive clitic, *ne*. As with the Catalan examples, I am unsure if the presence of PPA here or not results in an interpretational difference.

- (23) a. **Ne** ho **letta** **la** **metà**
 of it have.1.SG read.F.SG the.F.SG half.F
 ‘I read half of it’
 b. ? **Ne** ho **letto** **la** **metà**
 of it have.1.SG read the.F.SG half.F
 c. **Ne** ho **consultata** **l’** **opera**
 of his have.1.SG consulted.F.SG the work.F
 ‘I have consulted his work’
 d. **Ne** ho **consultato** **l’** **opera**
 of his have.1.SG consulted the work.F

Upon closer inspection of the data above, it seems that the agreement on the past participle is ultimately with the DO in-situ, even though I established that DOs in situ do not trigger PPA. The adnominal clitic seems to have a role in triggering PPA in these cases.

To summarize this subsection, I present the following chart of the PPA facts for verbs with derived subjects and reflexive verbs.

(24) *PPA with partitive and adnominal clitics*

	Italian	French	Catalan
Partitive	%	*	%
Adnominal	%	Unsure	Unsure

2.1.6 Summary of the patterns

Below is a table reporting all of the PPA facts that I am aware of, as a summary of all the data in this section. Cells that are dark gray are areas that are impossible, e.g. Spanish and Portuguese do not have partitive nor adnominal clitics. Cells in light gray are only theorized, but very likely to be accurate.

(25) *PPA patterns Italo-Western Romance*

	Italo-Western Romance				
	Western Romance				Proto-Italian
	Ibero-Romance		Gallo-Romance		
	Portuguese	Spanish	Catalan	French	Italian
DO-clitics, 1 st person	*	*	*	%	%
DO-clitics, 2 nd person	*	*	*	%	%
DO-clitics, 3 rd person	*	*	%	%	OK
<i>Wh</i> -DOs (incl. A'-elements)	*	*	*	%	*
Passive subjects	OK	%	OK	OK	OK
Passive <i>wh</i> -subjects	OK	%	OK	OK	OK
Unaccusative subjects	*	*	*	OK	OK
Unaccusative <i>wh</i> -subjects	*	*	*	OK	OK
Reflexive subjects	*	*	*	OK	OK
Reflexive <i>wh</i> -subjects	*	*	*	OK	OK
DOs in situ	*	*	*	*	*
<i>Wh</i> -DOs in situ	*	*	*	*	*
Partitive clitics			%	*	%
Adnominal clitics			%	*	%

Generally, the further west one goes in the Western Romance families, the less PPA one finds¹¹. This also seems to be true for the existence of a partitive/adnominal clitic. Notably, Catalan seems to exhibit a subset of the PPA phenomena in Italian, where it either behaves similarly to Italian or is further down the PPA spectrum. For example, Italian has obligatory 3rd person DO-clitic PPA, but Catalan has optional 3rd person DO-clitic PPA. Additionally, Italian has optional 1st and 2nd person DO-clitic PPA, but Catalan does not exhibit such PPA at all.

2.2 Properties of the clitics

2.2.1 Properties of DO-clitics

In this subsection, I explore some of the properties of DO-clitics in Italian, French, and Catalan. For the most part, the DO-clitics in these languages behave very similarly. For example, the DO-clitics do not support “local” coreference, requiring a reflexive clitic pronoun in such contexts.

(26) *Italian*

- a. * John_i lo_i vedrà
 John him will see
 ‘John_i will see himself_i’

French

- b. * Jean_i le_i verra
 John him will see
 ‘John_i will see himself_i’

Catalan

- c. * [El Joan]_i el_i veurà
 the John him will see

¹¹ I also note that only the eastern-most members of Western Romance that I investigated, namely Italian, French, and Catalan, have partitive clitics. Once we step outside of Western Romance, the generalization does not hold. Romanian, which is grouped under Eastern Romance with the extinct Dalmatian language, exhibits PPA only in the passive (i.e. the agreement with the derived subject). The only auxiliary used is *a avea* ‘to have’ which is derived from Latin *habēre* ‘to have’. This implies that Romanian makes no auxiliary distinction between unergative and transitive verbs on the one hand, and unaccusative verbs on the other. Additionally, Romanian does not seem to have a partitive clitic. Given these three facts, Romanian patterns with Spanish and Portuguese.

‘John_i will see himself_i’

However, the DO-clitics do support “non-local” coreference. This suggests that the DO-clitics are subject to Condition B violations, but not Condition A nor C violations.

(27) *Italian*

- a. John_i pensa che Maria lo_i vedrà
 John thinks that Maria him will see
 ‘John_i thinks that Maria will see him_i’

French

- b. Jean_i pense que Marie le_i verra
 John thinks that Marie him will see
 ‘John_i thinks that Marie will see him_i’

Catalan

- c. [El Joan]_i pensa que la Maria el_i veurà
 the John thinks that the Maria him will see
 ‘John_i thinks that Marie will see him_i’

There are some differences among the three, however. The Italian of my consultants (from the Veneto and Trentino regions in the north) does not allow a bound variable reading for the DO-clitic in pronominalization contexts, i.e. a sloppy reading. Sloppy readings are available in Catalan and French in the same contexts.

(28) *Italian*

- a. [I ladri]_i pensano che la polizia li_i abbia visti e anche [gli
 the thieves think that the police them have seen and also the
 alcolisti]_k lo pensano
 alcoholics it think
 = ‘[The thieves]_i think that the police saw them_i and [the alcoholics]_k think that the
 police saw them_i too’ (strict reading)
 ≠ ‘[The thieves]_i think that the police saw them_i and [the alcoholics]_k think that the
 police saw them_k too’ (sloppy reading)

French

- b. [Les garçons]_i pensent que la police les_i a vus et [lesfilles]_k le
 the boys think that the police them has seen and the girls it
 pensent aussi
 think also
 = ‘[The boys]_i think that the police saw them_i and [the girls]_k think that the police
 saw them_i too’ (strict reading)
 = ‘[The boys]_i think that the police saw them_i and [the girls]_k think that the police
 saw them_k too’ (sloppy reading)

Catalan

- c. [Els lladres]_i pensen que la policia els_i ha enxampat i [els traficants]_k
 the thieves think that the police them has caught and the traffickers
 també ho pensen
 also it think
 = ‘[The thieves]_i think that the police caught them_i and [the traffickers]_k think that
 the police caught them_i too’ (strict reading)
 = ‘[The thieves]_i think that the police caught them_i and [the traffickers]_k think that
 the police caught them_k too’ (sloppy reading)

All three languages can use their DO-clitics as bound variables with quantified expressions.

(29) *Italian*

- a. [Ogni donna]_i pensa che John la_i desidera
 every woman thinks that John her desires
 = $\forall x[x \text{ is a woman} \wedge x \text{ thinks that John desires } x]$

French

- b. [Chaque femme]_i pense que Jean l’_i aime
 every woman thinks that John her loves
 = $\forall x[x \text{ is a woman} \wedge x \text{ thinks that John loves } x]$

Catalan

- c. [Cada dona]_i pensa que el Joan l’_i estima
 every woman thinks that the John her loves
 = $\forall x[x \text{ is a woman} \wedge x \text{ thinks that John loves } x]$

Additionally, these DO-clitics are (obviously) arguments and can act as predicates.

(30) *Italian*

- a. Mio padre è un professore quindi lo sarò anch' io
 my father is a professor thus it will be also I
 'My father is a professor, so I'll be one too'

French

- b. Mon père est professeur donc je le serai aussi
 my father is professor thus I it will be also
 'My father is a professor, so I'll be one too'

Catalan

- c. El meu pare és professor i jo també ho serè
 the my father is professor and I also it will be
 'My father is a professor, and I'll be one too'

The DO-clitics, unlike the partitive clitics, do not support modification, e.g. by numerals or adjectives, as demonstrated with the partitive clitics in the next section.

As I mentioned at the beginning of this section, the DO-clitics across all three languages behave more or less in the same way. The only quality that isn't shared among all three is the ability to support a bound variable (sloppy reading) in at least a VP-ellipsis context. Only French and Catalan support this characteristic, Italian doesn't. These properties are summarized below:

(31) *Properties of DO-clitics*

	Italian	French	Catalan
Local coreference	*	*	*
Non-local coreference	OK	OK	OK
Bound variable (sloppy)	*	OK	OK
Quantifier-bound variable	OK	OK	OK

Argument position (status)	OK	OK	OK
Predicate position (status)	OK	OK	OK
Hosting of nominal modifiers	*	*	*

2.2.2 Properties of partitive clitics

In this subsection, I present a similar set of data involving the partitive clitics. Despite the existence of these clitics in all three languages, as seen in section 2.1.5, these partitive clitics behave differently with respect to PPA. As I show in this subsection, the partitive clitics also behave differently with respect to their syntactic and semantic properties.

With respect to coreference, the partitive clitics must first and foremost be associated with either a partitive reading, though an indefinite reading is possible at times. The only language of the three that does not support coreference in this way is Italian, which requires a separate strategy.

(32) *Italian*

- a. * [Dieci studenti]_i ne_i odieranno tre
 ten students of them will hate three
- b. [Dieci studenti]_i odieranno tre di loro_i
 ten students will hate three of them
 ‘[Ten students]_i will hate three of themselves_i’
- c. * [Dieci studenti]_i pensano che Mary ne_i odierà tre
 ten students think that Mary of them will hate three
- d. [Dieci studenti]_i pensano che Mary odierà tre di loro_i
 ten students think that Mary will hate three of them
 ‘[Ten students]_i think that Mary will hate three of them_i’

French

- e. ? [Dix étudiants]_i en_i détesteront trois
 ten students of them will hate three
 ‘[Ten students]_i will hate three of themselves_i’

- f. [Dix étudiants]_i pensent que Mary en_i détestera trois
 ten students think that Mary of them will hate three
 ‘[Ten students]_i think that Mary will hate three of them_i’

Catalan

- g. [Deu estudiants]_i n’_i odiaran tres
 ten student of them will hate three
 ‘[Ten students]_i will hate three of themselves_i’
- h. [Deu estudiants]_i pensen que la Maria n’_i odiarà tres
 ten student think that the Maria of them will hate three
 ‘[Ten students]_i think that Maria will hate three of them_i’

In addition to coreference, the partitive clitics in French and Catalan support bound variable readings (sloppy readings in VP-ellipsis contexts), but not with quantified expressions. The Italian partitive clitic does not support either one and thus differs from French and Catalan even more.

(33) *French*

- a. [Les voleurs]_i pensent que la police en_i a vu certains et
 the thieves think that the police of them has seen some and
 [les alcooliques]_k le pensent aussi
 the alcoholics it think also
 = ‘[The thieves]_i think that the police saw some of them_i and [the alcoholics]_k think that the police saw some of them_i too’ (strict reading)
 = ‘[The thieves]_i think that the police saw some of them_i and [the alcoholics]_k think that the police saw some of them_k too’ (sloppy reading)
- b. * [Chaque femme]_i pense que Jean en’_i aime
 every woman thinks that John her loves
 ‘[Every woman]_i thinks that John loves her_i’

Catalan

- c. [Alguns nois]_i pensen que la policia en_i va veure alguns i
 some boys think that the police of them go see some and
 algunes noies també ho pensen

some girls also it think

= '[Some boys]_i think that the police saw some of them_i and [some girls]_k think that the police saw some of them_i too' (strict reading)

= '[Some boys]_i think that the police saw some of them_i and [some girls]_k think that the police saw some of them_k too' (sloppy reading)

- d. * [Cada dona]_i pensa que el Joan en_i estima
 every woman thinks that the John her loves
 '[Every woman]_i thinks that John loves her_i'

One notable characteristic of the partitive clitic is that it can strand adnominal material. This is normally demonstrated with numerals and adjectives. There is one peculiar difference between Italian and Catalan on the one hand, and French on the other, when both a numeral and an adjective are stranded. In Italian and Catalan, a preposition meaning 'of' or 'from', *di* (Italian) or *de* (Catalan), must appear in between the numeral and the adjective.

(34) *Italian*

- a. Io ne ho due di grandi
 I of them.M.PL have two of big.M.PL
 'I have two big ones'

French

- b. J' en ai deux grands
 I of them.M.PL have two big.M.PL
 'I have two big ones'

Catalan

- c. Jo en tinc dos de grossos
 I of them.M.PL have two of big.M.PL
 'I have two big ones'

As one can see, Italian and Catalan group into one class where the partitive clitic must strand a numeral and an adjective with an intervening preposition. Another class exists between French and Catalan where the partitive clitic can support bound variable readings (sloppy readings) as well as coreference (assuming it is a partitive reading). As mentioned in section 2.1.5, Italian and

Catalan have optional PPA with the partitive clitic, but not French. Perhaps there is a link between the Italian and Catalan class discovered here and the Italian and Catalan class discovered in the previous section.

A summary of the partitive data is provided in the table below:

(35) *Properties of partitive clitics*

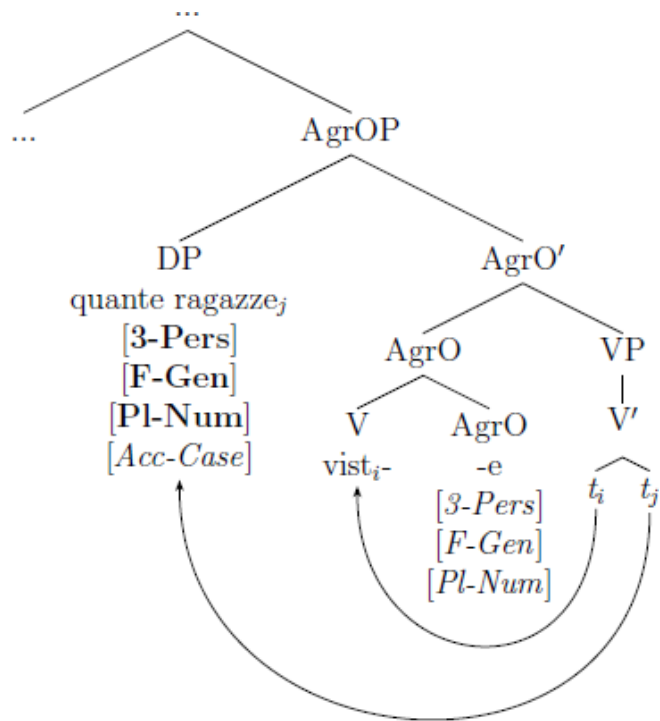
	Italian	French	Catalan
Local coreference	*	*	*
Non-local coreference	*	?	OK
Bound variable (sloppy)	*	OK	OK
Quantifier-bound variable	*	*	*
Hosting of nominal modifiers	OK	OK	OK

3 Previous approaches to PPA

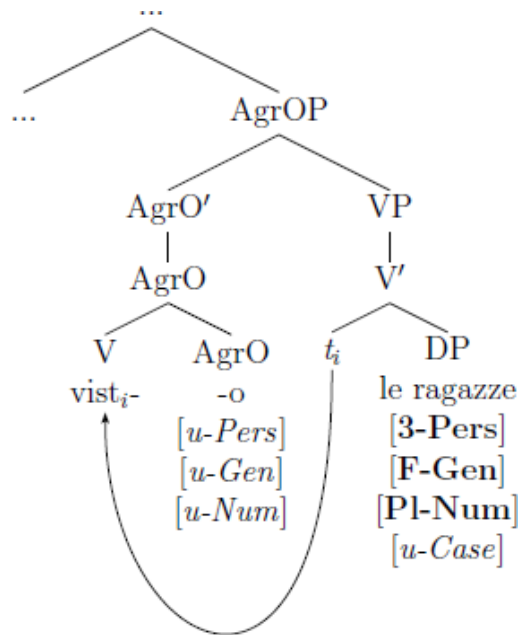
In this chapter, I present two recent approaches to PPA in Romance as background: D'Alessandro and Roberts (2008) in section 3.1 and Rocquet (2010) in section 3.2. Both of these approaches are minimalist upgrades to Kayne's (1989) original analysis of PPA in the Romance languages. In Kayne's analysis, an internal argument (IA) that moved to Spec TP would have had to pass through Spec AgrOP within the functional layers of the VP. When such an IA landed in Spec AgrOP, agreement took place because the spec-head configuration was the only configuration in which agreement occurred. This (spec-head) agreement between the IA and AgrO resulted in the morphophonological realization of agreement on the past participle, i.e. PPA as in (36a). Conversely, an IA that remained *in situ* would not have triggered PPA. This IA would not land in or pass through Spec AgrOP, thus correctly never establishing the configuration for (spec-head) agreement with AgrO to occur as in (36b). (36) shows the representation¹² under X-bar theory at the stage where enough movements have occurred to demonstrate my point.

(36) a. IA passing through Spec AgrOP obtains agreement

¹² *Italicized* features are uninterpretable and **bolded** ones are interpretable. Solid arrows indicate movement and dotted arrows indicate Agree from Probe to Goal. Deleted features are not indicated for the sake of readability.



b. IA in situ does not obtain agreement



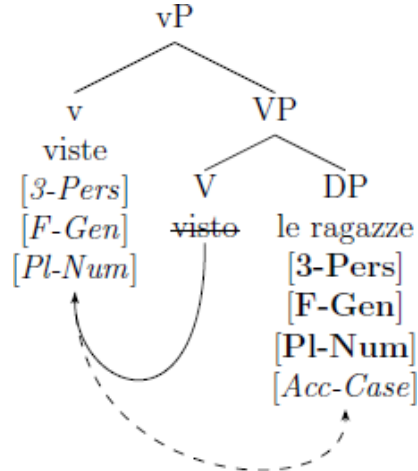
However, such an analysis relying on the notion of spec-head agreement is untenable today given the current formulation of Agree (Chomsky, 2001a; Chomsky, 2001b). The version of agreement in Kayne established a strong link between agreement and movement. Movement was often necessary to create the spec-head configuration in which agreement could occur. For example, an external argument (EA) moved from Spec vP to Spec TP so that it could establish a

spec-head configuration. Once this was done, agreement could take place and the EA would receive Case and T would have its EPP feature checked.

In contrast, the current formulation of Agree is independent of movement (Move, a.k.a. internal Merge). Agree can operate at a distance, i.e. it is not restricted to spec-head configurations. Following the steps outlined in D'Alessandro (2010a), translating Kayne's generalization to Minimalism results in an incorrect prediction¹³.

Under standard assumptions, the basic verbal spine is TP-vP-VP. AgrO's function is now subsumed by vP. As such, it is v that has unvalued uninterpretable features which must Probe for an appropriate Goal, namely the IA. Since Agree does not need to occur in spec-head configurations, Agree takes place at a distance and the relevant features on v and the IA are valued and deleted. If the probes on v do not have the EPP property, then the IA stays in situ. This predicts that a DO in-situ would trigger PPA, which is the incorrect prediction, as shown in a Minimalist tree in (37) at the relevant stage in the derivation.

(37) With Agree, DOs in situ would trigger PPA



3.1 D'Alessandro and Roberts (2008)

3.1.1 The morphophonological realization of agreement

¹³ As mentioned by Norbert Corver, there are still many syntacticians who believe in spec-head agreement, including Mark Baker and Sandra Chung.

Seeing the problem with Kayne's analysis, which relies on the almost inseparable bond between agreement and movement, D'Alessandro and Roberts (2008) (henceforth DAR) sought to explain Italian PPA using phase theory. The core of their analysis rests on the condition in (38, their 11 and 12), which seems to hold at Spell Out to PF:

(38) Condition on the Morphophonological Realization of Agreement (CMRA)

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.

XP is the complement of a minimal phase H iff there is no distinct phase head H' contained in XP whose complement YP contains P and G.¹⁴

The first clause is simply a structure-based PF condition that determines if PPA is overtly realized or not. The second clause is a formulation that follows from the first version of Chomsky (2000)'s Phase Impenetrability Condition (PIC1). Underlying these two clauses is Uriagereka (1999)'s Multiple Spell-Out. Essentially, the derivation proceeds in phases and sends material to PF and LF in chunks, each one corresponding to a phase. With respect to PPA, the CMRA states that PPA occurs if the DP and the past participle have not been spelled out in different phases.

DAR assume that the verbal spine contains at least the following heads: C-T- $v_{(Aux)}$ - v_{Prt} -V. For them, $v_{(Aux)}$ is where the auxiliary, *essere* 'to be' or *avere* 'to have', is merged. $v_{(Aux)}$ undergoes subsequent v-to-T movement, as is expected from the verb-raising which is characteristic of Italian (and other Romance languages like French). V is where the lexical verb is merged (past

¹⁴ One stipulation that must be made under DAR's system is that what is normally called a defective phase head does not count as a phase head for (32). Therefore, a "DAR" phase head is crucially a non-defective phase head. Throughout this thesis, I will treat being a non-defective phase head and not being a (DAR) phase head as equivalent, when only talking about phase heads. Obviously, heads that are traditionally non-phase heads, e.g. VP and NP, are excluded from this.

participle included). After being merged, V raises to v_{Prt} ¹⁵, which is a phase head¹⁶. This means that what is standardly taken to be v is actually v_{Prt} in their analysis. As such, standard assumptions for what is standardly taken to be v apply to v_{Prt} : Spec $v_{\text{Prt}}\text{P}$ is where the EA is merged. This means that if v_{Prt} is unaccusative or passive (i.e. it lacks an EA), then it cannot assign accusative case à la Burzio's generalization (Burzio, 1986). Additionally, such a v_{Prt} is a defective phase head. In other words, it does not fall under the PIC. This allows elements to pass over v_{Prt} without the need to land in Spec $v_{\text{Prt}}\text{P}$ in order to avoid being spelled out too early in a lower phase.

I now demonstrate how the CMRA derives morphophonological agreement in Italian unaccusative (and also passive) verbs (39), transitive verbs with a DO in-situ (40), and transitive verbs with a DO-clitic (41). In (39-41), XP labels corresponding to non-defective phases are **bolded** and underlined.

For an unaccusative (or a passive) verb in (39), v_{Prt} is a defective phase because it has no EA. As such, its IA does not receive accusative case à la Burzio's generalization, and must receive nominative case from T. In this case, this entails the movement of the IA to Spec TP given that T's probes have the EPP property. The IA therefore ends up in Spec TP, presumably without an intermediate stop in Spec $v_{\text{Prt}}\text{P}$ since v_{Prt} is a defective phase head. The IA does not (need to) stop in Spec $v\text{P}$ since it does not seem to be a phase according to DAR. As for V, it ends up in v_{Prt} . Since v_{Prt} is a defective phase head, this means that the minimal phase head containing both the IA and v_{Prt} is C. Given this, the CMRA predicts that there will be morphophonological

¹⁵ This movement is shown through adverb placement. In (ia-b), the active transitive past participle *accolto* 'received' must raise over the manner adverb *bene* 'well'. Since the auxiliary verb *hanno* 'have' resides in T, the lexical verb (and past participle) *accolto* must be in some higher functional projection of V, namely $v_{(\text{Prt})}$.

- (ii) a. Hanno accolto bene il suo spettacolo solo loro
 have.3.PL received well the.M.SG his.M.SG show.M.SG only they
 'They alone have received his show well'
- b. * Hanno bene accolto il suo spettacolo solo loro
 have.3.PL well received the.M.SG his.M.SG show.M.SG only they

¹⁶ For DAR, it is assumed that v_{Prt} is a specific instantiation of v , i.e. it is v , but its label simply reflects that it hosts features that are

3.1.2 French problems and A'-movement

Despite the empirical coverage and conceptual attractiveness of leaving spec-head agreement behind in lieu of a phase-based solution, there are several issues to be addressed. In this subsection, I address problems found in the interaction of DAR's system with A'-movement and French.

Looking back at the case of a DO in-situ (40), there is undoubtedly a copy of the past participle inside the VP. Since (a copy of) the past participle and the DO in-situ are in the domain of the same minimal phase head, v_{Prt} , we would expect there to be morphophonological agreement via (38). However, as we saw above, this is not true. The crucial stipulation here is that only spelled out copies are relevant for the CMRA. Since the copy of the past participle in V is not spelled out in VP as the DO in-situ is, this copy is not relevant for the CMRA. A second stipulation must then be made about which copies are relevant for PF with respect to the CMRA: the relevant copies are the ones that are given an overt spell out¹⁷. This stipulation follows from normal expectations of PF and so is independently supported. However, the situation becomes far more muddled when A'-movement is considered.

The main instance of A'-movement considered is that of *wh*-movement, though, as far as I'm aware, similar facts hold for topicalization as in (60a, see page XX). According to DAR, *wh*-DOs do not trigger PPA because the agreement relation in the CMRA only holds on the A-chain. In this case, the A-chain is limited only to the single copy residing *in situ*. Accordingly, the other copies at Spec $v_{\text{Prt}}\text{P}$ and Spec CP form the A'-chain, which crucially does not express this agreement relation. As such, the A'-chain is not relevant for the CMRA. Therefore, all the copies in that chain are not candidates for triggering PPA, even though there is a copy at Spec $v_{\text{Prt}}\text{P}$ which is within the same phase domain as the past participle.

¹⁷ Norbert Corver notes that it is indeed strange to have a condition that refers to only phonologically visible material. Among the phenomena which challenge this condition, the most notable is *pro* in Italian and Spanish, which enter agreement relations with finite verbs. Additionally, the copy of a displaced *wh*-subject left in Spec TP is in an agreement relation with the finite verb.

This, however, does not hold for French, which does exhibit PPA with A'-elements, including *wh*-DOs. If the difference comes down to the treatment of A- and A'-chains, i.e. a French A-chain can transfer the relevant agreement relation to an A'-chain while Italian cannot, then we run into a variation problem. Under the assumption that all variation exists at levels higher (and lower) than narrow syntax, e.g. morphology, phonology and the lexicon, then the varying treatment of A-chains and A'-chains in French and Italian is unexpected and untenable.

Aside from the issue of *wh*-DOs in Italian (and French), it is not actually the case that all *wh*-elements fail to trigger PPA. A *wh*-DO that becomes the derived subject of an unaccusative or passive verb does trigger PPA. Again, DAR's appeal to the difference between A-chains and A'-chains provides a suitable but not watertight explanation. In this case, the copies in the A-chain are in Spec TP and the base position (the complement of VP). (There is presumably no copy in Spec v_{PrT} P since v_{PrT} is defective and does not force the *wh*-element to land in its specifier along the way for phase-related reasons). The A'-chain consists of just the copy in Spec CP. Assuming the stipulation above that the relevant copies for PF are the ones that are spelled out, we would expect that the copy in Spec CP is the one relevant for the CMRA. Since it is outside the minimal domain of the phase head C, in which the past participle resides, we would not expect PPA. This is, however, not the case.

- (42) a. Quanti ragazzi sono arrivate
 how many girls are arrived
 ‘How many girls arrived?’
 b. TREE

Thus, the PPA requirement of an element being sent out in the same application of Spell Out as the past participle does not hold here. In fact, it seems that one of the covert copies is the one responsible for triggering PPA. (Presumably, this is the one in Spec TP since it is the one in the domain of the same minimal phase head as the overtly spelled out copy of the past participle residing in v_{PrT}). However, this is in direct contradiction to the stipulation that we made for DOs in-situ to prevent PPA with a covert copy of the past participle.

Moving on from the issue of A'-elements and the French treatment of these elements, I turn to DAR's PF condition on the morphophonological realization of agreement in (38). This condition

suggests that the morphophonological realization of agreement at PF does not reflect any difference in the interpretation of the same structure at LF. This is of course, assuming that the same structures are sent to both PF and LF. If we transfer their system to French, we see that PPA does actually result in an interpretational difference in both Italian (22c-d) and French below (Belletti, 2006; Obenauer, 1992; Obenauer, 1994; Déprez, 1998).

- (43) a. **Combien de fautes** a-t-elle **faites?**
 how many mistakes.F.PL have.3.SG-t-she made.F.PL
 ‘How many mistakes has she made?’
- b. **Combien de fautes** a-t-elle **fait?**
 how many mistakes..PL have.3.SG-t-she made

In (43a), which has PPA, there is a presupposed set of specific typical mistakes that she could have made. In (43b), which does not have PPA, no such presupposition exists. Assuming similar derivations in both (43a) and (43b), where the differences in the derivation are non-structural, (43) suggests that PPA is a syntactic phenomenon since it creates an interpretational difference at LF (and a corresponding morphophonological difference at PF). If PPA were purely a morphophonological phenomenon at PF, then we would not expect the interpretational difference at LF¹⁸.

As we can see, taking the French data into account, as well as the facts regarding A'-elements, DAR's treatment of PPA is inadequate if we seek a uniform cross-linguistic treatment of PPA. Since PPA seems to be a syntactic phenomenon, then the variation we see between French and Italian, as exemplified in the contrast in (7-8), should not be relayed to variation at PF as they have done with (38). Rather, it should be derived from variation in the feature specifications of French and Italian elements that take part in PPA with *wh*-DOs, assuming that there is no variation in the syntactic component.

3.1.3 Conceptual choices and issues

¹⁸ Norbert Corver notes that some semantic properties such as presuppositionality could possibly be pragmatic in nature. In this case, one could appeal to the idea that some pragmatic notions are defined at PF.

One choice that DAR make is the use of Chomsky's PIC1 and not PIC2 to fuel the CMRA. I have to ask why PIC1 is picked over PIC2 as both have merits of their own and the choice of one over the other cannot be for the simple reason of making one's theory work (though that may in fact be evidence in of itself for choosing one over the other)¹⁹.

Lastly, DAR rest on the assumption that PF cares about realizing morphological agreement in certain cases over others²⁰. I pose the question of why PF would care about realizing agreement within the same phase. If agreement is the spell out of features which have valued themselves by probing for a Goal, there is no *a priori* reason why the location of the Goal (with respect to the Probes) should matter. The features have been valued (and possibly deleted). It does not seem

¹⁹ Note that DAR do not directly reference PIC1, though it does underlie their analysis. Specifically, they reference merely the phase domain, i.e. the *c*-command domain (= the complement) of the phase head. If we were to modify the CMRA to reference the phase domain of the *next* phase head, which would reflect PIC2, then we would have this:

(iii) **Condition on the Morphophonological Realization of Agreement 2 (CMRA2)**

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 second-most minimal phase head H.

XP is the complement of the second-most minimal phase H iff there is exactly one distinct phase head H' contained in XP whose complement YP contains P and G.

In (iii), the issue of how the topmost phase is spelled out under PIC2 remains. I leave this to a stipulation that essentially reads: "The topmost phase H triggers Spell Out on all unspelled-out material once there are no more elements in the numeration, assuming that the numeration contains only the elements to be merged into the syntactic structure."

CMRA2 is essentially the same as CMRA1. Take DOs in situ for example. The past participle is in the complement of the second-most minimal phase head H which dominates C (which means this is actually non-existent if no other phase head actually dominates C). The DO in situ is in the complement of the second-most minimal phase head C. CMRA2 behaves as CMRA1 does in that both the past participle and DO in situ are still in different phase domains. As such, no PPA obtains. In fact, if some stipulation is made to let C be the relevant phase head that contains the past participle, then we incorrectly get PPA with the DO in situ.

²⁰ Craig Thiersch notes that in languages like Lardil, all elements within a VP are marked for tense. It seems that in these languages, no distinction among the elements is made at PF with regard to the morphophonological realization of agreement.

efficient (nor expressive) for a system to have the ability to create agreement relations that *do* have overt PF spell outs, but choose not to spell them out.

Now, suppose that morphophonological agreement is a marker of what has agreed with what. This is not a left-field assumption since PPA on the past participle expresses an agreement relation with the object (and subjects derived from them), not the (external) subject. In this case, morphophonological agreement disambiguates between the potential DPs that could be in an agreement relation with the past participle. According to DAR's PF condition, only intra-phasal agreement relations receive an overt morphophonological realization. Inter-phasal agreement relations are barred from this. Conceptually, in terms of processing, either reading or listening, it would make more sense if agreement were overtly realized if the two elements inter-phasal.

Essentially, if two elements A and B are in an agreement relation, and A moves out of the phase that contains B, then morphophonological agreement would be more helpful in identifying A as being in an agreement relationship with B since they are linearly further away from each other. Two elements C and D in an agreement relation within the same phase may be more easily construed in an agreement relation due to their linear proximity. Thus, if there was ever a PF condition on morphophonological agreement and it had to bar certain cases of such spell outs, I would expect it to bar the Spell Out of intra-phasal (i.e. usually "linearly local") agreement relations.

DAR's analysis has many merits, the largest of which is the replacement of the antiquated notion of spec-head agreement from PPA in Italian with the more modern phase theory. Despite this, I have shown that an attempt to extend their analysis to French, which is linguistically related to Italian, fails to account for such patterns. Additionally, their implementation of phase theory has consequences for their derivations that they overlooked or failed to address. Finally, the conceptual backing of their analysis is based on unjustified assumptions regarding the operation of PF.

3.2 Rocquet (2010)

3.2.1 Phases and accessible case

Rocquet (2010) undertakes the same task that DAR assume, but with French instead of Italian. Like DAR, Rocquet uses a phase-based approach to tackle PPA phenomena, though by appealing to the notion of *accessible case*²¹, which I touch upon later in this section. The machine behind Rocquet's analysis is her condition on the realization of morphophonological agreement.

(46) Condition on the Occurrence of PPA (COP)

PPA occurs at PF iff the DP trigger of agreement on the past-participle (or one of its copies):

- i. bears accessible case, and
- ii. is in the same Spell Out domain as the past-participle, and
- iii. is the highest (left-most) DP bearing accessible case in this Spell Out domain

The striking similarity between (46) and (38) is the use of Spell Out domains based on PIC1 (Chomsky, 2000) in an ultimately PF-based condition. Despite the similarities, these proposed conditions differ in their application domains as I demonstrate below on the French examples that Rocquet provides.

Rocquet has mostly similar assumptions to DAR, though the labels and functionality may differ. First, she assumes that the verbal spine consists of the following heads: C-T-ErgP-vPrt-V. I comment on each of these heads in turn as I deem it necessary.

For Rocquet, ErgP is an ergative preposition. She borrows this from the fact that languages with ergative-case marking generally lack an auxiliary use of the verb 'to have' (Mahajan, 1997). The converse observation is that languages that lack ergative-case marking often have the verb 'to have' as an auxiliary. As how allophones typically behave in phonology, the complementary distribution of auxiliary 'have' and ergative-case marking led Mahajan and Rocquet to believe that these two derive from the same source, which is an ergative preposition, ErgP. In Mahajan, an ErgPP is merged as the specifier of VP (note that this differs from Rocquet's implementation). The EA now resides in Spec ErgPP instead of Spec vP. Since Hindi is a verb-final language,

²¹ *Accessible case* is not defined anywhere in this thesis simply because Rocquet herself does not define it. A crude distinction that Rocquet implies is that structural cases (e.g. nominative and accusative) are accessible, but non-structural cases (e.g. dative) are not.

ErgP is not linearly adjacent to V. As a result, ErgP suffixes onto its specifier as ergative case marking.

$$(47) \quad [_{TP} [_{T'} [_{VP} [_{ErgPP} EA [_{ErgP'} ErgP] [_{V'} IA V]]] T]]$$

However, in French, which is a verb-initial language, the ErgP head is linearly adjacent to V and can therefore incorporate into V as in (42).

$$(48) \quad [_{TP} [_{T'} T [_{VP} [_{ErgPP} EA [_{ErgP'} ErgP] [_{V'} V IA]]]]]$$

V in the case of compound tenses is taken to be *être* ‘to be’. When ErgP incorporates into V, the resulting complex becomes *avoir* ‘to have’, which is along the lines of Freeze (1992), Kayne (1993), and of course Mahajan (1997). As such, there is no ergative case marking on the EA.

Rocquet’s implementation differs in that her ErgPP is not in the specifier of VP but rather, it is ErgP that selects the v(Prt)P. In this sense, ErgP has taken on the traditional role of v. Unlike DAR, Rocquet also takes the auxiliary to be merged in T, which means that to form the auxiliary *avoir* ‘to have’, ErgP must incorporate into T. Lastly, V is where the past participle starts out and vPrt is where the past participle ends up via head movement.

Returning to PPA, I now demonstrate Rocquet’s system on an unaccusative verb (which subsumes passive verbs as well), a transitive verb with a DO in-situ, and a transitive verb with a DO-clitic. In (49), the verb starts out in V (as an infinitive) and raises to vPrt where it receives past participle morphology. Since vPrt is a defective phase (it lacks an EA), the IA, *Marie*, is allowed to raise directly to Spec TP where it receives nominative Case. Now, according to Rocquet and the COP, nominative Case is accessible case, so the first condition is satisfied. The second condition is also satisfied since both the derived subject and the past participle are in the same Spell Out domain, namely that of C. Even if vPrt were a non-defective phase, and the IA had passed through the escape hatch of Spec vPrtP, both would still be in the same Spell Out domain. This fact is relevant for wh-DOs and other A'-moved elements. Lastly, since the derived subject is the only DP with accessible case in this Spell Out domain, it means that the derived subject is also the highest one. Therefore, the derived subject satisfies the third condition and we obtain PPA.

- (49) [CP \emptyset [_{TP} Marie_[NOM] [_{T'} est [_{vPrtP} arriv-ée [_{VP} arriv- Marie]]]]]
-

Moving on to a transitive verb with a DO in-situ, we find ourselves in a very different situation. Similarly, the V moves into vPrt. Since the verb is transitive, vPrt is a non-defective phase and it triggers the Spell Out of its complement VP, including the DO in-situ which has already received accusative Case and has no reason to be extracted from VP. This dooms the possibility of obtaining PPA since the past participle is in a separate Spell Out domain (according to most analyses, this would be that of C, but according to Rocquet as I explain below, this would be that of ErgP). In short, (46ii) can never be satisfied given that it is the DO in-situ that stands in an agreement relation with the past participle.

- (50) [CP \emptyset [_{TP} Nous_[NOM] [_{T'} avons (=ErgP+sommes) [ErgPP nous [_{ErgP'} ErgP [vPrtP achet-é [_{VP} achet- [_{DP} la peinture]_[ACC]]]]]]]]

Lastly, there is the case of a transitive verb with a DO-clitic. Under the assumption that the DO clitic is merged as an IA of the VP, the derivation proceeds as it normally does, namely with V moving to vPrt, which is a non-defective phase. Since clitics presumably need to find a host, the DO-clitic raises to Spec vPrtP to avoid being spelled out with the VP. In this position, Rocquet claims that ErgP assigns accessible case to the clitic²². This mechanism is supposedly a remnant of an Old Romance construction where the verb *habēre* ‘to have’ takes a small clause containing a past participle as an adjectival past participle with its IA. The IA moves leftwards to receive case from the main verb since the adjectival past participle cannot assign case to the IA²³.

- (51) a. Habeō epistulam scrīptam
 have.1.SG letter.F.SG.ACC written.F.SG.ACC
 ‘I have a written letter’ (= ‘I have a letter which is written’)

²² As pointed out by Craig Thiersch, Rocquet oddly does not mention the case assigning ability of the main verb. This is because under Rocquet’s analysis, the main verb only assigns some sort of inaccessible case to DOs in situ only. She does not call it inherent case since inherent case is never assigned to IAs.

²³ This move, as suggested by Norbert Corver, is largely unmotivated. There is almost no distinction between complements and specifiers as they are all arguments of the selecting head.

- b. [_{VP} habēre [_{AP} IA [_{A'} A ~~IA~~]]]

From there, the DO-clitic raises through Spec ErgPP and ends up in the T-field, which according to Rocquet is a non-defective phase. The reason for this is to explain why subjects of transitive and ergative verbs do not trigger PPA. Now, since ErgP is a non-defective phase, it spells out its complement vPrtP. Excluding the already spelled out VP (as part of the vPrt phase), the only material spelled out in this cycle are the copy of the DO clitic in Spec vPrtP and the past participle itself in vPrt. Going through the conditions in the COP, the DO-clitic bears accessible case (from ErgP), the DO-clitic and the past participle are in the same Spell Out domain, and the DO-clitic is the only and therefore the highest DP with accessible case. Given this, we correctly obtain PPA.

3.2.2 Merits and issues

While I do not go through the cross-linguistic evidence that Rocquet provided (Slavic evidence), I will note that her account shows great parallelism with the Slavic languages. Additionally, they tackle the optionality of French PPA by appealing to the development of French from Proto-Romance/Vulgar Latin in which various periphrastic constructions converged on a few very similar surface structures with supposedly different syntactic mechanisms underneath. With these thoughts aside, I now discuss various portions of Rocquet's proposal below.

With regard to the COP, the notion of accessible case seems to be tied to (abstract/structural) Case, but there is no one-to-one correspondence here. In fact, she provides no definition of accessible case and there is certainly no list of cases that are "accessible". Rocquet does say that dative case is not accessible and this is confirmed by the fact that dative clitics do not trigger PPA in French. However, if the treatment of case is a part of narrow syntax, then we would expect that dative clitics in other languages do not trigger PPA. This is not true as Italian does allow PPA with (some²⁴) dative clitics:

²⁴ The dative here is a benefactive dative according to Craig Thiersch. Additionally, this dative is reflexive and reflexives normally trigger PPA anyway. It is worthwhile to note that normal datives do not trigger PPA:

- (iv) a. **Le** ho **dato** il cane

- (52) Maria **si** è **lavata** i capelli
 Maria to herself is washed.F.SG the hair
 ‘Maria washed her hair’

The (reflexive) dative clitic *si* triggers F.SG agreement on the past participle, even though according to Rocquet, dative is an inaccessible case. This data also bears upon (46iii) which states that it is the highest DP that has accessible case in the Spell Out domain of the past participle that triggers PPA. This again, is not true, as we can see in (53).

- (53) a. Maria se li è lavati
 Maria to herself them.M.PL is washed.M.PL
 ‘Maria washed them’
 b. * Maria se li è lavata
 Maria to herself them.M.PL is washed.F.SG

Here, both the dative clitic and the DO-clitic appear, crucially with the dative clitic being the highest DP with accessible case, given (52) above. This would suggest that the dative clitic is the one that would trigger PPA on the past participle, yet it is the lower DO-clitic that does this.

The one merit of Rocquet’s PF condition is that it does not discriminate as strongly as DAR’s does when it comes to the relevant copies for manifesting PPA. Recall in DAR’s condition in (38), it is implicitly only the spelled out copies (normally, the highest ones) that are relevant for the condition of being spelled out in the same domain. Thus, the covert copies of the past participle and its IA in VP do not count when PF evaluates whether or not morphophonological agreement is realized overtly. However, in Rocquet’s implementation, covert copies are absolutely necessary to realize PPA with DO-clitics (and presumably A'-moved elements like wh-DOs). This is because the only time the DO-clitic and the past participle are spelled out in the

-
- to her have.1.SG given the dog
 ‘I gave her the dog’
 b. * **Le** ho **data** il cane
 to her have.1.SG given.F.SG the dog

same is in the spell out after the ErgP phase, which only contains those two elements in Spec vPrtP and the vPrt head itself, both of which are covert.

Regarding Rocquet's assumptions about the verbal spine, there are a few problems. One conclusion of ergative marking being tied to head directionality as a result of the presence of ErgP, as proposed in Mahajan (1997) and Rocquet, is that there should not be no languages that are head-initial and display ergative case marking at the same time. This is because only two options regarding these properties are available (assuming that only left specifiers exist):

- (54) a. Head-initial = auxiliary 'to have' due to ErgP incorporating into V
 [VP [ErgPP EA [ErgP' ErgP]] [v' V IA]]
- b. Head-final = ergative marking due to ErgP suffixing onto EA
 [VP [ErgPP EA [ErgP' ErgP]] [v' IA V]]

This is however, not true. There do exist languages that are head-initial and display ergative marking, notably on the World Atlas of Language Structures (WALS). (The main query results are at http://wals.info/combinations/83A_98A#2/25.5/148.9 (for full noun phrases) and http://wals.info/combinations/83A_99A#2/25.5/148.9 (for pronouns), both under "VO / Ergative - absolutive"). Some examples include *Tukang Besi* and *Zoque* (Copainalá). If the WALS data is not convincing since it has a tendency to base its categorizations off of surface structures and orders, then there is at least Chung (1994) who claims that Chamorro is a head-initial language and exhibits the ergative-absolutive distinction.

Moreover, one will notice that Rocquet actually changed Mahajan's implementation from having ErgPP in Spec V(Prt)P to having ErgP being a head that selects vPrtP. This change, while helpful for Rocquet, actually demolishes the original distinction between Hindi and French, head-final and head-initial, and therefore, ergative marking and auxiliary 'to have'.

- (55) a. Head-initial = auxiliary 'to have' due to ErgP incorporating into V²⁵
 [ErgPP EA [ErgP' ErgP [VP V IA]]]
- b. Head-final = auxiliary 'to have' due to ErgP incorporating into V

²⁵ If this incorporation is syntactic lowering, then this is impossible. However, if it were a PF operation, similar to affix hopping in English, then this could be maintained.

[_{ErgPP} EA [_{ErgP} [_{vP} IA V] ErgP]]

While (55a) works for French, the corresponding head-final structure (55b) incorrectly predicts that the ErgP incorporates into V, resulting in auxiliary ‘to have’ instead of ergative marking.

My last comments on Rocquet’s system concern the existence of ErgP, crucially as a non-defective phase head. According to Rocquet, ErgP and vPrt are both non-defective phase heads, as long as V is transitive. First, ErgP does not represent a sizeable chunk of syntactic material. Assuming that the relevant chunk of any phase head to be sent to the interfaces is that phase’s complement, the traditional phase heads C and v send out more material than ErgP would. C has the entire verbal spine from TP-to-v in its Spell Out domain, including all sorts of verbal projections (= features), including, but not limited to, tense, aspect, and voice. v has the entire lexical portion of the verbal spine as well as any IAs. However, for ErgP, the only material it would send to PF and LF is the edge of vPrtP, which overtly hosts just the past participle. Additionally, it has been said that the phases correspond to semantically interpretable chunks of syntactic structure. For example, the v phase spells out at least the entire VP, which is an entire semantic predicate, consisting of the verb and its IAs. The C phase spells out the entire TP which contains the subject, forming the basis of the entire proposition. ErgP, on the other hand, has no obvious semantic correlate.

Lastly, with the introduction of ErgP with all transitive verbs and unergative verbs, the link between transitivity/unergativity and phasehood is lost. Under normal assumptions with a vP and a VP, v is generally only a non-defective phase if it has an EA. (Additionally, v can generally only assign accusative Case if it has an EA). Theoretically, a verb does not need to be defined for transitivity/unergativity or unaccusativity to predict the phasehood of that verb’s v projection. Rather, all that is needed to predict the phasehood of v is the existence of an EA.

Under Rocquet’s system, vPrt is only a non-defective phase head if V is transitive/unergative. This means that the phasehood of vPrt depends on the lexical entry of V, as opposed to an external source such as the presence of an EA, which is now merged in Spec ErgPP. Additionally, ErgP is only merged on top of vPrtP if the verb is transitive/unergative. Again, whether the verb is transitive/unergative or not depends solely on the lexical entry of V, and not on the existence of the EA in Spec ErgPP. In this sense, Burzio’s generalization is lost. Instead of

the existence of an EA dictating the internal properties of the verbal spine, i.e. phasehood, transitivity/unergativity (and therefore accusative Case assignment), Rocquet's system has it the other way around: the verb's lexically defined transitivity/unergativity dictates both phasehood and the existence of an EA.

Rocquet's phase-based analysis has many merits in that it utilizes cross-linguistic evidence from both Hindi and the Slavic languages to develop a system that accounts for PPA in French. Additionally, it appeals to French's development from Latin as a way to explain various syntactic mechanisms that drive PPA and its apparent optionality. Despite this, it does run into problems regarding the vagueness of the notion of accessible case as well as its cross-linguistic validity in Italian. Moreover, the addition of a non-defective phase head ErgP in the verbal spine raises a few theoretical questions that challenge its motivation.

3.3 A brief outro

I briefly review the inadequacies of D'Alessandro and Roberts (DAR) (2008) and Rocquet (2010) before moving onto my analysis of the data in chapter 4.

DAR provide a phase-based approach to predicting PPA in Italian. At the core of their analysis is a PF condition that requires the past participle and its DP agreement trigger to be spelled out in the same phase. While it explains the Italian data rather well, covering DO-clitics, DOs in-situ, as well as absolute small clauses, it fails to apply cross-linguistically, most notably to French. Additionally, their analysis implies that the realization of agreement at PF has no effect on the interpretation at LF, which is not true. These points coupled with some assumptions about PF and its role in determining agreement, are issues that ought to be addressed.

Rocquet also provides a similar phase-based approach, but for PPA in French. A similar PF condition rests at the heart of their analysis, requiring the past participle and the DP agreement trigger to be in the same phase and for the DP to have accessible case. The notion of accessible case is vague and undefined and remains one of the weakest points of the analysis. This coupled with the introduction of a non-defective phase head, ErgP, on top of v(Prt) raises questions regarding its existence and necessity. While ErgP was originally grounded in a cross-linguistic comparison between Hindi and French, the changes made to ErgP render it inadequate for Hindi.

Given the above discussion, turning to phase-based morphophonological conditions is not the answer if we seek a model that explains cross-linguistic patterns of PPA. As such, in the following chapter, I explore several options that do not appeal primarily to phases and morphophonological conditions.

4 Stepping back and exploring the options

In this chapter, I remove myself from previous analyses and consider the generalizations and the options that stem from them. Generally, in each subsequent section, I explore each option and evaluate its potential in answering the question of why PPA differs from language to language.

4.1 Generalizations about PPA

In chapter 3, I pointed out various problems with D'Alessandro and Robert's (DAR) and Rocquet's analysis. One of the major problems, in particular with DAR's account, lies in the fact that French wh-DOs trigger PPA and that French PPA is associated with interpretational differences at LF. These facts suggest that relaying PPA to a PF condition is inadequate. For both accounts, on a conceptual level, I cannot see any reason why PF should care about overtly realizing agreement between two elements in specifically the same Spell Out domain. In light of these issues, I reconsider the generalizations regarding French and Italian PPA and explore the options available to us which may seek to reduce the differences to a variation in syntactic features.

I assume that the verbal spine consists of at least CP-TP-AspP-vP-VP. I share traditional assumptions about *v* in that it selects the EA from the numeration into Spec vP. If it does, it is a non-defective (strong) phase head. If it does not, it is a defective (weak) phase head. Since *v* typically triggers Agree with an IA, *v* has unvalued and uninterpretable ϕ -features. Since in PPA, it is the past participle that bears morphophonological agreement, I claim that the past participle, which starts out as lexical V, ends up in *v*. This being the case, the auxiliary accompanying the past participle cannot be in *v*, and so I relocate it to Asp(ect)²⁶. As with other verb-raising languages, Asp moves to T. I also take *v* and C to be phase heads. As such, everything that

²⁶ The actual label doesn't matter and in fact, this detail can be abstracted away from. The idea is simply that the auxiliary does not agree with the IA and it does not introduce the EA.

moves past these phase heads (assuming they are not defective, a.k.a. weak) must pass through their specifiers, i.e. Spec vP²⁷ and Spec CP.

We can present the relationship between these basic assumptions (in particular, movement through Spec vP) and the occurrence of PPA in French and Italian in the following table:

(56) **Relationship between Spec vP and PPA**

	Passes through Spec vP?	Triggers PPA?
DO in-situ		
DO-clitic	✓	✓
<i>wh</i> -DO	✓	✓ (French only)
???		✓

Ignoring the last row of (56), it seems that the prerequisite for PPA is passing through Spec vP. In other words, if a language with PPA has an IA passing through Spec vP, then it may trigger PPA. Therefore, with *wh*-DOs, French is a language that opts to trigger PPA, while Italian is a language that opts not to trigger PPA. Such a generalization would be profound, assuming that the last row, i.e. a language that has a DO which triggers PPA but does not go through Spec vP, is unattested²⁸.

²⁷ Empirical evidence for passing through this position may be found in van Urk and Richards (2013). I will note that this in itself is an assumption. It is likely that a language, such as Italian as I discuss later in this section, might provide a different path for an element to vacate the VP, bypassing Spec vP in the process.

²⁸ Unfortunately, the last row is attested. D'Alessandro (2010a) cites the Eastern Abruzzese dialect of Neapolitan Italian as a language where the past participle shows morphophonological agreement with any plural DP (vb-c), even if it is a DO in-situ (vc):

- (v) a. Giuwanne a pittate nu mure
 John has painted a.SG wall.SG
 'John has painted a wall'
- b. **Giuwanne e Mmarije a pittite nu mure**

The occurrence of PPA with DO in-situ and DO-clitics follows from the generalization made above: passing through Spec vP seems to be required for PPA to occur. A DO in-situ presumably does not pass through Spec vP and therefore does not trigger PPA, while a DO-clitic does pass through Spec vP and does trigger PPA. (Italian) *wh*-DOs, however, are not covered by this generalization. This means one or more of the following are likely to be true: Italian *wh*-DOs don't actually pass through Spec vP; something about Italian *wh*-DOs prevents the triggering of PPA; or something about Italian past participles prevents the triggering of PPA with *wh*-DOs specifically. I explore each option in the following subsections (except for the last which is daisy-chained in the conclusion of section 4.2.2 as a natural part of the discussion).

4.2 Teleportation or a detour?

The first option I consider here is the idea that Italian *wh*-DOs do not actually pass through Spec vP. Under normal assumptions, both formulations of the Phase Impenetrability Condition (PIC) (Chomsky, 2000; Chomsky, 2001b) make it impossible for a *wh*-DO to make it to Spec CP without first landing in the edge of vP, namely Spec vP. The PICs are rephrased below for convenience.

(57) a. **PIC1** (Chomsky, 2000)

Given the structure [_{XP} X [_{HP} H YP]], with H as a phase head, the domain of H is not accessible to operations outside of HP; only H and its edge are accessible to such operations.

b. **PIC2** (Chomsky, 2001b)

John and Maria have painted.PL a.SG wall.SG

'John and Maria have painted a wall'

c. Giuwanne a **pittite** **ddu** **mure**

John haves painted.PL two.PL wall.PL

'John has painted two walls'

Due to various constraints, I have no analysis for Eastern Abruzzese and leave it to further research.

Given the structure [_{ZP} Z [_{XP} X [_{HP} H YP]]], with H and Z as phase heads, the domain of H is not accessible to operations starting at Z; only H and its edge are accessible to such operations.

Thus, under PIC1, as soon as the vP phase is complete, a DO that hasn't moved to the edge becomes immediately inaccessible and therefore could not move to Spec CP. Under PIC2, as soon as the matrix C is merged, a DO that hasn't moved to the edge of Spec vP becomes immediately inaccessible as well. Therefore, it is necessary for the DO to move out of the complement of v, presumably to Spec vP.

Before cutting this thread short, let us suppose that a DO could in fact never have landed in Spec vP and yet still be in its correct position above Spec vP, be it Spec TP for derived subjects or Spec CP for A'-reasons (*wh*-questions, topicalization, focus movement, QR, etc.). This leaves us with two options: either the DO is base-generated in the left periphery²⁹ (LP) or the DO skips past Spec vP³⁰. I consider these two in turn.

4.2.1 Teleportation, a.k.a. base-generation

According to Rizzi and Shlonsky (2007), Italian subjects that seem to have moved to the LP are actually base-generated there. The reason for this is due to Rizzi (2004)'s Subject Criterion and Criterial Freezing, both of which are below:

(58) a. **Subject Criterion**

Classical EPP, the requirement that clauses have subjects, can be restated as a criterial requirement, the Subject Criterion, formally akin to the Topic Criterion, the Focus Criterion, the Q or Wh Criterion, etc.

b. **Criterial Freezing**

²⁹ For linguists in the cartography enterprise, I use left periphery (LP) and Spec CP interchangeably. This is obviously a simplification as the fine-grained projections of the LP are not relevant to my discussion.

³⁰ Whether this path is the same one used in passives and unaccusatives, e.g. moving straight up the verbal spine, or a different one involving extraposition to some postverbal position followed by subsequent movement upwards, is not of my concern.

An element moved to a position dedicated to some scope-discourse interpretive property, a criterial position, is frozen in place.

Essentially, once something has reached the Spec TP position (which is the position of the Subject Criterion), it is frozen there. To get around this, relevant Italian elements are base-generated in the LP such that they are never frozen in Spec TP. This idea is supported by topicalization data, specifically clitic left dislocation (CLLD) data in Frascarelli (2002).

Under some analyses, Italian LD is A'-movement. If this is the case, then one would expect CLLD to license parasitic gaps. However, this expectation is not borne out.

- (59) * [Quel libro]_i, I_i' ho cercato [senza trovare e_i]
 that book it have.1.SG looked for without to find PG
 'That book, I looked for without finding'

Additionally, binding properties suggest that the topic does not reconstruct (and therefore does not originate from) downstairs.

- (60) a. Maria_i ha presentato [ad ogni ragazzo]_k [il suo_{i/k} professore]
 Maria has introduced to every boy the her/his teacher
 'Maria_i introduced [her_i/his_k teacher] [to every boy]_k'
 b. Maria_i, [il suo_{i/*k} professore], I' ha presentato [ad ogni ragazzo]_k
 Maria the her/*his teacher him has introduced to every boy
 'Her_i professor, Maria_i introduced [to every boy]_k'

In (60a), the basic order of the ditransitive allows the possessive pronoun on the DO *professore* 'teacher' to be bound by either the IO *ogni ragazzo* 'every boy' or the subject *Maria*. In (60b), which is the CLLD version of (60a), only the subject can be the binder of the possessive pronoun. Assuming that the position of the DO in (60a) is the topmost A-position of the DO, then if the DO moved into the LP, we would expect the DO to be able to reconstruct to that position where it could be bound by the IO. However, this is not the case. This suggests that the DO was base generated in the LP, which would predict that it was never in a position to be bound by the IO downstairs. This is exactly what we see.

Given these facts, it is very likely that what is considered to be A'-movement of Italian DOs could in fact be base-generation of the DO in the LP. If this is the case, then we would not expect PPA with Italian *wh*-DOs. This would be because they are base-generated in the LP and thus never pass through Spec vP to trigger PPA.

Various island tests in French (below) show that French *wh*-DOs (even D-linked ones) cannot escape islands. This is in support of the idea that French *wh*-DOs are not base-generated in the LP (as they are in Italian). Thus, French *wh*-DOs must move in order to reach the LP and by the discussion of the PICs above, French *wh*-DOs must pass through Spec vP and trigger PPA.

- (61) a. * Quelles voitures as-tu fait l' affirmation que Marc a
 which.F.PL cars.F have-you made the claim that Mark has
 repainted(es)?
 repainted(.F.PL)
 'Which cars did you make the claim that Mark repainted?'
- b. * Quelles salles de bains est-ce que tu te demande si Louis
 which.F.PL bathrooms.F C_[+Q] you yourself ask if Louis
 a construit(es)?
 has constructed(.F.PL)
 'Which bathrooms do you wonder whether Louis has constructed?'

Given the above, having Italian *wh*-DOs be base-generated in the LP instead of moving there seems to be a viable option for explaining why Italian *wh*-DOs don't trigger PPA. Of course, we need to see whether or not *wh*-DOs are in fact base-generated in the LP, as the prior discussion was exclusively of CLLD topics.

According to Rizzi (2001), D-linked *wh*-phrases involve a feature [+Topic] and the activation of the Top(ic) position in the LP. This suggests that it is D-linked *wh*-phrases that can be base-generated (and not other non-D-linked *wh*-phrases). This of course leads us to the problem of having to explain why non-D-linked *wh*-phrases don't trigger PPA, since they are not base-generated in the LP.

Another problem is that focus movement (Bianchi, 2013), in contrast to CLLD, is an instance of A'-movement. As such, if it were movement from a low position that is VP-internal to a higher position that is VP- (and vP-) external, then it would arguably have to pass through Spec vP, which would trigger PPA. Unfortunately, no PPA is obtained with focus movement (62a) in contrast to CLLD (62b) which has PPA presumably because of the resumptive clitic.

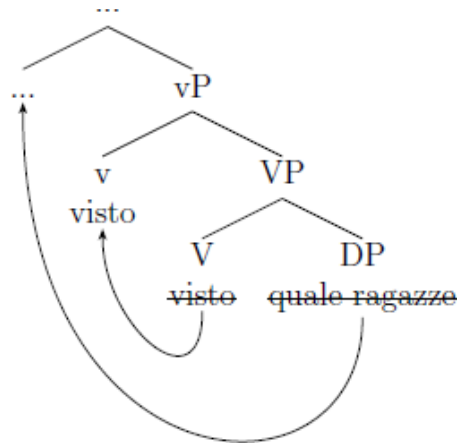
- (62) a. **I** **giornali**, ho **comprato** ieri
 the.M.PL journals.M have.1.SG bought yesterday
 ‘The journals, I bought yesterday’
- b. **I** **giornali**, **li** ho **comprati** ieri
 the.M.PL journals.M them.M.PL have.1.SG bought.M.PL yesterday
 ‘The journals, I bought (them) yesterday’

With these facts in consideration, it seems that base-generation of *all wh*-DOs in the LP is not as viable as it first seemed. Additionally, it is difficult to link the ability of base-generating a syntactic object upstairs (as opposed to moving it) to a morphosyntactic feature, as we would like if narrow syntax is invariable.

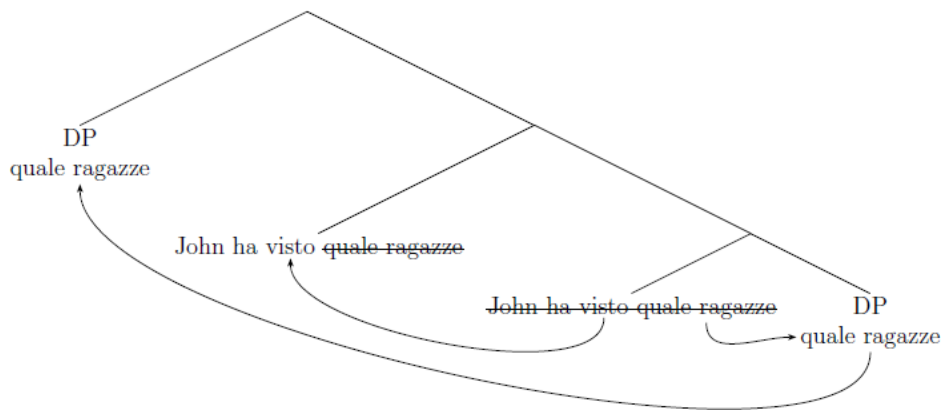
4.2.2 Taking a detour to avoid Spec vP

Another option of avoiding Spec vP is by simply skipping it. As I mention in footnote 31, the question of whether this is simply skipping Spec vP as in (63a) or some sort of detour involving perhaps extraposition and remnant movement as in (63b), is not of my concern here. As such, the exact details of which method of skipping Spec vP, I will leave to future research. My intuitions tell me that it is probably an instance of skipping as opposed to a roundabout detour. This is partly because I don't believe in the fronting of TP-like constituents.

- (63) a. Skipping past Spec vP



b. Remnant movement to avoid Spec vP³¹



To demonstrate the feasibility of avoiding Spec vP of a *wh*-DO's way up to Spec CP, I turn to reconstruction effects with binding. Consider the following:

- (64) a. Maria_i ha presentato al suo_{i/*k} studente [il professore]_k
 Maria has introduced to the her/*his student the teacher
 'Maria_i introduced the teacher to her_i student'
- b. [Quale professore]_k Maria_i ha presentato al suo_{i/*k} studente
 which teacher Maria has introduced to the her/*his student
 'Which teacher did Maria_i introduce to her_i student?'

In (64a), the DO *il professore* 'the teacher' cannot bind the pronoun in the IO (*il*) *suo studente* 'their³² student'. In (64b), the corresponding *wh*-DO also cannot bind the pronoun in the IO. This

³¹ There are many problems with this structure. I make no claims about the idea's validity nor its implementation. This tree is merely for illustrative purposes.

³² I use the 3rd person plural pronoun here as a 3rd person singular pronoun to avoid gender distinctions.

automatically rules out the base-generation option since if the *wh*-DO were base-generated upstairs, then it would be in a c-commanding position to bind the pronoun downstairs. What remains are movement options. Let us now assume that reconstruction effects can be located at the last (= topmost) A-position and any A'-position. Labeling Spec vP as either an A- or an A'-position would predict that a relevant copy of the fronted *wh*-DO could be interpreted at that position for binding theory. As such, in that position (Spec vP), we would expect the *wh*-DO to be in a position in which it could bind the pronoun in the IO downstairs. This is of course impossible.

This pair strongly suggests that while movement does in fact take place, it is an instance of movement that somehow avoids the Spec vP position where PPA would occur. In terms of tying this ability to avoid Spec vP to morphosyntactic features, this is easier to account for than the base-generation option. The little *v* head (perhaps the past participle itself) in Italian could have (feature-based) properties that disallow it from hosting a *wh*-DO as an argument in its specifier (or even hosting it as something passing through for reasons of phase impenetrability). Or perhaps there is another head in the Italian verbal domain with a feature that interferes with the normal path of a *wh*-DO moving up to Spec CP.

Of course, therein lies the issue: what is the exact method by which Italian *wh*-DOs skip Spec vP (but not other DOs) and what causes this to happen? Nothing obvious comes to mind.

4.3 There's something about *wh*-DOs

In this section, I explore the option of assuming that Italian *wh*-DOs differ from French *wh*-DOs. In particular, my discussion here is based on previous work of mine.

4.3.1 Clitics trigger agreement

Returning to the original contrasts in French and Italian, recall that both languages exhibit agreement with DO-clitics³³, as shown in (3-4) repeated as (65-66) below:

³³ The exact mechanism for PPA with DO clitics is beyond the scope of my investigation. I leave this for future research.

Italian: Obligatory PPA with DO-clitic

- (65) a. * **Le** ho **mangiato**
 them.F.PL have.1.SG eaten
 ‘I have eaten them’
- b. **Le** ho **mangiate**
 them.F.PL have.1.SG eaten.F.PL

French: Optional PPA with DO-clitic

- (66) a. **Je les** ai **mangé**
 I them.PL have.1.SG eaten
 ‘I have eaten them’
- b. **Je les** ai **mangées**
 I them.PL have.1.SG eaten.F.PL

As previously mentioned, PPA is obligatory with DO-clitics. In addition to (65-66), consider the following Italian data regarding left-peripheral constructions, above as (62), repeated below as (67). Notably, (67a) is a focus construction and has no clitic, while (67b) is an instance of topicalization, which is accompanied by clitic resumption. The one with the clitic, (67b), is the only one that exhibits PPA.

- (67) a. **I** **giornali,** ho **comprato** ieri
 the.M.PL journals.M have.1.SG bought yesterday
 ‘The journals, I bought yesterday’
- b. **I** **giornali,** **li** ho **comprati** ieri
 the.M.PL journals.M them.M.PL have.1.SG bought.M.PL yesterday
 ‘The journals, I bought (them) yesterday’

Based on the data in (65-67), it seems reasonable to make the generalization that DO-clitics are robust (enough) triggers of PPA. In other words, whenever there is a DO-clitic, we can reasonably expect PPA to occur. Since French *wh*-DOs trigger PPA, and Italian ones do not, a logical move is to hypothesize that French *wh*-DOs perhaps contain a DO-clitic, while Italian *wh*-DOs do not.

In Poletto and Pollock (2004), the *wh*-clitics of North Eastern Italian dialects (NIDs) in *wh*-doubling contexts are claimed to be similar to clitic doubling cases. In particular, they take on a “Big DP” approach (Uriagereka, 1995) to *wh*-clitics, in that the *wh*-clitic and the full (their ‘long’) *wh*-word are merged together, rather than being generated separately.

(68) **The Big DP approach to *wh*-clitics**

Wh-doubling cases are merged initially as a complex entity whose head is the *wh*-clitic while the ‘long’ *wh*-form forms the clitic’s specifier: [_{CIP} WhP *wh*-cl]

This means a *wh*-doubled surface form such as (69a) is derived from a Big DP representation, as in (69b):

- (69) a. **Ndo** e-lo ndat **endoe**?
 where is-he gone where
 ‘Where has he gone?’
- b. Lo e ndat [_{CIP} [_{XP} **endoe**] **ndo**]
 he is gone where where

Poletto and Pollock claim that French *wh*-questions fall under (55) as well based on the fact that French *que* ‘what’ displays characteristics of clitics³⁴, whereas there also exists a counterpart *quoi* which does not display these characteristics. Under this view, French happens to only spell out one of the two inside CIP, either the *wh*-clitic *que* (or *qu’*) or the full *wh*-word *quoi*, as shown in (70b-c), but not both (70a):

- (70) a. * **Qu’** as-tu vu **quoi**?
 what have-you.SG seen what
 ‘What have you seen?’
- b. **Qu’** as-tu vu?
 what have-you.SG seen

³⁴ The properties of clitics that Poletto and Pollock cite follow directly from pronominal clitics: “they both cannot be separated from the verb ‘host’, used in isolation, be the object of a preposition, be co-ordinated or modified” (Poletto & Pollock, 2004, p. 138).

- c. Tu as vu quoi?
 you.SG have seen what

Poletto and Pollock’s analysis of French *wh*-words accompanied by a *wh*-clitic supports the hypothesis I presented above: all French *wh*-DOs are CIPs with a *wh*-clitic (usually phonologically null). Like other DO-clitics, it is the DO *wh*-clitic that triggers PPA in French³⁵. Following this, we can also propose the following: (Standard) Italian *wh*-DOs do not trigger PPA because they lack a *wh*-clitic which is the trigger for PPA. In other words, Italian *wh*-DOs are DPs, not CIPs³⁶.

The question now becomes what accounts for the CIPs in French and the NIDs, but not for Standard Italian³⁷. I answer this question in chapter 5, continuing along the research program of deriving syntactic variation from syntactic feature specifications.

4.3.2 Unifying both types of Merge

My answer to the question of why (Standard) Italian has *wh*-DPs and French and the NIDs have *wh*-CIPs requires a formalism proposed by Müller (2010), namely subcategorization features. I build up to the introduction of this by presenting a line of logic that modifies traditional views regarding Merge. Müller’s formalism naturally follows from this discussion.

Merge is standardly assumed to come in two “flavors”³⁸: (external) Merge and internal Merge (a.k.a. Move). “Flavors” and the labels “external” and “internal” are rather misleading as both

³⁵ As pointed out correctly by Norbert Corver, if all *wh*-DOs in French have a *wh*-clitic, then the question becomes why *wh*-DOs in situ do not trigger PPA. Additionally, in Poletto and Pollock, the *wh*-in-situ *Tu as vu quoi?* ‘What did you see?’ does not feature auxiliary inversion as they claim it should, i.e. **As-tu vu quoi?* They do not provide a reason for this. As such, I acknowledge that and Norbert Corver’s observation as a major problem with both analyses. I touch upon this briefly in section 4.3.

³⁶ It is more likely that all *wh*-words, regardless of case or theta role, are CIPs in French and DPs in (Standard) Italian.

³⁷ This difference implies that Italian *wh*-DOs should not display characteristics of clitics, while French ones should. due to time constraints, I was unable to check for this. I leave this for future research.

³⁸ Though, see Georgi (2013) for a proposal that Merge comes in two actual flavors: one that precedes Agree and one that follows Agree.

are the same operation: Merge(α , β) results in the set $\{\alpha, \beta\}$, with one of the two acting as the head (i.e. projecting). The only difference between external Merge and internal Merge are the elements it is applied to. With external Merge, α and β are both items in the numeration or workspace. With internal Merge, α and β are both items within a given syntactic object.

Internal Merge is taken to be triggered by EPP properties on probing features on a head. This forms the basic claim that movement follows Agree since EPP properties on probing features can be satisfied if the features trigger Agree³⁹. In other words, Agree, or rather, features always drive internal Merge. However, if internal Merge is just (general) Merge applied to internal items, then it is not implausible to extend the prerequisite of Agree and, in particular, features to external Merge.

It is standardly assumed that external Merge applied to arguments is simply driven by subcategorization requirements on a head. One possibility, then, is to reformulate subcategorization requirements as subcategorization features. In this way, both “types” of Merge, both external and internal, are driven by features (and presumably Agree).

4.3.3 Using subcategorization features

Müller (2010) instantiates a version of this logic, stating that there are probe features, those that trigger what is standardly taken to be Agree followed optionally by internal Merge, and structure-building features, which include both edge features and subcategorization features (Svenonius, 1994; Kobele, 2006; Pesetsky & Torrego, 2006).

D’Alessandro (2010b) provides an example of how Müller’s system works with a transitive *v* head. According to them, transitive *v* has two subcategorization features: [$\bullet V \bullet$] and [$\bullet D \bullet$]. [$\bullet V \bullet$] can only be “discharged” if *v* merges with a V(P), and [$\bullet D \bullet$] can only be “discharged” if *v* merges with a D(P). This is the way subcategorization requirements are represented and satisfied in Müller’s system. These features, however, are not discharged at random; they are hierarchically organized: [$\bullet V \bullet$] > [$\bullet D \bullet$]. This means that the subcategorization feature [$\bullet D \bullet$] is only accessible after [$\bullet V \bullet$] has been discharged. In fact, this ordering is one of the things that prevents a *v* in English from taking a DP agent as its complement and a VP as its specifier, e.g.

³⁹ The other option is having something merged directly to the probing head (in a specifier).

* $[_{VP} [_{VP} \text{ loves Mary}] [_{v'} \emptyset [_{DP} \text{ John}]]]$. Continuing on with the derivation, v discharges $[\bullet V \bullet]$ by Merge(v , VP), i.e. merging with a V(P). After that, v discharges $[\bullet D \bullet]$ by Merge(v , DP), i.e. merging with a D(P), resulting in the structure: $[_{VP} [_{DP} \dots] [_{v'} [_{v} \dots] [_{VP} \dots]]]$.

Given this system and the fact that Standard Italian *wh*-DOs are DPs and French/NID *wh*-DOs are CIPs, we can make the following proposal: some X head, possibly and probably related to *wh*-words (and maybe *wh*-phrases), has a $[\bullet Cl \bullet]$ feature in French and the NIDs, but a $[\bullet D \bullet]$ feature in Standard Italian. This proposal is desired since it reduces the syntactic variation with regards to *wh*-DOs and PPA to a (subcategorization) feature.

4.3.4 X is a Q-particle

I suggest that the head that determines the presence of either a DP or a CIP in Italian and French, respectively, is a Q-particle (Cable, 2007; Cable, 2010; Hagstrom, 1998; Kishimoto, 2005). I briefly describe what a Q-particle is and present some of the empirical evidence for its existence below, before returning to French and Italian.

A Q-particle, following mainly Cable (2007; 2010), is a functional head that (normally) selects a *wh*-phrase (which includes *wh*-words). Instead of the *wh*-word undergoing agreement with interrogative C, it is the Q-particle which undergoes agreement. As such, when the Q-particle undergoes movement to Spec CP, the fact that its complement is a *wh*-phrase entails that the *wh*-phrase ends up in Spec CP as well. Thus, *wh*-movement to Spec CP is technically the Q-particle pied-piping its *wh*-phrase complement. What is considered to be the regular pied-piping of a *wh*-phrase (e.g. the movement of a PP containing a *wh*-word) is just a subcase of Q-particle movement to Spec CP, where the Q-particle's complement happens to be an XP bigger than the *wh*-word itself. Cable's main proposal is that all languages have Q-particles. In some languages, such as Edo (Baker, 1999), Sinhala (Kishimoto, 2005), Japanese (Yatsushiro, 2001), and Tlingit (Cable, 2007; Cable, 2010), the Q-particle is phonologically overt. In many other languages, e.g. English, French, and Italian, the Q-particle is phonologically null.

The evidence for Q-particles comes from Tlingit, a Na-Dené language with *wh*-fronting, spoken by indigenous peoples of the Pacific Northwest Coast of North America. In Tlingit, *wh*-words

and *wh*-phrases are always accompanied by a particle, *sá*. The absence of *sá* makes the *wh*-question ungrammatical⁴⁰.

- (71) **Daa** *(**sá**) aawaxáa i éesh?
 what Q he.ate.it your father
 ‘What did your father eat?’

With *wh*-phrases, *sá* must c-command the *wh*-word. In (72a-b), *sá* must occur immediately to the right of (the phrase containing) the *wh*-word. In (72c-d), *sá* is shown to not do so and the result is ungrammatical⁴¹. The structure of (72a) is shown in (73).

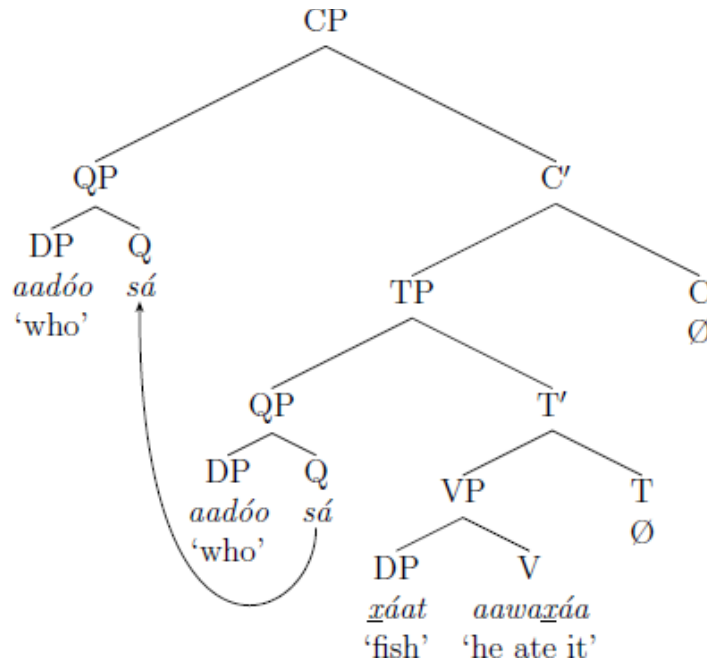
- (72) a. **Aadóo sá** xáat aawaxáa?
 who Q fish he.ate.it
 ‘Who ate the fish?’
 b. [**Aadóo** jeet] **sá** wé sakwnéin aawatee?
 who hand.to Q that bread he.brought.it
 ‘Who did he give the bread to?’
 c. * **Aadóo** xáat aawaxáa **sá**?
 who fish he.ate.it Q
 d. * [**Aadóo** jeet] wé sakwnéin **sá** aawatee?
 who hand.to that bread Q he.brought.it

- (73) ‘Who ate the fish?’

⁴⁰ Technically, *sá* occurs even with *wh*-words used as indefinite pronouns, i.e. outside of *wh*-question contexts.

⁴¹ Those questioning the constituency of *aadóo jeet* ‘(to) whom’ in (59b) and (59d) should note the more relevant example in which *sá* is not allowed to intervene. The meaning also matches the constituency if the *wh*-word *aadóo* is taken to be the DP-internal possessor of the (seemingly dative) noun *jeet* ‘hand’.

- (vi) a. [**Aadóo** jeet] **sá** iyatee?
 who hand.to Q you.brought.it
 ‘Who did you give it to?’ (= ‘Whose hand did you bring it to?’)
 b. * [**Aadóo sá** jeet] iyatee?
 who Q hand.to you.brought.it



Sá, but not the *wh*-word, is subject to islands as demonstrated by the RC island below in (74). In (74a), *sá* is outside the RC, which is grammatical. As soon as *sá* is placed inside the NP/DP, it is ungrammatical, even if it is adjacent to the *wh*-word as in (74b).

- (74) a. [NP [CP **Wáa** kwligeyi] xáat] **sá** i tuwáa sigóo?
 how it.is.big.REL fish Q your spirit it.is.happy
 ‘How big a fish do you want’ (= ‘A fish that is how big do you want?’)
- b. * [NP [CP **Wáa** **sá** kwligeyi] xáat] i tuwáa sigóo?
 how Q it.is.big.REL fish your spirit it.is.happy
- c. * [NP [CP **Wáa** kwligeyi] **sá** xáat] i tuwáa sigóo?
 how it.is.big.REL Q fish your spirit it.is.happy

A possible explanation is that *sá* is (interrogative) C. This is untenable considering that, in multiple *wh*-questions, *sá* appears for each fronted *wh*-constituent (75a) and it must appear with *wh*-indefinites as in (75b).

- (75) a. **Aa** **sá** **daa** **sá** aawaxáa?
 who Q what Q they.ate.it
 ‘Who ate what?’
- b. Tlél **goodéi** *(**sá**) xwagoot

- b. * [VP ... [PP ... [QP ... [DP ...]]]]

Another objection, relating to Müller's system is the problem of V selecting a DP or a CIP obscured by an intervening functional projection like QP. If Müller's system encodes V with [**•D•**], then we would not expect V to end up merging with a QP to discharge the [**•D•**] subcategorization feature. This issue is even more problematic given the fact that one cannot predict that a given QP is related to [+N] categories like DP and CIP since the Q-particle may select DPs, PPs (for traditional preposition pied-piping cases), and perhaps other categories.

Under some hypotheses, especially Cinque and Rizzi (2010), every syntactic feature is its own head. Let us assume that the ϕ -features: person, number, and gender, are specified in the domain of N. This is under the observation that a bare noun can encode all of these features, e.g. French *fille* 'girl' with [3-Pers; Sg-Num; F-Gen] or Italian *cavalli* 'horse' with [3-Pers; Pl-Num; M-Gen]. It follows that a DP contains at least the following projections, where PersonP, NumberP, and GenderP⁴³ correspond roughly to the traditional NP: [DP ... [PersonP ... [NumberP ... [GenderP ...]]].

If features with EPP properties on T or v probe into a DP as specified above, and if there is an overt D, we might incorrectly expect only the maximal projection containing those agreeing features to end up in Spec TP or Spec vP as in (79a) instead of correctly pied-piping all of the other functional layers (up to the DP) as in (79b)⁴⁴:

⁴³ I make no claims about the relative orders of PersonP, GenderP, and NumberP.

⁴⁴ Craig Thiersch brought up the fact that such movements are acceptable in many languages, e.g. Warlpiri (viiiia) and German (viib):

- (vii) a. Wawiri ka ngarkangu [e_i malinki] nyanyi
 kangaroo AUX man e small speared
 'The man speared the kangaroo'
- b. Auto_i hat er [keins e_i] gekauft
 car has he small e bought
 'He hasn't bought a small car'

- (79) a. * [TP [PersonP=NP ...dog...]_i [T' Ø [VP [DP the *t_i*] ran]]]
 b. [TP [DP the [PersonP=NP ...dog...]] [T' Ø [VP *t_i* ran]]]

To prevent cases like (79a), arguments can be made to make it such that the probes on T (or more generally, T, v, and other probing heads) agree with D, which happens to have the relevant features from downstairs in the NP-layer through mechanisms such as feature percolation or feature sharing. However, those exact arguments could also be made for Q-particles with subcategorization features.

Essentially, some mechanism or stipulation needs to be made to allow pied-piping of the functional layers on top of a lexical domain. Whatever this is, it would allow a V with a [**•Cl•**] or [**•D•**] feature to probe downwards, past the Q-particle layer, to find the D or Cl layer, which it actually subcategorizes. Q is simply “pied-piped” in the merge process as part of the functional layer of the D or Cl, as D would be as in (79b).

4.3.5 Withstanding issues

My suggested analysis is not without holes. As I mentioned in footnote 36, Poletto and Pollock’s analysis has one relevant flaw: there is no subject-auxiliary inversion with *wh*-in-situ in French. This is related to another flaw in my analysis which is that if *wh*-DOs in French are doubled by (covert) *wh*-clitics, then *wh*-DOs in-situ should trigger PPA, which is not the case. I demonstrate both of these in turn.

Below is (70c) repeated as (80a) with a (b) example added to complete the paradigm.

- (80) a. Tu as vu **quoi?**
 you.SG have seen what
 b. * As-tu vu **quoi?**
 have-you seen what

I admit that I have no good story for this. I will, however, note that German (and it seems that Warlpiri might be the same) is V2 and the Spec CP position does not seem to be targeting ϕ -features as constituents of many types are able to occupy that position. The Spec CP position seems to be related to discourse/IS.

According to Poletto and Pollock, *wh*-doubled constructions and *wh*-in-situ constructions (in addition to *wh*-clitic constructions) are always accompanied with subject-auxiliary inversion, as demonstrated by the NID data below.

(81) *Monno (Brescia)*

- a. **Ch'** et fat **què?**
 what have-you done what
 'What have you done?'
- b. **Ch'** et fat?
 what have-you done
- c. Fet fà **què?**
 do-you do what
 'What are you doing?'

Illasi

- d. * **Sa** l' a fato?
 what he has done
 'What has he done?'
- e. **S'** a-lo fato **che?**
 what has-he done what

Monno

- f. * **Ngo** tu andà?
 where you go
 'Where are you going?'

If French *quoi* 'what' is to be analyzed as the NIDs in (81), then we would expect (80b) to be grammatical. This is, however, not the case. Poletto and Pollock do not mention this gap in their analysis. I will note that French *wh*-questions with only one *wh*-phrase, which happens to be *in situ*, are accompanied by rising intonation. Under one view, the rising intonation could derive from a syntactic property or feature (perhaps it is even discourse related) that allows the *wh*-phrase to stay *in situ*. The same source of this rising intonation could also keep the *wh*-clitic downstairs. This must be an exceptional mechanism since clitics are generally required to find a verbal host. In this way, this is also my answer to why *wh*-DOs in-situ do not trigger PPA. The

wh-clitic correlate stays *in situ* for the same reason that the full *wh*-phrase stays *in situ*. As such, the clitic does not trigger PPA, whatever mechanism this may be. Of course, this doesn't solve much since: it is stipulative and it clearly does not carry back over to the NIDs. One piece of evidence that would be useful regarding the NIDs is if the full *wh*-in-situ were not accompanied by any change in intonation. In other words, if there were no change in intonation that could license the *wh*-in-situ, then one would expect at least the (covert) *wh*-clitic to raise, triggering subject-auxiliary inversion. Then, the *wh*-in-situ could stay *in situ* for the same reason it cannot raise when there is an overt *wh*-clitic, yet still trigger subject-auxiliary inversion.

Lastly, regarding Müller's system of subcategorization features, one thing to note is that any lexical head that subcategorizes for something and has ϕ -features will have two stacks of features: one structure-building feature stack (subcategorization features and edge features), and one probe feature stack (ϕ -features). Supposing a big DP from which either the full DP or the clitic must be extracted (perhaps even both). It is not clear how the relevant features on the to-be-extracted element would percolate and be recognized by the probing feature.

This is especially so if we adhere closely to Uriagereka (1995)'s suggestion that clitics are determiners, based on the morphological similarity between Western Romance clitics and Western Romance definite determiners, both of which derive from the same diachronic source (the Latin distal demonstratives). For example, given a big DP headed by a clitic D (as opposed to Cl, which is just merely a label anyway), the structure [_{DP1} [_{DP2} une fille] [_{D'} [_D la] [_{NP} *pro*]]] contains two relevant DPs. The first is the entire big DP₁ and the second is the DP₂ correlate in Spec DP₁. Since it is assumed feature matching takes place between the clitic and its full DP correlate⁴⁵, the two are very alike (or exactly the same) in terms of features. How any probe feature picks out DP₂ (the full DP correlate) as opposed to DP₁ (the big DP headed by the clitic/determiner) is left unknown.

⁴⁵ Perhaps this is from an Agree operation that takes place after merging the full DP₁ in Spec DP₂

5 Future research and conclusion

In this final chapter, I touch upon the last bit of data in chapter 2 regarding the properties of the DO-clitics and partitive clitics. In doing so, I show that their behavior regarding PPA does not follow readily from their properties. Finally, I summarize the chapters above.

5.1 Partitive clitics in the mirror

In this section, I discuss the clitic data in chapter 2. The following discussion is based on Déchaine and Wiltschko (2002)'s (henceforth DW) pronominal typology. In short, pronouns fall into the following three categories: pro-DP, pro- φ P, and pro-NP. The categories are in a hierarchy relation (as shown in (82)). Each category exhibits certain morphosyntactic and semantic properties and these properties can be used to categorize pronouns found in languages or to predict properties of these pronouns. Pro-DPs behave like DPs, pro- φ Ps behave like a bundle of φ -features, and pro-NPs behave like bare lexical nouns.

(82) Pro-DP

a. [DP ... [φ P ... [NP ...]]]

Pro- φ P

b. [φ P ... [NP ...]]

Pro-NP

c. [NP ...]

In addition to DW's typology, this discussion caters to the idea that the PPA-triggering ability of the clitics is tied to their categorical status under DW. Specifically, I hypothesized that pro-DP and pro- φ P clitics could trigger PPA since they contain a φ P layer, where φ -features are hosted. Pro-NPs, on the other hand, lacking a φ P layer (and therefore, lacking φ -features), would not trigger PPA.

Since DO-clitics uniformly trigger PPA in Italian, French, and Catalan, those will serve as my starting point. Recall the summarized table (31) in chapter 2, repeated below as (83) with lettering of the rows.

(83) *Properties of DO-clitics*

	Italian	French	Catalan
a. Local coreference	*	*	*
b. Non-local coreference	OK	OK	OK
c. Bound variable (sloppy)	*	OK	OK
d. Quantifier-bound variable	OK	OK	OK
e. Argument position (status)	OK	OK	OK
f. Predicate position (status)	OK	OK	OK
g. Hosting of nominal mods	*	*	*

Each of the properties on the left is related to a property of φ Ps in DW's typology. In DW, φ Ps are variables with respect to their semantics, meaning that they are subject to Condition B (83a-b), can support coreference (83b) and can be bound as variables (83c). With regards to their syntax, they can be arguments (83e) or predicates (83f). Lastly, because they are neither DPs nor NPs, they do not show DP or NP syntax. The test DW use is to show that φ Ps cannot host nominal modifiers like adjectives or prepositions (83g).

With the exception of the (83c) where Italian cannot support the sloppy bound variable reading, the DO-clitics in these languages fit very nicely into DW's definition of φ Ps⁴⁶. As such we expect that they have φ -features and thus are likely to engage in an agreement relation with a past participle and trigger PPA. This is borne out⁴⁷.

⁴⁶ In fact, DW analyze French DO-clitics as being pro- φ Ps.

⁴⁷ One confounding issue is that Spanish and Portuguese clitics may share these features, yet as noted in chapter 2, they do not have PPA with DO clitics. This may suggest, as I suggest later in this chapter, that the properties of the clitics might not actually be directly responsible for the manifestation of PPA cross-linguistically.

Next, I move onto the partitive clitic data. Recall the properties of these partitive clitics in (84) repeated from (35) with lettering.

(84) *Properties of partitive clitics*

	Italian	French	Catalan
a. Local coreference	*	*	*
b. Non-local coreference	*	?	OK
c. Bound variable (sloppy)	*	OK	OK
d. Quantifier-bound variable	*	*	*
e. Hosting of nominal mods	OK	OK	OK

Recalling the generalizations regarding PPA in chapter 2, French partitive clitics do not trigger PPA while Italian and Catalan partitive clitics do optionally trigger PPA. Specifically for Italian, I observed that the presence of PPA gave the partitive clitic a true partitive (i.e. specific) reading whereas the absence of PPA gave the partitive clitic a numerically modified/(weakly) quantified reading, i.e. it was roughly indefinite. This is crucially very similar to the situation with regular French PPA with *wh*-DOs. It seems that (the presence of) PPA is tied to specificity⁴⁸.

In a related vein, I did investigate Serbo-Croatian DO-clitics, which despite being able to be preverbal, do not trigger PPA. Unlike the Western Romance clitics, DO-clitics in Serbo-Croatian cannot stand for predicates. Aside from this difference, these clitics behave very similarly, yet no PPA is obtained.

⁴⁸ For reasons of time, I was not able to fully explore this option, but the matter is very peculiar and I will briefly address it here. PPA and specificity fall into the following pattern in both Italian (for partitive clitics) and French (for *wh*-DOs).

(viii) *PPA and specificity in Italian and French*

	PPA	No PPA

Turning to the properties of the partitive clitics, I first take a look at French. In DW, they actually do analyze French partitive *en* as a pro-NP. By virtue of being a pro-NP, it lacks a ϕ P layer and thus lacks ϕ -features. Given this, I predict that it should not trigger PPA. This prediction is true.

However, DW analyze the French partitive as pro-NP based on roughly two properties: its lack of ability to support coreference and bound variable readings, and its ability to host nominal modifiers. I note that DW's French examples with the partitive do not contain partitive contexts (i.e. the partitive clitic is accompanied by a weak quantifier or a numeral), which means the partitive clitic is doomed from the beginning since there is no partitive reading to be assigned to it, as seen in (85a-b) (their (56a) and (57b)).

- (85) a. * *Chacun_i pense que Jean en_i a vu*
 each one thinks that Jean of them has seen
 '[Each one]_i thinks that Jean has seen them_i'
- b. * *[Des étudiants]_i pensent que Jean en_i a vu*
 some students think that Jean of them has seen
 '[Some students]_i think that Jean has seen them_i'

As shown above in chapter 2, once a weak quantifier or a numeral is added to the partitive clitic, coreference (86a) and bound variable readings (86b) reappear.

- (86) a. ? *[Dix étudiants]_i en_i détesteront trois*
 ten students of them will hate three

Specific reading (= D-linked?)	OK	OK
Non-specific reading	*	OK

When there is PPA, the relevant syntactic object (the partitive or the *wh*-DO) must receive a specific reading, it cannot be non-specific. When there is no PPA, the syntactic object can either be specific or non-specific. It is unclear to me at the moment whether it is a specific element that triggers PPA or agreement with the past participle (which in turn triggers morphophonological PPA) that endows that element with a specific interpretation. I suspect that it is the latter, and that somehow, elements that do not trigger PPA receive a specific interpretation by some other means, perhaps through discourse.

‘[Ten students]_i will hate three of themselves_i’

- b. [Dix étudiants]_i pensent que Mary en_i détestera trois
 ten students think that Mary of them will hate three
 ‘[Ten students]_i think that Mary will hate three of them_i’

Given the table in (84), the French partitive does display characteristics that are expected of φ Ps, namely coreference and bound variable readings. Note, however, that the partitive clitic cannot be variable bound by quantifiers as the regular DO-clitic can. My tentative conclusion is that the French partitive clitic is ambiguous between pro- φ P and pro-NP. I am, however, obligated to mention that in DW’s typology, pro-NP may have inherent semantic properties that dictate its semantic behavior. In this way, perhaps the partitivity that is inherent to the partitive clitic has some tie to being able to be bound by variables and to support coreference. In other words, by denoting a part of something, it entails the existence of a *something* to which it may corefer. If this is the case, then it could be that French partitive *en* is a pro-NP with inherent semantic properties that allow it to have pro- φ P-like behavior.

Moving onto Catalan, the Catalan partitive is essentially like the French partitive, yet the Catalan partitive supports (optional) PPA while the French one does not support PPA at all. From this contrast alone, it seems that the pro- φ P/pro-NP distinction is not enough to predict a clitic’s PPA-triggering ability. In other words, either the distinction needs to be more fine-grained or it is not actually the clitic’s properties that are closely responsible for PPA.

This is especially clear with the Italian partitive *ne*, which supports fewer pro- φ P properties, but like Catalan’s partitive clitic, does support (optional) PPA. The Italian partitive clitic is the most pro-NP like of the three partitive clitics, which implies that it lacks a φ P layer. This further implies that it lacks φ -features⁴⁹, but yet it still is able to trigger PPA.

⁴⁹ Recall (23) where the adnominal clitic *ne* (homophonous to or perhaps even the same as the partitive clitic *ne*) in Italian triggers PPA. I noted that the agreement manifested is that of the selecting NP, not of the NP represented by the clitic. This could suggest that the partitive clitic is lacking in φ -features and thus picks them up from the selecting NP.

In summary, the situation regarding partitive clitics is very unclear. And as I noted briefly, specificity plays a role with the partitive clitics as they do with *wh*-DOs. These are research areas that I leave for the future.

5.2 Concluding remarks

In this thesis, I systematically explored various options to answer the question of why PPA differs cross-linguistically. Specifically, I focused on the lack of PPA in Italian with *wh*-DOs, contrasting French *wh*-DOs which do trigger PPA.

In chapter 2, I provided a cross-linguistic comparison of PPA data from the major members of Western Romance. It turned out that only the eastern-most members had robust PPA with DO-clitics, namely Italian, French, and Catalan. These three varied with respect to whether PPA was optional, obligatory, or impossible. One important generalization was that French *wh*-DOs could trigger PPA while Italian and Catalan ones could not. The other generalization was that French partitive clitics could not trigger PPA, but Italian and Catalan ones could. One minor generalization to note was the difference in the PPA of 1st and 2nd person DO-clitics versus those of 3rd person DO-clitics in Italian and Catalan. Lastly, in this chapter, I presented a thorough investigation of the syntactic and semantic properties of the DO-clitics and the partitive clitics.

In chapter 3, I presented, as background, two similar approaches to PPA, D'Alessandro and Roberts (2008) (DAR) and (Rocquet, 2010). I provided an overview of their analyses and demonstrated them with various examples. After doing so, I noted a couple of empirical problems as well as conceptual issues with their analyses, in particular, the lack of attention paid to fronted *wh*-DOs in Italian, how well their systems transfer to each other's languages, and empirical and conceptual issues with using PF conditions to mediate PPA.

In chapter 4, I refocused on the basic generalizations regarding PPA. This allowed me to map out the available options regarding the situation in Italian: the Italian *wh*-DO does not pass through Spec vP because it is base-generated in the LP or because it simply skips or takes a detour around Spec vP; or Italian *wh*-DOs or past participles have properties that make them differ from those in French. I addressed these options in turn, with a specific focus on base-generation and skipping Spec vP and one analysis of mine on Italian *wh*-DOs. Regarding base-generation and

skipping Spec vP, I reasoned that Italian *wh*-DOs could be base-generated as base-generation of certain Italian LP elements have been proposed and shown in the literature. However, when compared with focus movement, the base-generation idea showed little power in solving anything. For that reason, I turned to the idea of skipping Spec vP, which is more tenable since it has firm empirical backing. Additionally, the properties of the verbal domain that allow the *wh*-DO to skip Spec vP could very well be related to the other option of investigating the properties of Italian past participles.

In the other half of chapter 4, I presented a previous analysis of mine of Italian *wh*-DOs by looking towards *wh*-clitic and *wh*-doubling data presented in Poletto and Pollock (2004). From their analysis of the North Eastern Italian dialects (NIDs), I took their extension of the Big DP analysis to French *wh*-questions and used it to make the generalization that DO-clitics are robust triggers of PPA. Having done this, I proposed that Italian *wh*-DOs do not contain DO-clitics. I sought to further the proposal by reducing it to a difference in subcategorization features (Müller, 2010) on the Q-particle (Cable, 2007; Cable, 2010), present in both languages. I concluded with the idea that *wh*-DOs are selected by a Q-particle in both French and Italian. The Q-particle in French has a [**Cl**] feature while the one in Italian has a [**D**] feature. This, coupled with some conclusions made in previous sections, made the correct predictions regarding *wh*-DOs and PPA in these two languages. In spite of all this, there were several issues. First, Poletto and Pollock's analysis failed to account for *wh*-in-situ in French and similarly, my analysis failed to account for *wh*-in-situ as well. Lastly, the system of Müller's subcategorization features is unclear when it comes to big DPs, especially under close adherence to the big DP hypothesis where the clitic is itself a determiner, resulting in a DP within a DP. How any probe manages to select the full DP correlate instead of the entire big DP is left to question.

Naturally, as with any research, there are various questions that have yet to be answered. The first of which is the exact mechanism behind PPA in general, since it seems to involve a Spec-Head relation which no longer exists in Minimalist theories (though a good number of syntacticians still believe in it). While my analysis relies on the generalization that DO-clitics trigger PPA, that specific mechanism has yet to be fleshed out as well. In particular, a suitable answer to that would involve an explanation of why DO-clitics trigger PPA but not full DP DOs. And then there is the question of Eastern Abruzzese (mentioned in a footnote) which seems to

have PPA even with a DO in-situ. In chapter 5 specifically, I briefly discussed the situation of partitive clitics and how specificity, seen in French PPA with *wh*-DOs, also plays a role. Aside from specificity, the partitive clitics themselves do not lend themselves very nicely to categorization under Déchaine and Wiltschko (2002)'s pronominal typology. My hope in having written this thesis is that I have provided a deeper look at the properties of Western Romance PPA and the elements that (may) trigger it. In doing so, I defined various options, some promising, some not, to explaining why PPA differs from language to language.

6 References

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