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Unagreement is an Illusion

Apparent person mismatches and nominal structure

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Any comments are highly welcome!

Abstract This paper proposes an analysis of unagreement, a phenomenon involving an apparent mismatch between a definite third person plural subject and first or second person plural subject agreement observed in various null subject languages (e.g. Spanish, Modern Greek and Bulgarian), but notoriously absent in others (e.g. Italian, European Portuguese). A cross-linguistic correlation between unagreement and the structure of adnominal pronoun constructions suggests that the availability of unagreement depends on the independent syntactic representation of person and definiteness found in Greek-type languages, but not in Italian-type languages, which have pronominal determiners. Null spell-out of the head hosting person features high in the extended nominal projection of the subject leads to unagreement. The lack of unagreement in languages with pronominal determiners results from the interaction of their syntactic structure with the properties of the vocabulary items realising the head encoding both person and definiteness. The analysis provides a principled explanation for the cross-linguistic distribution of unagreement and suggests a unified framework for deriving unagreement, adnominal pronoun constructions, personal pronouns and *pro*.

Keywords unagreement · subset control · pronominal determiners · adnominal pronouns · person mismatch · nominal structure · Distributed Morphology · Modern Greek

1 Introduction

The term agreement implies some form of harmony, or match between the properties of the elements that partake in the agreement relation. A prominent example of the application of the notion of agreement in linguistic theory is subject-verb

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agreement. In languages that morphologically mark it, the φ-features (person, number, gender) expressed on the verb need to be compatible with those of the subject of the clause. This means that while not necessarily all of the properties person, number and gender are expressed on both the subject and the verb, the relevant markings may not be contradictory. Interestingly, languages occasionally seem to violate this requirement (cf. Corbett 2006, ch. 5).

One such apparent agreement mismatch has been described prominently for Spanish under the labels *unagreement*, *subset control*, *anti-agreement* and *disagreement* (Bosque and Moreno 1984; Hurtado 1985; Taraldsen 1995; Torrego 1996; Ordóñez and Treviño 1999; Ordoñez 2000; Saab 2007; Rivero 2008; Rodrigues 2008; Villa-García 2010; Ackema and Neeleman 2013). Descriptively, unagreement configurations in Spanish involve first or second person plural agreement on the verb, while the apparent subject is a definite plural noun phrase. Since full DPs typically control third person agreement and have the interpretation that no participant of the conversation is partaking in the described event, a common assumption is that *las mujeres* in (1) is actually third person.

(1) Las mujeres denunciamos las injusticias.
DET.PL women denounced.1PL the injustices
'We women denounced the injustices.' (after Hurtado 1985, 187, (1))[1]

This poses a problem for the common view that φ-features on the verb, represented by agreement morphology, are uninterpretable reflexes of the interpretable φ-features on the subject noun phrase. If *las mujeres* in the Spanish example is actually a third person plural subject, the origin of the first person plural agreement on the verb remains mysterious.

While most theoretical treatments of unagreement have focused on Spanish, it seems to be anything but an exceptional, language-specific quirk, as a small survey of languages that show unagreement(-like) configurations will show. The main goal of this paper is to propose an analysis of unagreement that can also account for at least part of its cross-linguistic distribution. The empirical focus will be on Modern Greek, and I will point out some differences between the range of unagreement structures in Greek and Spanish.

The basic hypothesis to be defended is that unagreement does not result from a special form or the lack of agreement between subject and verb. Instead, unagreement is the surface effect of zero spell-out of a functional head in the extended nominal projection (xnP) that hosts person features. I argue that its cross-linguistic distribution, at least for languages with overt articles, results from the interaction between variation in the structure of the xnP and conditions on the null realisation of D. If person features are hosted on the same head that also encodes definiteness, unagreement cannot arise. On the other hand, unagreement is possible if person is encoded on a separate head.

In this paper I will not be concerned with the gender-mismatch phenomena often observed for Slavic languages. I also distinguish unagreement from Collins and Postal's (2012) *imposters*. Imposters involve subjects that behave like third person DPs for agreement and lack any overt first or second person marking, but their denotation—somewhat exceptionally—involves the author or addressee of the utterance. Collins and Postal (2012) characterise this as a mismatch between

[1] Glossing added and translation adapted.

"notional" and "grammatical" person of a DP. Unagreeing subjects, on the other hand, while also lacking overt first or second person marking, behave as expected by their denotation, i.e. they trigger first or second person agreement. To adapt the above terminology there is then no mismatch between "notional" and "grammatical" person of the unagreeing DP, but between those two and its "morphological" person.

Similarly, I am going to leave aside Lichtenberk's (2000) Inclusory Pronominals. These seem to involve constructions with a non-singular pronoun and a singular nominal expression whose referent is included in the reference of the pronominal. Unagreement, to the extent that it is comparable, works the other way around, i.e. the plural nominal expression forming the subject is interpreted as including the speech act participant indicated by the verbal inflection. So while a comparison of these phenomena might be a fruitful area for future research, for the purpose of this paper I will focus on unagreement alone.

The article is structured as follows. I am going to present an overview of the cross-linguistic distribution of unagreement in the next section, and a more detailed survey of underdiscussed unagreement data from Modern Greek in section 3. Section 4 outlines the theoretical issue raised by the phenomenon for theories of agreement. In section 5, I specify the notion of adnominal pronoun constructions (APCs) and present a cross-linguistic correlation between their structure and the availability of unagreement. Section 6 presents the details of my analysis. In section 7, I show how several predictions of the analysis are borne out. Section 8 summarises the results and points out some open questions.

2 The cross-linguistic distribution of unagreement

There has been ample recognition in the literature of unagreement in Spanish, as well as a variety of analyses, cf. Bosque and Moreno (1984); Hurtado (1985); Taraldsen (1995); Torrego (1996); Ordoñez (2000); Saab (2007); Longobardi (2008); Rivero (2008); Rodrigues (2008); Villa-García (2010); Ackema and Neeleman (2013). Instances of unagreement in other languages have received less attention though and to my knowledge there are very few accounts attempting to explain the cross-linguistic distribution of unagreement. Those previous accounts will be dealt with in section 4 and 6.3 below.

As for further instances of unagreement, Norman (2001) and Osenova (2003) deal with Bulgarian, for Modern Greek the phenomenon is mentioned by Stavrou (1995, 236f., fn. 33) and analysed in more detail by Choi (2013).[2] In the remainder of this section I am going to survey various instances of the unagreement phenomenon to identify relevant factors determining its cross-linguistic distribution.

The examples in (2) show five cases of unagreement following the Spanish pattern. The first three are from Romance. Catalan and Galician are found on the Iberian Peninsula, while Aromanian (or Vlach) is a minority language spoken in Greece. Furthermore, I provide an example of unagreement from each of Modern Greek and Bulgarian. Note that each language allows for both first and second

[2] Norman also notes previous treatments of Bulgarian by Stojanov (1964, 313) and Popov (1988, 11) and refers to Piper (1998, 28-29) for the availability of a similar construction in Slovenian and its absence in Bosnian-Croatian-Montenegrin-Serbian (BCMS).

person plural subject agreement marking in these contexts. For reasons of space I will give only one example per language here. Unattributed examples were elicited by the author.

(2) a. Els estudiants vam fer un pastís.
DET.PL students AUX.1PL make a cake
'We students baked a cake.' [Catalan]

b. Os estudantes fixestes pan.
DET.PL students made.2PL bread
'You students made bread.' [Galician]

c. Pikurar-li adrem pini.
shepherd-DET.PL baked.1PL bread
'We shepherds baked bread.' [Aromanian]

d. Oi odigoi de tha pjite.
DET.NOM.PL drivers NEG FUT drink.2PL
'You drivers won't drink.' [Greek]

e. Studenti-te izpekoxme keks.
student-DET baked.1PL cake
'We students baked a cake.' [Bulgarian]

Furthermore, unagreement is not restricted to Indo-European languages as the examples in (3) from Swahili (Niger-Congo), Georgian (Kartvelian) and Warlpiri (Pama-Nyungan) show. It may be noticed that in contrast to the previous examples there are no overt definite articles involved here. This is clearly due to the general lack of definite articles in these languages.

(3) a. Wa-nafunzi m-me-oka m-kate.
PL-student 2PL-PST-bake SG-bread
'You students baked a bread.'[3] [Swahili]

b. Monadire-eb-ma irem-i da-v-i-č'ir-e-t
hunter-PL-ERG deer-NOM PV-SUBJ.1-CV-catch-AOR-SUBJ.1.PL
'We hunters caught the deer.' [Georgian]

c. Ngarka ka-rnalu purlami.
man AUX-1PL shout
'We men are shouting.'[4] [Warlpiri]

All clear cases of unagreement that I am aware of involve languages with null subjects. As pointed out by a reviewer, French may pose a possible problem for that generalisation. While French is typically not assumed to allow pro-drop, at least some varieties of the language seems to allow constructions such as (4), which look reminiscent of unagreement.

(4) a. Les etudiants, *(nous) avons ri.
DET.PL students we have.1PL laughed
'The students, we have laughed.' [French]

b. Les etudiants, *(on) a ri.
DET.PL students ON AUX.3SG laughed
'The students, we have laughed.' [French]

[3] The plural marker *wa-* corresponds to noun class 2 in the Bantuist tradition.
[4] Adapted from Lyons (1999, 144, (14c))

While I will not attempt to give an account of the French data here, it seems important to point out that a subject clitic, either the first plural *nous* or the impersonal *on* replacing *nous* in colloquial French, is mandatory in these expressions. If these clitics are indeed in subject position, this would suggest that the unagreeing DPs are actually (left-)dislocated, with the clitics representing resumptive pronouns. This would dissimilate these structures from standard unagreement, which is not restricted to left-peripheral "subjects" (see section 3.1). While this would raise further questions as to the relation between the dislocated phrase and the resumptive pronoun, it should be noted that under the analysis to be proposed here French seems to display the appropriate nominal structure for unagreement (cf. section 6.1), which could prove important for understanding the French facts above.

Alternatively, French subject clitics could actually represent subject agreement, in line with the proposal that colloquial French has null subjects (Zribri-Hertz 1994; Roberts 2010c; Culbertson 2010). In a similar vein, notice that Kayne (2009) proposes a silent first person plural pronoun NOUS for the analysis of the colloquial first plural use of impersonal *on*. In the current context, these analyses would suggest that some form of pro-drop is possible in French at least in the environment relevant for the phenomenon in (4), which in this case would indeed represent a form of unagreement.

Pending an analysis of the French data, I will tentatively assume that pro-drop is a necessary condition for unagreement (cf. also Choi (2013) for the same view). Crucially, however, pro-drop is clearly not a sufficient condition for unagreement, as pro-drop languages like Italian, European Portuguese (EP), Bosnian-Croatian-Montenegrin-Serbian (BCMS) and Turkish disallow the prototypical unagreement configuration, as illustrated in (5) and (6).

(5) a. *Gli studenti lavoriamo molto.
DET.PL students work.1PL much
intended: 'We students work much.' [Italian]

b. *Os portugueses bebemos bom café.
DET.PL Portuguese drink.1PL good coffee
intended: 'We Portuguese drink good coffee.' [EP]

c. *A diákok megsütöttük a tortát.
DET students baked.1PL the cake
intended: 'We students baked the cake.' [Hungarian]

(6) a. *Studenti smo kupili kronpire.
students AUX.1PL bought.PL potatoes.PL
intended: 'We students bought potatoes.' [BCMS]

b. *Kız-lar dans et-me-yi sev-er-iz.
girl-PL dance make-INF-ACC like-AOR-1PL
intended: 'We girls like to dance.' [Turkish]

The presence of a definite article is a hallmark of the classical unagreement configurations in (2). Nevertheless, the existence of article-less languages with unagreement (3) and of languages with a definite article but without unagreement (5) suggests that unagreement is not related to the lack of an overt article *per se*. The relevance for unagreement of the definite article in those languages that have it will become clearer in section 5, where I will argue that the availability of una-

greement correlates with the locus of definiteness marking in adnominal pronoun constructions (APCs).

For the rest of this paper, I will only be concerned with null subject languages showing overt definite articles, i.e. the contrast between the languages in (2) and (5). The question of how the current analysis relates to the languages without articles in (3) will remain open for future research.

3 Unagreement in Modern Greek

For a more detailed view of the phenomenon, this section presents the contexts in which unagreement can be found in Modern Greek. I will also indicate where Greek unagreement behaves differently from what has been reported in the literature for Spanish.

3.1 Definite plural noun phrases

The prototypical unagreement configuration in Greek consists of a nominative definite plural DP and first or second plural agreement on the verb. As in Spanish, the DP may in principle appear pre- or postverbally, cf. (7) and (8).[5]

(7) (Oi odigoi) de tha pioume (oi odigoi) apopse.
DET.NOM.PL drivers NEG FUT drink.1PL tonight
'We drivers won't drink tonight.'[6]

(8) (Oi chimikoi) ftiaksate (oi chimikoi) ena oraio keik.
DET.NOM.PL chemists made.2PL a good cake
'You chemists made a good cake.'

Some speakers report a slight degradation with postverbal subjects. This seems to be mainly an information-structural effect due to independent restrictions on VSO orders (Roussou and Tsimpli 2006). In appropriate contexts, postverbal unagreeing subjects are accepted by those speakers as well. Consider a setting in which a group of students and professors occasionally have dinner together. Usually, everybody pays for themselves, but one day one of the professors might utter (9) to a student looking for her or his wallet.

(9) Min psaxneis to portofoli sou, tha plirosoume [oi kathigites]
NEG search.2SG DET wallet your FUT pay.1PL DET.NOM.PL professors
apopse.
tonight
'Don't look for your wallet, tonight we professors are going to pay!'

An overt pronoun is optionally possible in unagreement constructions, cf. (10), and its use seems to be emphatic.

[5] For a brief discussion of what looks like cases of singular unagreement cf. section 7.4.

[6] In the interest of readability, I will mark case and number only on the article in the Greek examples. I will not mark gender, except where it is central to the argument.

(10) (Emeis) oi ergazomenoi tha antistathoume.
we DET.NOM.PL workers FUT resist.1PL
'We workers will resist.'

DPs involving demonstratives are clearly disallowed in unagreement configurations, i.e. with first or second person plural agreement, as the contrasts in (11) show.

(11) Aftoi oi odigoi de tha *pioume/*pieite/pioune.
these DET.NOM.PL drivers NEG FUT drink.1PL/2PL/3PL
only: 'These drivers won't drink.'

3.2 Quantifiers

Most Greek quantifiers can appear as unagreeing subjects as shown in (12), rather similar to what has been observed for Spanish.

(12) a. Oloi oi mathites tha pame ekdromi.
all.NOM.PL DET.NOM.PL pupils FUT go.1PL trip
'All of us pupils will go on a trip.'
b. Polloi/ oi perissoteroi/ merikoi/ ligoi/
many.NOM.PL DET.NOM.PL most.NOM.PL some.NOM.PL few.NOM.PL
pente mathites tha pame ekdromi.
five pupils FUT go.1PL trip
'Many/ most/ some/ few/ five (of us) pupils will go on a trip.'

In contrast to their Spanish counterpart *ninguno* in (13) however, negative quantifiers in Greek cannot participate in unagreement relations as shown in (14).[7] The example containing the first plural pronoun *mas* as a restrictor seems slightly less degraded to some speakers. Since those sentences are nevertheless judged to be unacceptable, this may plausibly represent a performance effect, maybe comparable to number attraction effects in English (**The key to the cabinets are on the table*), cf. e.g. Bock and Miller (1991) and Wagers et al. (2008).

(13) Ninguno hablamos varios idiomas.
no one.SG speak.1PL several languages
'No one of us speaks several languages.' (Rivero 2008, 230, (31b))

(14) a. ?*Kaneis apo mas de tha pame ekdromi.
Nobody of us NEG FUT go.1PL trip
b.

* Kaneis	de tha pame ekdromi.	[*nobody*]
* Kanenas	de tha pame ekdromi.	[*nobody*]
* Kanenas mathitis	de tha pame ekdromi.	[*no pupil*]
?*Kaneis apo mas	de tha pame ekdromi.	[*no one of us*]
?*Kanenas apo mas	de tha pame ekdromi.	[*no one of us*]

Furthermore, the contrast in (15) shows that the Greek distributive universal quantifier *kathe* 'each' also differs from its Spanish counterpart *cada* with respect to unagreement, irrespective of the presence of the optional definite article (Spanish

[7] *Kaneis* and *kanenas* differ wrt. whether they allow a nominal complement.

example from Ackema and Neeleman 2013, 315, (48)). For present purposes, I assume that Greek *kathe* does not regularly allow unagreement.[8]

(15) a. Cada alumno hablamos differente.
each student.SG talk.1PL differently
'Each of us students talks differently.'
b. *(O) kathe mathitis milame diaforetika.
DET.NOM.SG each pupil speak.1PL differently

This variation in the availability of unagreement with different quantifiers is probably not related to the distinction between weak and strong quantifiers. *Kanenas* and *kaneis*[9] qualify as weak quantifiers, as they occur in existential constructions like (16).

(16) Den echei kanena (mathiti) ston kipo.
NEG has.3SG no.ACC.SG pupil in.the garden
'There is no one/no pupil in the garden.'

On the other hand, the other quantifier that is at least restricted with respect to unagreement, universal *kathe*, is clearly strong, cf. (17). Furthermore, quantifiers like *ligoi* 'few' or *polloi* 'many' qualify as weak quantifiers just like negative *kaneis*, see (18), while still allowing unagreement.

(17) *Echei kathe mathiti ston kipo.
has.3SG each pupil in.the garden

(18) Echei ligous/ pollous mathites ston kipo.
has.3SG few.ACC.PL many.ACC.PL pupils in.the garden
'There are few/many pupils in the garden.'

[8] Examples such as (i) and (ii) are grammatical only in the presence of some phrase "supporting" their distributivity. Furthermore, the definite determiner with the quantifier *kathe* is dispreferred and there is a preference for the quantified phrase to be located postverbally in these cases (Dimitris Michelioudakis p.c.).

(i) Milame (?o) kathe mathitis *(diaforetiki glossa).
speak.1PL DET.NOM.SG each pupil different.NOM.SG language
'Each of us students speaks a different language.'

(ii) Tha pame ekdromi (?o) kathe mathitis *(se alli chora).
FUT go.1PL trip DET.NOM.SG each pupil to other.NOM.SG country
'Each of us students will go on a trip to a different country.'

Michelioudakis (2011, 110, fn. 27) notes that the Greek distributive quantifier behaves exceptionally in other respects as well. In Greek, indirect objects can be expressed either by PPs like *ston kathigiti* 'to the professor' or the genitive *tou kathigiti* 'of the professor'. Usually, only a genitive indirect object can be doubled by a clitic, but if the PP contains the quantifier *kathe* paired with an indefinite distributee, it may exceptionally be doubled by a genitive clitic too, cf. (iii) adapted from Michelioudakis (2011, 110f., (43a)).

(iii) Tous anethesa ena arthro ston kathena.
CL.GEN.PL assigned.1SG a.ACC.SG article to.DET.ACC.SG each.ACC.SG
'I assigned them an article each.'

[9] The accusative forms of *kanenas* and *kaneis* are identical.

So while the weak-strong distinction does not seem to be a common denominator of the two types of quantifiers that disallow unagreement (negative quantifiers and distributive universal *kathe* 'each'), the way they pattern with respect to "regular" third person agreement distinguishes them from the quantifiers that license unagreement. Both control singular agreement and have a singular restrictor as shown in (19) and (20) respectively. The remaining quantifiers, which allow unagreement, appear with plural restrictors and control plural agreement on the verb in third person readings as exemplified in (21). Since unagreement typically involves plural verbal agreement, the relevant difference between Greek and Spanish in this respect may have to do with the number specifications of the negative and distributive universal quantifiers. While I cannot provide a full account here, I offer some speculations in section 7.1.

(19) Kanenas mathitis de tha paei/*pane ekdromi.
nobody pupil NEG FUT go.3SG/3PL trip
'No pupil will go on a trip.'

(20) (O) kathe mathitis tha paei/*pane ekdromi.
DET.NOM.SG each pupil FUT go.3SG/3PL trip
'Each pupil is going to go on a trip.'

(21) Oloi oi mathites tha pane/*paei ekdromi.
all.NOM.PL DET.NOM.PL pupils FUT go.3PL/3SG trip
'All pupils will go on a trip.'

3.3 Object unagreement

While clitic doubling of direct objects is restricted to certain varieties of Spanish, Greek generally allows clitic doubling of direct and indirect objects (e.g. Anagnostopoulou 2006). A similar mismatch phenomenon as with subject unagreement can also be found between an object and its co-referent clitic.

Example (22) has a second person plural accusative clitic coreferring with the direct object DP, yielding the apparent person mismatch characteristic of unagreement. The word order is VOS with the subject bearing main stress in order to ensure that the object is clitic-doubled rather than just right-dislocated (Anagnostopoulou 2006, 546f.). Notice that it is possible for the direct object to contain an overt second plural pronoun *esas* in addition to the clitic. This version is more prone to displaying intonational breaks before and after the *esas tous protoeteis* constituent, but they are by no means obligatory.

(22) Sas eide (esas) tous protoeteis enas fylakas na
2PL.ACC saw.3SG you.PL.ACC DET.ACC.PL first.graders a guard SBJ
ta kanete mantara sto grafeio tou diefthydi.
3PL.ACC.N make.2PL mess in.the office DET.GEN.SG director
'A guard saw you first graders making a mess in the director's office.'

Indirect object doubling displays the same behaviour. Example (23) shows unagreement between the first person plural genitive clitic *mas* and the genitive object *ton foititon*. Just as with direct object doubling, the doubled indirect object may – but need not – contain a full pronoun in addition to the doubling clitic.

(23) O kathigitis mas edose (emas) ton kainourgion
DET.NOM.PL professor 1PL.GEN gave.3SG us.GEN DET.GEN.PL new
foititon merikes plirofories gia to mathima.
students some information about DET.ACC.SG course
'The professor gave us new students some information about the course.'

4 The theoretical challenge of unagreement

Asymmetric theories of agreement treat subject-agreement morphology on the verb as dependent on, or controlled by, the φ-features of the subject. For concreteness, consider the *probe-goal* conception of Chomsky (2001, 2004, 2008). On this view, a head acts as a probe by virtue of having an unvalued feature and enters into an Agree relation with the closest element with a corresponding valued feature in its c-command domain. The relevant value of the goal is then transfered onto the probe by the Match operation, which Roberts (2010a, 60, (29)) characterises as follows:

(24) Given a well-formed Agree relation of which α and β are the terms (i.e., Probe or Goal) where α's feature matrix contains [Att_i:__] and β's contains [Att_i: val], for some feature Att_i, copy val into __ in α's feature matrix.

Under this view, the φ-features of the subject DP are interpretable, while the verbal ones on the probe T are uninterpretable, entering the derivation unvalued. Unagreement configurations present a challenge to this view. If full DPs are analysed as grammatically third person, the verbal first or second person agreement found in unagreement configurations is unexpected. The characterisation of the problem depends on which feature specification is assumed for third person.

If third person is actually a "non-person" (Benveniste 1971), marked by the the *absence* of features relating to discourse participants (Harley and Ritter 2002; Panagiotidis 2002), then the verbal φ-features, more precisely the person features (assumed here to be located on a T head) in unagreement configurations seem to simply lack a nominal controller, cf. (25).

(25) $\text{DP}_{\text{subj}}\{\varphi\text{: }\_\_\}\ldots\text{T}\{\varphi\text{: [participant]}\}$ [3rd = non-person]

If third person is represented by substantive features, e.g. [-author, -participant] (Nevins 2007, 2011), unagreement configurations look like an outright mismatch between the φ-features on the subject and T, see (26).

(26) $\text{DP}_{\text{subj}}\{\varphi\text{: [-auth, -part]}\}\ldots\text{T}\{\varphi\text{: [+auth, +part]}\}$ [specified 3rd person]

Both cases present a challenge for asymmetric theories of (subject verb) agreement, since the Match operation of (24) seems to fail to apply. The analyses proposed for unagreement in the literature roughly fall into the following categories.

1. Assume that the actual agreement controller in unagreement configurations is a silent category somehow related to the "unagreeing" DP.
2. Assume that verbal φ-features are interpretable.
3. Assume that a probe may agree only with a subset of the goal's features, with the remaining features valued by alternative mechanisms (Villa-García 2010).

4. Assume that the overt subject DP actually carries first/second person plural φ-features.

The present analysis will be based on the fourth view, involving a functional head Pers in the extended nominal projection hosting the (eventually not so) "hidden"[10] person features. Before turning to the details of the proposal, I will use the remainder of this section to briefly discuss each of the alternative approaches.

4.1 DP_{subj} is not the agreement controller

In these accounts, the overt DP_{subj} is in fact not the subject, but related to the actual subject and agreement controller, typically *pro*, by means of either an A-Bar chain (sec. 4.1.1) or apposition (sec. 4.1.2).

4.1.1 Dislocation

Here, the overt DP in unagreement configurations is left dislocated and forms an A-Bar chain with the silent pronominal subject of the clause, cf. e.g. Hurtado (1985) and to my understanding also Torrego (1996). Sentence initial full DP subjects in null-subject languages have indeed been argued to be left dislocated (e.g. Alexiadou and Anagnostopoulou 1998; Ordóñez and Treviño 1999). The fact that unagreement is not restricted to sentence initial subjects, however, is problematic for an account relying on left-dislocation.

Ackema and Neeleman (2013) discuss and reject a hypothetical solution for unagreement with non-initial subjects in terms of a 'low dislocation' configuration, distinct from hanging-topic and clitic left-dislocation. While it may be possible to capture the facts in that way, such an analysis would merely shift the problem of φ-feature mismatches to a different location. In typical dislocation contexts, such φ-mismatches are disallowed, cf. (27). This begs the question of why a feature mismatch should be allowed between the head of a 'low-dislocation' A-Bar chain and its foot, while being disallowed in other, otherwise similar relations.

(27) a. The boys, they like playing with puppets.
b. *The boys, we like playing with puppets.

Ackema and Neeleman (2013, 319, (58)) also refer to cross-linguistic data indicating that negative quantifiers cannot be dislocated, cf. Spanish (28). This poses a problem for a dislocation analysis of unagreement with, e.g., *ninguno* 'nobody' in Spanish (cf. (13) above).

(28) a. Juan$_1$, nosotros lo$_1$ vimos.
Juan we him saw.1PL
'As for John, we saw him.'
b. *Nadie$_1$, nosotros lo$_1$ vimos.
no.one we him saw.1PL

[10] Terminology borrowed from Ackema and Neeleman (2013).

4.1.2 Apposition

A related approach views the overt DP in unagreement configurations as an apposition to the silent pronominal subject of the clause. Bosque and Moreno (1984) and, in my understanding, Rodrigues (2008) follow this approach for Spanish and so does, judging by Norman's (2001) summary, Popov (1988) for Bulgarian. Den Dikken (2001) assumes this type of analysis for British English "pluringulars" of the *the committee have decided* type and Costa and Pereira (2013) adopt it to explain how European Portuguese *a gente* 'we' (literally 'the people') comes to trigger first plural agreement.

This type of analysis capitalises on the possibility of an overt pronoun in the core unagreement cases, cf. e.g. (29) repeated from (10) above.

(29) (Emeis) oi ergazomenoi tha antistathoume.
we DET.NOM.PL workers FUT resist.1PL
'We workers will resist.' [Greek]

The underlying assumption here is that *we linguists*-type adnominal pronoun constructions are to be analysed as 'close' apposition (Cardinaletti 1994), usually represented as a form of adjunction, and that unagreement involves basically the same structure with *pro* instead of an overt pronoun. I will argue against an appositional analysis of these structures and for a modified version of the pronominal determiner analysis (Postal 1969) in section 5.

While maintaining an appositional analysis of adnominal pronoun constructions, Ackema and Neeleman (2013) note a further issue based on Cardinaletti and Starke's (1999) hypothesis that null pronouns behave like weak pronouns. Based on Dutch and German data, they suggest that apposition is not allowed with weak pronouns (cf. Dutch strong *wij studenten* 'we students' vs. weak **we studenten*). If apposition to weak pronouns is disallowed and null pronouns are weak pronouns, then apposition to a null pronoun cannot be the correct analysis for unagreement.

4.2 Interpretable verbal φ-features

If we assume that third person is indeed underspecified for φ-features as in (30), repeated from (25) above, the structure seems to be fine under the assumption that T does not obligatorily agree with the subject DP – maybe because Agree might be fallible in the sense of Preminger (2011). Analyses based on this type of consideration are usually related – though not always explicitly – to the hypothesis that in null subject languages verbal inflection satisfies the EPP and receives the subject theta-role of the verb (Jelinek 1984; Borer 1986; Barbosa 1995; Alexiadou and Anagnostopoulou 1998).

(30) $\mathrm{DP}_{\mathrm{subj}}\{\varphi\text{: }\_\_\}\ldots\mathrm{T}\{\varphi\text{: [participant]}\}$ [3rd = non-person]

One possible implementation of this would be that there is indeed no agreement between T and the subject and that the person features on T are truly interpretable.

Under the view that φ-features are interpreted on nouns, on the other hand, some mechanism would need to transfer them from T to DP because unagreeing subjects are crucially interpreted as involving the speaker or addressee respectively, hence as first or second person. This would seem to imply a reversed Agree relation, with T valuing the subject's φ-features. I will discuss the two options in turn.

4.2.1 No Agree

Building on Uriagereka's (1995) big DP analysis for clitic doubling, Ordóñez and Treviño (1999) and Ordoñez (2000) suggest that subject agreement inflexion is a clitic heading a big DP containing the doubled subject. This big DP inherits the φ-features of the clitic and the doubled DP by Spec-head agreement, accounting for the fact that pronouns coindexed with an unagreeing DP have to agree with person expressed by the verbal inflexion. This seems to imply the assumption that there is no actual Agree relation between the doubled subject and the verb.

This solution seems unattractive since the issue does not seem to be a general lack of agreement. Some relationship between the subject agreement clitic and the doubled DP still needs to be referred to in order to distinguish between licit and illicit feature mismatches. While some illicit mismatches might be ruled out by markedness considerations or incompatibilities when the φ-features combine at the big DP level, examples like (31) pose a problem (for this line of argument and similar Spanish examples cf. Saab 2007, 4). Under the suggested analysis, it is not clear why a third plural pronominal DP cannot combine with first plural subject inflexion or the other way around.

(31) a. *Aftoi katalavainoume.
they understand.1PL
b. *Emeis katalavainoun.
we understand.3PL

Moreover, to the extent that this proposal extends to other consistent null subject languages like Italian and European Portuguese, it still leaves the cross-linguistic variation of unagreement unaccounted for.

4.2.2 Reverse Agree or symmetric agreement

Mancini et al. (2011) suggest a mechanism of "reverse Agree," but do not provide technical details for this operation. The most detailed account of unagreement following this general idea that I am aware of is given by Ackema and Neeleman (2013). They develop an analysis of unagreement based on a symmetric theory of agreement, i.e. nominal and verbal φ-features are generated independently.[11] Their account makes use of the following further assumptions:

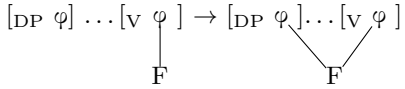
– φ-feature geometries (Harley and Ritter 2002) with third person radically underspecified for φ-features; cf. (25) above
– DPs and verbs can be associated with φ-features (cf. autosegmental phonology), with these associations manipulable by syntactic operations

[11] Cf. also Osenova 2003 for a comparable analysis of Bulgarian within HPSG. Lexicalist theories like LFG (Bresnan 2001, ch. 8) and HPSG (Müller 2008, ch. 13) standardly assume a symmetric view of agreement.

– a grammatical architecture of "mappings between semantics and LF, between LF and PF, and between PF and phonology" (Ackema and Neeleman 2013, 5) with specific well-formedness conditions on mappings and representations

The operation they claim to be responsible for unagreement is φ-feature spreading. As illustrated in (32), this causes φ-features base-generated on the verb to be associated with the third person subject, which is, by assumption, initially underspecified for φ-features. For further details on their proposal and how the application of this rule is restricted the reader is referred to the original paper.

(32) φ-feature spreading (Ackema and Neeleman 2013, 302, (19))



While Ackema and Neeleman's (2013) account deals well with the core unagreement data, it does not offer a satisfactory explanation for the cross-linguistic distribution of the phenomenon. They suggest that the availability of feature spreading is what sets Spanish apart from Italian in that respect. However, the explanatory power of that statement seems rather limited. Unless feature spreading is shown to operate elsewhere in the grammar, this is basically a restatement of the fact that Spanish has unagreement and Italian does not.

4.3 Alternative valuation

Villa-García (2010) suggests that unagreement and a number mismatch phenomenon point to a re-evaluation of Chomsky's (2001) Agree system. The claim is that the Maximize Matching Effects Condition may be violated in Spanish to the effect that exactly one φ-feature on a probing T may remain syntactically unvalued. This feature is then free to receive a value by other means, e.g. through pragmatics. That approach hence entails that semantic or pragmatic operations can, by determining the verbal inflexion, influence PF. While this may not be excluded in principle, it entails a high theoretical cost given the theoretical model with separate PF and LF interfaces assumed here. From this perspective, this seems to be a last resort option at best.

4.4 Hidden features

According to the hidden-feature view (terminology adopted from Ackema and Neeleman 2013), which I will adopt for my proposal, unagreement does not involve a feature mismatch because the subject DP itself contains the φ-features expressed in the verbal agreement morphology. The appearance of a mismatch arises because these features are not overtly expressed on the agreement controlling DP.

In her discussion of "non-appositions", Stavrou (1995, 236f., fn. 33) sketches an analysis of unagreement that may be seen as a hidden feature account. For an unagreement example like (33) she suggests that the structure of the subject is something like (34).

(33) Oi kalitechnes agapame ti fysi.
DET.NOM.PL artists love.1PL DET.ACC.SG nature
'We artists love nature.'[12]

(34) [DP [D *pro*] [DEFP [DEF oi] [NP kalitechnes]]]

Indeed, this structure could plausibly capture the unagreement facts if the first or second person φ-features of *pro* project to the whole DP, which is expected if *pro* is the head of the construction. The representation in (34) may seem at odds with the common assumption that *pro* is phrasal. The underlying intuition that there are covert φ-features in the unagreeing subject DP nevertheless seems to be on the right track and to some extent the above representation actually foreshadows the account to be developed here.

There are two recent proposals following this line of thought. Saab (2007) proposes that D^0 carries person features in Spanish. However, he does not address the cross-linguistic distribution of unagreement or the issue of adnominal pronoun constructions to be discussed in section 5. Choi (2013) builds on the parallel of unagreement to adnominal pronoun constructions and suggests that unagreement results from a null pronoun in SpecDP. I will discuss the crucial differences to the present account in section 6.3.

A hidden feature account is explicitly rejected by Norman (2001) and Ackema and Neeleman (2013, 310f.). The latter adduce four points of criticism:

1. psycholinguistic data indicating a three-way distinction between agreement, unagreement and failure of agreement (Mancini et al. 2011)
2. the absence of R-expressions with inherent person features in Spanish
3. the "apparent universal absence of a spell-out of such features on R-expressions" (Ackema and Neeleman 2013, 310)
4. difficulties in accounting for the cross-linguistic variation of unagreement

I will briefly address their first three points here. The rest of the paper aims to show that the fourth criticism is unfounded and that a hidden feature account makes correct predictions for the cross-linguistic distribution of unagreement.

In an ERP experiment on Spanish, Mancini et al. (2011) observe a three-way distinction between the processing of items with an agreement mismatch, regular agreement and unagreement. Ackema and Neeleman (2013) follow them in interpreting this as an indication for some kind of "reverse agreement" mechanism. Considering that Mancini et al.'s (2011) experimental material only contained preverbal subjects though, their results can at least as plausibly be interpreted as an issue of performance rather than competence grammar. Since the subject *x*nP is parsed before the verbal inflection, the parser is expected to make the default assumption that the subject without overt person marking is third person. Consequently, upon encountering the verbal inflection the parser will be forced to amend the structure (and interpretation) of the subject *x*nP. In "regular" agreement no such recovery mechanism needs to apply, accounting for the difference in behaviour between both types of agreement.

Point 2 does not seem particularly troublesome to me. In contrast to gender and number, person is a discourse-related property, dependent on the role of the denoted entity with respect to the speech act (cf. e.g. Heim 2008). An R-expression

[12] Spelling adapted. Stavrou has the more literal translation "the artists we love the nature."

with inherent person features would denote an entity that is *inherently* speaker, addressee or non-participant in a speech context. Maybe Portuguese *a gente* 'the people' in its first person plural use (Costa and Pereira 2013) could be viewed as such a case, but I find the scarcity of the phenomenon not very surprising.

Finally, contrary to Ackema and Neeleman's third claim above, overt person marking on DPs is actually attested and may provide an argument in favour of a hidden feature account. Lyons (1999, 143) gives the examples in (35) for person marked DPs in Nama/Khoekhoe (Khoi-San).[13]

(35)			
	tii kxòe-ta	(I person-1SG+M)	'*I man'
	saá kxòe-ts	(you person-2SG+M)	'*you man'
	kxòe-p	(person-3SG+M)	'the man'
	sií kxòe-ke	(we person-1PL+M)	'we men'
	saá kxòe-kò	(you person-2PL+M)	'you men'
	kxòe-ku	(person-3PL+M)	'the men'

With respect to these markers Rust (1965, 18) notes:

> Das Substantiv wird auch mit den Suffixen der 1. und 2. Person verbunden. [...] Wir haben ja auch im Deutschen solche Verbindungen wie 'ich Mann', 'du Mann', 'wir Hirten' u.s.w.
> (*The noun is also linked with the suffixes of first and second person. [...] We have similar expressions in German like "I man", "you man", "we shepherds" etc.)*

Nama shows that person marking of nouns is possible. Similar markers seem to be attested in Alamblak (Indo-Pacific; cf. Bruce 1984, 96f.), and the so-called proximate plural in Basque (Hualde and Ortiz de Urbina 2003, 122; Areta 2009, 67) may also instantiate a comparable category. In the following section, I will argue that the pronoun in adnominal pronoun constructions like *we linguists* is a realisation of person features in the nominal domain too.[14]

5 Adnominal pronoun constructions (APCs)

In this section, I will present a cross-linguistic observation regarding the expression of adnominal pronoun constructions and the availability of unagreement. I will summarise the main arguments for a pronominal determiner analysis of one type of APCs in section 5.2, and, in section 5.3, argue for an extension of that analysis to the other relevant type of APC, which will be crucial for the analysis of unagreement.

I am using the term APC as a cover term for referring expressions involving at least a pronoun and a noun, sometimes also described as pronoun-noun collocations.[15] Crucially, I limit this term to expressions that involve a single extended nominal projection (xnP), that is, I am excluding various kinds of "apposition" as will become clear later in this section.

[13] Cf. also Haacke (1976).

[14] For this parallel, compare also Rust's (1965) quotation above.

[15] The term *adnominal pronoun* is borrowed from Rauh (2003).

5.1 A cross-linguistic generalisation

Restricting our attention to languages with overt articles as indicated in section 2, we can observe the following patterns in our small sample. The null subject languages without unagreement but with articles discussed in section 2 proscribe the appearance of the article in APCs. I will call these type I APCs.

(36) Languages without unagreement

noi	**(*gli)**	studenti	[Italian]
nós	**(*os)**	estudantes	[European Portuguese]
mi	**(*a)**	diákok	[Hungarian]
we	DET.PL	students	

The null subject languages showing unagreement, on the other hand, have a mandatory definite article in APCs. I will refer to these as type II APCs.

(37) Languages with unagreement

a.	emeis	**i**	fitites	[Greek]
	nosotros	**los**	estudiantes	[Spanish]
	nosaltres	**els**	estudiants	[Catalan]
	nos	**os**	estudantes	[Galician]
	we	DET.PL	students	
b.	nie studenti-**te**			[Bulgarian]
	noi pikurar-**li**			[Aromanian]
	we students-DET.PL			

From these observations emerges a tentative generalisation of the following form:[16]

(38) Null subject languages with definite articles
- a. show unagreement if they have a definite article in APCs, and
- b. do not show unagreement if they have no definite article in APCs.

Before going on to present an analysis of unagreement drawing on this correlation in section 6, I will use the remainder of this section to discuss the syntactic structure of both types of APCs.

5.2 Pronominal determiners

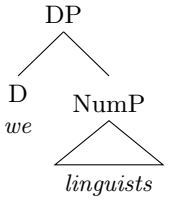
Most research on what I call APCs has been focused on type I APCs without a definite article, as illustrated in (36) above and for German and English below. I am not going to address here some issues specific to English, such as the preference of many speakers for the accusative form of the pronoun (*us students*) or the occasional occurence of what looks like the APCs found in unagreement (*we the linguists*).

[16] Choi (2013) makes basically the same observation. As with most descriptive generalisations, there are potential complications for this one. Arabic, Hebrew and Romanian have articles in APCs, yet lack standard unagreement. Upon closer inspection, the different nature of definiteness marking in these languages might turn out to be responsible.

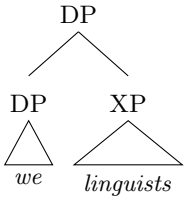
(39) wir Studenten [German]
we students

Postal's (1969) classical "pronominal determiner" analysis of these APCs treats the pronoun as an instance of the definite article, as illustrated in (40). This analysis has more recently been argued for by, e.g., Pesetsky (1978), Abney (1987), Lawrenz (1993), Lyons (1999), Déchaine and Wiltschko (2002), Panagiotidis (2002), Rauh (2003) and Roehrs (2005). A competing analysis, sketched in (41), takes the full noun to be an apposition to the pronoun. Variants of this "appositional" analysis have been assumed by Delorme and Dougherty (1972), Olsen (1991), Cardinaletti (1994), Ackema and Neeleman (2013), and all appositional analyses of unagreement that I am aware of (cf. sec. 4.1.2).

(40) pronominal determiner



(41) apposition



I am going to assume the pronominal determiner analysis because APCs differ from appositions in various ways. Consider some of the observations made by Pesetsky (1978). Pronominal indirect objects of particle verbs need to precede the particle, cf. Pesetsky (1978, (15)):

(42) a. He looked us up in the phone book.
b. *He looked up us in the phone book.

The examples in (43) from Pesetsky (1978, (16)) show that the same holds if the pronoun is accompanied by an apposition or a relative clause (a-c). The APC in (d), however, behaves like a "regular" full DP.

(43) a. *He looked up us, the local officers of the Elks.
b. *He looked up us, who were living in France then.
c. *He looked up us who sounded Kalmyk in the phone book.
d. He looked up us linguists in the phone book.

Moreover, the variation in case marking of the pronoun mentioned earlier is restricted to APCs, as shown in the following examples (Pesetsky 1978, 355, (17)).

(44) a. We, linguists from conviction, abhor computers.
b. *Us, linguists from conviction, abhor computers.
c. We linguists abhor a vacuum.
d. Us linguists abhor a vacuum.

Another point Pesetsky (1978, 354, (12)) raises exploits the scope variability of appositions which the noun in APCs lacks. The *some of us... others of us...* construction indicates a relation between two complementary subsets of set, so typically the restrictor nouns of both quantifiers need to be identical. Appositions can attach high, at the quantifier level, thereby licensing an appropriate reading of

the first sentence in (45). The APC does not allow that option, the nouns have to scope low, leading to the lack of a licit interpretation in (b).

(45) a. Some of us, linguists, think that others of us, philosophers, are crazy.
b. *Some of us linguists think that others of us philosophers are crazy.

Lawrenz (1993, ch. 6) produces several further arguments in favour of a pronominal determiner analysis, some of which I illustrate below using English examples.

1. availability of reinforcers:
they, the girls there and *you girls there* vs. **they, ∅ girls there*
2. proper names with obligatory definite article:
The/you Wright brothers are brilliant vs. **∅ Wright brothers are brilliant* and *they, *(the) Wright brothers, ...*
3. adverbials with appositions:
*the/you (*formerly) admirers of modern art...* vs. *you, formerly admirers of modern art,...*
4. restrictive post-nominal modifiers obligatorily located after complete pronoun-noun complex:
you rich boys with your fancy dresses vs. **you with your fancy dresses rich boys*; cf. *you with your fancy dresses, rich boys,...*
5. availability of APC in contexts where "loose apposition" is infelicitous
Back then we had dreams, we simple folks vs. %*Back then we had dreams, we, simple folks*
6. lack of comma intonation:
**we father and son...* vs. *we, father and son,...*; but: *we fathers and sons*

Furthermore, the pronominal determiner analysis also seems to be in a better position to explain why APCs are incompatible with indefinite expressions, cf. the contrast in (46) where only an appositional structure, marked by a clear comma intonation and optionally accompanied by *that is*, licenses the phrase in (46a).

(46) a. we, (that is) some students from California
b. *We some students from California

The above diagnostics focus on the distinction between APCs and "loose" appositions (Burton-Roberts 1975) and do not have much to say about the option of so-called "close" apposition as in *the poet Burns*. In fact, in some respects – e.g. the final three diagnostics quoted from Lawrenz (1993) and the definiteness restriction of (46) – these seem to pattern like APCs.

Nevertheless, there are several reasons to doubt that assimilation to close apposition offers the best analysis for APCs. First, Burton-Roberts (1975, 397) notes that close apposition has to involve a proper name (in fact, his analysis treats the first noun as a modifier of the proper name, parallel to *the ingenious Chomsky*). APCs, on the other hand, are not restricted in this way.

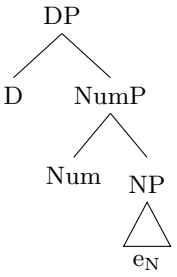
If one were to somehow claim that the pronominal part of APCs fulfilled that restriction, one would inevitably run into a further difference. While the pronominal element in APCs invariably comes first, the proper name comes last in the unmarked form of close apposition. While the latter allows an inverted variant with some form of contrastive interpretation (*Burns the poet*; (cf. Burton-Roberts 1975, 402)), APCs arguably only allow one order (**linguists you*).

Finally, Roehrs (2005) notes that adjectival modifiers cannot intervene between the first and the second noun in close appositions, while this is no problem – and indeed actually required – in APCs, cf. the contrasts in (47).

(47) a. the poet Burns, the number 5, the Brothers Grimm
b. *the poet skillful Burns, *the number interesting 5, *the brothers famous Grimm
c. you famous poets, we/us clever kids, you hazardous social-networking junkies

I conclude that type I APCs, found in languages without unagreement, have pronominal determiners as in (36). I assume that they parallel the structure of simple (strong) pronouns in that in both cases D bears definiteness and person features, which are eventually spelled out as a pronoun.[17] Following the analysis of pronouns in (48) proposed by Panagiotidis (2002), the crucial difference is that in simple pronouns a silent empty noun, e_N, forms the the core of the xnP instead of the full noun found in APCs (cf. also Elbourne 2005). The functional head Num is assumed to host number features.

(48)



5.3 High pronouns

The pronominal determiner analysis does not carry over directly to the type II APCs found in unagreement languages (Greek, Spanish...), where the definite article and the pronoun are not in complementary distribution. Indeed, this is sometimes used as an argument against the pronominal determiner analysis (Choi 2012). Instead of discarding of it though, I suggest an extension of the pronominal determiner analysis at the end of this section.

Considering that the lack of an overt definite article in type I APCs plays a role in several of the arguments above, an appositional analysis might seem more promising for type II APCs. Stavrou (1995) presents several differences between close and loose appositions in Modern Greek[18] (cf. also Stavrou 1990-1991,

[17] Following Roehrs (2005, 2006), the pronominal determiner may be moved to D from a lower art head.

[18] Discussing the distinction between string-equivalent sequences like *o aetos to pouli* 'the eagle (which is) a bird' and *o aetos, to pouli* 'the eagle, the bird,' Stavrou calls the former "non-appositions" and the latter *epexegesis* (from the Greek grammatical term επεξήγηση 'explanation, comment'). On the reading of Lekakou and Szendrői (2007, 2012), these correspond to close and loose appositions respectively.

Lekakou and Szendrői 2012 and references cited there). These include different intonational patterns, the availability of discourse markers like, e.g., *diladi* 'namely' with epexegesis only, restrictions on stacking for close appositions and the fact that only loose appositions may involve an indefinite DP: **enas kathigitis o Georgiadis*/**o Georgiadis enas kathigitis* vs. *enas kathigitis, diladi o Georgiadis* 'a professor, namely Georgiadis.'

This distinction also shows up in the contrast between the close apposition in (49a) and the one involving loose apposition in (49b), based on Stavrou (1995, 221) with transliteration adapted.

(49) a. Den eipa oti eida to Gianni to filo
NEG said.1SG that saw.1SG DET.ACC.SG Giannis DET.ACC.SG friend
mou, alla to Gianni ton kathigiti.
my but DET.ACC.SG Giannis DET.ACC.SG professor
'I didn't say I saw John my friend, but John the professor.'

b. ??Den eipa oti eida to Gianni, to filo
NEG said.1SG that saw.1SG DET.ACC.SG Giannis DET.ACC.SG friend
mou, alla to Gianni, ton kathigiti.
my but DET.ACC.SG Giannis DET.ACC.SG professor
'I didn't say I saw John, my friend, but John, the professor.'

She observes that in loose apposition "the first definite noun phrase [...] itself denotes a specific referent already established in the linguistic context or uniquely retrievable from the situation of discourse" (Stavrou 1995, 221). Accordingly, (49b) is deviant because it is tantamount to saying ??*Den eida to Gianni, alla to Gianni* 'I didn't meet John, but John.' APCs pattern with close apposition in this respect as shown by the parallel contrast in (50).

(50) a. De xasame mono emeis oi akadimaikoi, alla oloi emeis
NEG lost.1PL only we DET.NOM.PL academics but all we
oi polites.
DET.NOM.PL citizens
'Not only us academics lost, but all of us citizens.'

b. #De xasame mono emeis, oi akadimaikoi, alla oloi emeis,
NEG lost.1PL only we DET.NOM.PL academics but all we
oi polites.
DET.NOM.PL citizens

Further, Pesetsky's (1978) argument from the wider scope possibilities of loose appositions can be adapted to type II APCs. Morphological case marking in Greek also allows for a more fine-grained manipulation of the attachment of the apposition, since the apposition matches the case of the element it characterises. In (51a), the appositive – marked prosodically and detectable by the availability of *diladi* 'that is' – matches the case of the pronoun, yielding a contradictory low attachment interpretation where "us" is simultaneously exhaustively characterised as consisting of "the linguists" and "the physicists". In contrast, when the apposition case-matches the whole quantifier phrase as in (51b), the resulting high attachment interpretation is fine as in Pesetsky's (1978) English example. Notice that, while only the second sentence is felicitous, both options of attachment are grammatical for loose appositions.

(51) a. #Merikoi apo mas, (diladi) tous fysikous, pisteuoume,
some.NOM.PL of us.ACC that.is DET.ACC.PL physicists believe.1PL
oti alloi apo mas, (diladi) tous glossologous,
that others.NOM.PL of us.ACC that.is DET.ACC.PL linguists
einai treloi.
are crazy
'Some of us, namely of the physicists, believe that others of us, namely of the linguists, are crazy.'

b. Merikoi apo mas, (diladi) oi fysikoi, pisteuoume,
some.NOM.PL of us.ACC namely DET.NOM.PL physicists believe.1PL
oti alloi apo mas, (diladi) oi glossologoi,
that others.NOM.PL of us.ACC namely DET.NOM.PL linguists
einai treloi.
are crazy
'Some of us, (namely) the physicists, believe that others of us, (namely) the linguists, are crazy.'

APCs also yield an infelicitous low attachment reading under case matching between the pronominal and the following DP, cf. (52a). Crucially, however, the high attachment configuration involving case matching with the quantifier is not even grammatical as illustrated in (52b). This represents a further clear contrast between loose apposition and APCs.

(52) a. #Merikoi apo mas tous fysikous pisteuoume, oti
some.NOM.PL of us.ACC DET.ACC.PL physicists believe.1PL that
alloi apo mas tous glossologous einai treloi.
others.NOM.PL of us.ACC DET.ACC.PL linguists are crazy
'Some of us physicists believe that others of us linguists are crazy.'

b. *Merikoi apo mas oi fysikoi pisteuoume, oti
some.NOM.PL of us.ACC DET.NOM.PL physicists believe.1PL that
alloi apo mas oi glossologoi einai treloi.
others.NOM.PL of us.NOM DET.NOM.PL linguists are crazy

Finally, the definiteness effect observed in (46) for type I APCs holds for type II as well.

(53) a. emeis, (diladi) kapoioi foitites apo Patra
we that.is some students from Patras
'we, (that is) some students from Patras'

b. *emeis kapoioi foitites apo Patra
we some students from Patras

This all strongly suggests that type II APCs should be analysed differently from loose apposition, and in several respects behave rather similarly to close apposition. While they both display a tight structural coherence, there are reasons not to view type II APCs as simply a special form of close apposition.

Lekakou and Szendrői (2007, 2012) observe that close apposition involves a symmetric relationship between two nominal phrases so that "neither subpart of a close apposition is the unique head of the construction" (Lekakou and Szendrői 2012, 114; cf. also Roehrs 2005 for a different implementation of that insight),

and note an important contrast with APCs in that respect. Consider the following examples from Lekakou and Szendrői (2012, 114, (12); transliteration adapted). While the predicative adjective can agree in gender with either component of the appositive irrespective of their linear order, the APC in (54c) exclusively triggers first plural agreement on the verb. If we were dealing here with a close apposition of two DPs, first plural *emeis* and third plural *oi glossologoi*, we should instead expect a similar alternation as in the other two examples.

(54) a. O aetos to pouli einai megaloprepos/megaloprepo.
the.M eagle.M the.N bird.N is majestic.M/majestic.N
b. To pouli o aetos einai megaloprepos/megaloprepo.
the.N bird.N the.M eagle.M is majestic.M/majestic.N
'The eagle that is a bird is majestic.'
c. Emeis oi glossologoi piname/*pinane.
we.NOM the linguists.NOM are.hungry.1PL/are.hungry.3PL
'We linguists are starving/hungry.'

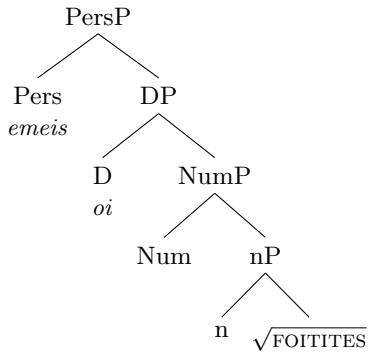
Another effect of this asymmetry between the pronominal and the "full" nominal part of APCs is that, as observed for type I too, in contrast to close apposition only one linear order is possible:

(55) a. Gia auto stenaxoriomaste emeis oi foitites.
for that worry.1PL we DET.NOM.PL students
'That's why we students are worried.'
b. *Gia auto stenaxoriomaste oi foitites emeis.
for that worry.1PL DET.NOM.PL students we

Lekakou and Szendrői (2012, 114) conclude from this difference that APCs are not close appositions and that "arguably the pronominal part is the unique head" in Greek APCs.

Building on the aforementioned proposal by Stavrou (1995, 236f., fn. 33) for Greek, I suggest a variant of the pronominal determiner analysis for type II APCs. While both types of APC consist of one xnP, in type II person is encoded in a functional head distinct from the one hosting the definite article. Departing from Stavrou, I assume that the definite article is located in D, while (interpretable) person features are hosted by a higher functional head Pers as illustrated in (56). Like D, Pers agrees with the Num head for number in order to be spelled out as *emeis* 'we'.

(56)



The underlying idea is that APCs do not arise from the combination of a third person DP *oi foitites* 'the students' with a pronominal DP like *emeis* 'we'. Instead, the pronominal simply spells out the person features of the xnP, just like in type I APCs. The crucial difference is that the latter encode definiteness and person on the same head, whereas the former (type II) encode person on a functional head higher than D. In the following section I am going to detail how this analysis of APCs extends to unagreement.

6 Nominal structure and unagreement

In this section, I develop a "hidden feature" analysis of unagreement building on the two types of APCs introduced in the previous section. The cross-linguistic variation is argued to derive from that variation in the structure of the xnP. For the technical details I adopt the framework of Distributed Morphology (Halle and Marantz 1993; Harley and Noyer 1999; Embick 2010), in particular the late insertion hypothesis: functional heads contain no phonological matrix until after spell-out, when vocabulary insertion takes place.

6.1 Deriving unagreement

The essence of a hidden feature analysis of unagreement is that the apparently unagreeing subject DP actually carries the φ-features reflected by the verbal agreement morphology. In the light of the above discussion, this suggests a straightforward parallel to APCs. This is supported by the following consideration. In (57) the verb shows third plural agreement with the subject DP. Loose apposition of the first plural pronoun is allowed, clarifying that the author of the utterance is a member of the group denoted by the subject.

(57) Gia auto stenaxoriountai oi foitites, (diladi) emeis.
for that worry.3PL DET.NOM.PL students namely we
'That's why the students, (namely) us/we, are worried.'

Consider, in contrast, the APC and the unagreement construction in (58). While the sentences are grammatical, the loose apposition is infelicitous in both cases. A plausible reason for this seems to be the fact that in both cases the subject DP

already encodes the author's membership in its denotation, making the apposition redundant.

(58) a. #Gia auto stenaxoriomaste emeis oi foitites, (diladi) emeis.
for that worry.1PL we DET.NOM.PL students namely we
b. #Gia auto stenaxoriomaste oi foitites, (diladi) emeis.
for that worry.1PL DET.NOM.PL students namely we

As we have seen in section 2, pro-drop is a necessary condition for unagreement. It seems a reasonable hypothesis, then, that unagreement relates to APCs like a "dropped" pronoun relates to an overt one. In the present analysis that means that the functional head encoding person features in APCs is simply not spelled out in unagreement. But what determines this difference between APCs and unagreement?

The use of overt pronouns is generally associated with emphasis in null subject languages, and indeed de Bruyne (1995, 145) notes for Spanish cases of unagreement that "the use of the subject pronouns would have an emphatic effect." Consider further that Rauh (2003, 415-418) argues that stressed pronominal determiners in German – a language without null subjects and with type I APCs – pattern with demonstrative pronouns and carry a [demonstrative] feature, while unstressed ones pattern with definite articles in lacking this property.

Against this background, I propose that unagreement corresponds to the version with an unstressed pronoun in lacking a demonstrativity feature, and the type II APC to the stressed counterpart by virtue of being demonstrative. The lack of demonstrativity in unagreement accounts for the fact that unagreement is ruled out with subjects containing a demonstrative, as shown in (11) in section 3.1 for Greek and in the example below also for Spanish.

(59) a. Los lingüistas me habéis estado molestando con vuestras
the linguists 1SG.ACC have.2PL been molesting with your
estúpidas preguntas.
stupid questions
'You linguists have been molesting me with your stupid questions.'
b. *Esos lingüistas me habéis estado molestando con vuestras
these linguists 1SG.ACC have.2PL been molesting with your
estúpidas preguntas.
stupid questions

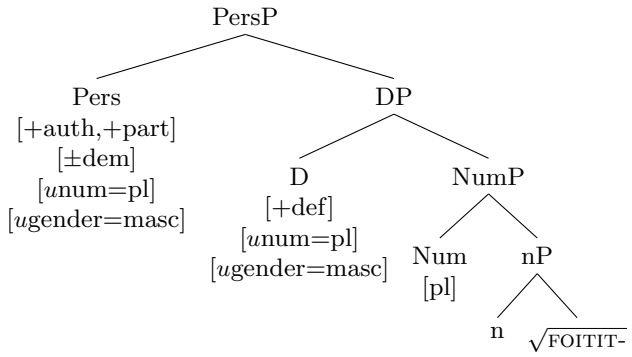
So DPs with a demonstrative do not allow anything but third person agreement. Furthermore, demonstratives cannot appear in APCs either, cf. Greek **aftoi emeis oi glossologoi* or English **these we/us linguists*. Put differently, adnominal pronouns are in complementary distribution with demonstratives. Moreover, notice that APC do not allow verbal agreement differing from the specification of the pronoun they contain, cf. the Greek example in (60). This resembles the behaviour of demonstratives observed above.

(60) Emeis oi odigoi de tha pioume/*pieite/*pioune.
we DET.NOM.PL drivers NEG FUT drink.1PL/2PL/3PL
only: 'We drivers won't drink.'

A plausible conclusion from these observations seems to be that deictic demonstratives are simply the third person variant of adnominal pronouns, and therefore realise the same head Pers.[19]

The proposed structure is illustrated in (61). For concreteness, demonstrativity is represented by a binary feature [±dem] on Pers. The notation [uF=Val] is used for convenience in order to indicate the initially unvalued, i.e. probing, features modelling xnP internal agreement. It does not represent a committment to a distinction between interpretable and uninterpretable unvalued features.

(61)



The Pers and D heads agree for number and gender with the relevant interpretable features in the xnP. The vocabulary item (VI) corresponding to a [-dem] Pers head can be null in NSLs[20] and underspecified for any φ-features, while a [+dem] specification leads to insertion of the specified forms as sketched in (62). Notice that the null spell-out of Pers is an independent point of variation, so there can be non-NSLs with the structure in (61), French maybe being a case in point (*nous les etudiants* 'we students'; cf. also the brief discussion in sec. 5.1).

(62) Pers[-dem] $\leftrightarrow \emptyset$
Pers[+auth,+part,pl,+dem] $\leftrightarrow$ *emeis*
Pers[-auth,-part,pl,masc,+dem] $\leftrightarrow$ *aftoi*

[19] On this view, one could entertain the hypothesis that postnominal anaphoric demonstratives are derived by movement of DP to Spec,PersP. Such an analysis offers a potential account for why in Spanish the definite article shows up with postnominal, but not prenominal demonstratives (*estos (*los) estudiantes* vs. **(los) estudiantes estos* 'these students'). Assuming that its absence with prenominal demonstratives is due to a morpho-phonological linear adjacency effect between Pers and D, movement of DP would bleed the necessary structure for this effect to apply.
A (maybe not very attractive) way to retain a phrasal analysis of demonstratives in this framework might be to assume that they move to Spec,PersP and that the realisation of Spec and head of PersP is subject to some contemporary version of the doubly filled COMP filter, e.g. the Edge(X) condition of Collins (2007) as stated by Terzi (2010, 180):

(i) a. Edge(X) must be phonetically overt.
b. the condition in (a) applies in a minimal way, so that either the head or the Specifier, but not both, are spelled out overtly.

[20] Some additional provision is needed to restrict this effect to positions that are φ-identified by a probe, cf. e.g. Roberts and Holmberg (2010), to prevent overgeneration of null objects.

As seems to be the case for the other languages discussed here, the definite article is a phonological clitic in Greek, more specifically a proclitic. Hence it needs to be hosted by a prosodic word to its right. Under the hypothesis that pronouns and demonstratives involve Panagiotidis's (2002) empty noun e_N, cf. section 5, we can observe a locality requirement that the host be – at least – a member of the same xnP as the article. Consequently, the article cannot be final in the xnP as illustrated in (63).[21]

(63) a. aftoi oi tragoudistes
these.NOM.PL DET.NOM.PL singers
'these singers'
b. aftoi oi diasimoi e_N
these.NOM.PL DET.NOM.PL famous e_N
'these famous ones'
c. aftoi (*oi) e_N 'these'

Considering that Bulgarian and Aromanian have enclitic rather than proclitic articles, a more general formulation of the constraint may be that the definite determiner (in the relevant languages) is silent iff no other overt material is contained in the DP, i.e. neither an overt noun nor an adjective.

This restriction is arguably not syntactic, since it relies on the phonological properties of the members of DP. I assume instead that the restriction applies after spell-out on the way to PF. For concreteness, I model it in terms of contextually conditioned allomorphy, specifically Embick's (2010) $\mathbb{C}_1$-LIN theory. Since the pronoun in APCs forms a separate prosodic word, it seems a reasonable assumption that the DP defines a separate PF cycle in Embick's terms. We can then say that the null VI in (64) is inserted iff no overt material (more specifically, no prosodic word) is contained in the same PF domain. This holds irrespective of the cliticisation direction of the article in the specific language, and should hence extend to Bulgarian and Aromanian.[22]

(64) D[+def] $\leftrightarrow \emptyset$ / __ $]_{\text{PF cycle}}$
D[+def,pl,masc] $\leftrightarrow$ *oi*

Notice that this proposal follows the intuition of the 'Stranded Affix' filter of Lasnik (1981, 1995). It also relates to Embick and Noyer's (2001) proposal for the treatment of Scandinavian definiteness marking as, among others, the result of a morphophonological requirement that "$D_{[def]}$ must have a host" (p. 581). The cases under discussion here seem to make use of a different strategy to avoid a violation of this constraint, namely non-spell out of D instead of insertion of a supporting morpheme as in the cases of Swedish and Danish discussed by Embick and Noyer (2001).

According to the present analysis, the overtness of Pers and NumP in the xnP configuration in (61) is determined independently of their context but only

[21] For the same intuition compare also Ioannidou and den Dikken (2009, 399): "[...]the phonological properties of the MG definite articles are such that they demand something to their right within the complex noun phrase: being proclitic, they cannot be final in DP. [...] whenever [the article] is stranded in final position, the copy of the definite article in this [final] position must remain silent."

[22] A less general alternative would be to state that no overt material may *follow* the head at vocabulary insertion. However, this would not account for Bulgarian and Aromanian.

according to their inherent properties – namely by the specification of [±dem] for Pers and the phonological properties of the constituents of NumP respectively. The overtness of definite D, on the other hand, is dependent on the phonological properties of its complement and hence contextually determined. The interaction between the two independent variables can be mapped onto attested constructions as in (65), illustrating the suggested connection between APCs, pronouns, null subjects and unagreement.

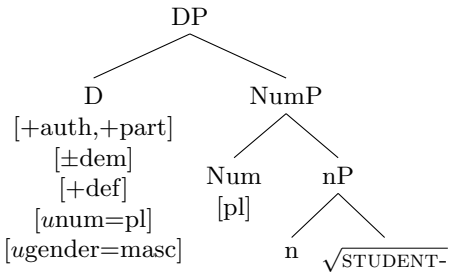
(65) Possible realisations of xnP (61)

	overt Pers	silent Pers
overt NumP	APC	**unagreement** (regular DPs)
silent NumP (e_N)	pronoun	*pro*

6.2 Type I APCs and the lack of unagreement

Adopting the [±dem] feature yields the structure in (66) for the xnP of type I APCs. Notice that (66) might be derived from the structure of type II APCs in (61) by head-movement of D to Pers and subsequent fusion, or alternatively it might be an effect of Svenonius's (2012) spanning. I will not further discuss this question here, since the simple version in (66) is sufficient for present purposes.

(66)



Notice that, as with type II APCs, the structure in (66) is independent of whether a given language shows pro-drop, cf. German or English APCs. For the purpose of investigating unagreement, I will however focus on null subject languages with this configuration, in particular on the example of Italian. As we have seen above, this language lacks the typical unagreement configuration, i.e. (67) is ungrammatical with the definite article instead of a pronoun matching the verbal agreement morphology. Furthermore, zero spell-out of the head bearing person features as we have seen for Greek above also leads to ungrammaticality, cf. (68).

(67) Noi/ *gli studenti lavoriamo molto.
we the.PL students work.1PL much
'We students work a lot.' [Italian]

(68) *Studenti lavoriamo molto.
students work.1PL much
intended: 'We students work a lot.'

The problem with (67) is accounted for if we assume the VIs in (69), leaving aside the phonological conditions governing the use of *gli* vs. *i* for the definite article.[23] If the VI corresponding to the definite article is specified as [-auth,-pers], it simply does not compete for insertion into a D node specified for [+auth,+part]. If it were underspecified for person features, on the other hand, the subset principle (Halle 1997; Harley and Noyer 1999) dictates the use of the most specific VI for a given node. Hence, the more specific *noi* would be inserted. Either way, the ungrammatical version of (67) simply does not arise.

(69) D[+auth,+part,+def,pl] ↔ *noi*
D[(-auth,-part,)+def,pl,masc] ↔ *gli*

If (68) were a licit unagreement construction, it would apparently have to involve a definite bare plural. However, bare plurals are generally ruled out in subject position in Italian (Longobardi 1994). The relevant languages furthermore lack silent definite articles, which Panagiotidis (2002, 126f.) uses as an argument against an analysis of Greek- and Italian-type null subjects in terms of radical zero spell-out of all heads in the xnP.

I suggest that there is a null VI for D like (70) in Italian-type languages after all, *pace* Panagiotidis (2002), but that it is an allomorph of the overt article restricted to contexts without other overt material in its spell-out domain, just like its Greek counterpart in (64) above. This may again be tentatively connected to the cliticising nature of the definite article. Due to the pronominal determiner structure associated with type I APC, this VI is also used in the derivation of null subjects, and hence by hypothesis sensitive to a [-dem] feature.

(70) D[+def,-dem] ↔ $\emptyset$ / __ $]_{\text{PF cycle}}$

This facilitates a radical zero spell-out analysis of *pro* as shown in (71) and simultaneously rules out definite bare plurals because once there is an overt noun (or adjective) in the xnP, the contextual condition for (70) is not met. This is the reason the potential unagreement configuration in (68) is unavailable.

The overtness of NumP is intrinsically determined by the phonological properties of its constituents, just as described for type II APCs above, and the same contextual condition determines that definite D can be silent iff there is no overt material in its PF domain. In a type I APC structure, however, this restriction simultaneously applies to the overtness of person features, which are encoded on the same head. A [-dem] specification is no longer a sufficient condition for their silence. Only if the contextual condition is fulfilled, i.e. if NumP is silent, can a [-dem] feature yield the phenomenon known as *pro* by not spelling out any head in xnP. If NumP is overt, the contextual condition on the VI in (70) is not met, so D necessarily receives overt spell-out in accordance with its feature specifications, either as a personal pronoun or a definite article. Since NumP by definition contains overt material in unagreement configurations, null spell-out of D cannot arise. This yields the impoverished range of spell-out options illustrated in (71), with a gap in the configuration that would be unagreement.

[23] Since Italian behaves like German with respect to pronominal determiners, I assume that the VI *noi* is underspecified for [±dem]. Alternatively, there might be two VIs differentiated by intonational properties.

(71) Possible realisations of xnP (66)

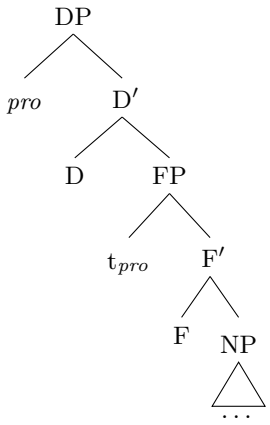
	overt D_{pers}	silent D_{pers}
overt NumP	APC/regular DP	—
silent NumP (e_N)	pronoun	*pro*

In summary, I suggest a unified treatment of APCs, unagreement, pronouns and *pro* with vocabulary insertion restricted to terminal nodes (following Embick 2012). This analysis accounts for the connection between null subjects and unagreement and offers a principled explanation for a relevant subset of the cross-linguistic variation in the availability of unagreement.

6.3 Phrasal *pro* vs. silent head

The account advocated by Choi (2012, 2013) shares with the above analysis the insight that the variation in APC structures is instrumental in understanding the cross-linguistic distribution of unagreement. One crucial difference is the assumption that the pronouns in APCs and *pro* in unagreement are phrasal constituents moved to Spec,DP as illustrated in (72).

(72)



A second difference lies in the way that the cross-linguistic variation is captured. Choi (2013, (20)) suggests the two conditions in (73) for the licensing of *pro* by T. The second one importantly restricts unagreement to languages with type II APCs.

(73) a. Condition on T^0:
A given language must be a consistent *pro*-drop language. That is, T^0, as a result of agreement with the PNC subject, must manifest inflectional morphology rich enough to license the conventional *pro*-drop.

b. Condition on D^0:
D^0 must be overtly realized by a definite article (but, being a mediating *pro*-drop licenser, may not be fully specified with its *phi*-features as T^0).

Choi leaves open which point in the derivation the conditions in (73) apply at. To the extent that these are syntactic conditions, (73b) seems to imply that *pro* imposes a direct requirement on the phonological form of another syntactic element in order to be licensed. This seems problematic in light of the idea that syntactic processes should be blind to phonological properties, and it moreover strongly implies a lexicalist view of grammar. The late insertion hypothesis assumed in non-lexicalist frameworks (Halle and Marantz 1993; Borer 2005) would preclude any possibility of syntax being sensitive to the realisation of functional morphemes.

Furthermore, there seems to be another conceptual aspect which makes the current proposal more interesting. Choi's model adopts *pro* as a silent phrasal category, requiring either its existence in the lexicon as a phrase or some kind of a phrasal spell-out account, e.g. in the spirit of Neeleman and Szendrői (2007). The analysis proposed here, on the other hand, adopts the hypothesis that spell-out applies to terminal nodes only (Embick 2012) and derives *pro* by null spell-out of all heads involved in an xnP. Hence, it suggests a way to dispose of *pro* as a primitive of the theory (cf. also Holmberg 2005 and Roberts 2010b).

Empirically, both accounts appear to be on equal footing as far as coverage of basic unagreement is concerned. It is not clear, however, whether the licensing account can deal with quantificational unagreement data of the type discussed in section 3.2. Several of those cases crucially lack an overt definite article, so according to (73b) *pro* should not be licensed. In the present account, on the other hand, this type of unagreement finds an explanation as outlined in section 7.1.

Similarly, the condition on D^0 (73b) in the licensing account would run into problem with respect to unagreement in languages without overt determiners (e.g. Georgian, Swahili, cf. sec. 2). In the absence of a worked out account of these forms of unagreement in either framework, this issue has to remain open for the moment. While I have kept these data outside the scope of the present discussion as well, the account advocated above could potentially accommodate the availability of unagreement in Georgian and Swahili as opposed to its absence in BCMS by assuming a Greek-type structure for the former and an Italian type structure for the latter, since the absence of unagreement is not directly related to the overtness of D, but rather to the interaction of syntactic structure and the specification of vocabulary items.

7 Predictions

The proposal advanced in the previous section makes the predictions in (74). In this section I will discuss some evidence suggesting that they are indeed borne out.

(74) a. If [±dem] is indeed connected to demonstrativity, non-definite expressions should not appear with overt (i.e. [+dem]) pronouns.

b. Unagreement is not a feature of a language *per se*, but results from the spell-out possibilities facilitated by the structural configuration of type II APCs. If a null subject language expresses definiteness and person separately in some cases only, those cases should allow unagreement.

c. Since unagreement is traced to properties of the nominal domain, it should be detectable in other instances of verbal agreement, e.g. object unagreement.
d. To the extent that the suggested parallel between APCs and unagreement is real, one might expect for unagreement to reproduce the singular-plural asymmetry typically observed for APCs. That is, cases of plural unagreement would be available rather freely, while instances of singular unagreement would be rare or marked – though not necessarily unattested (cf. singular APCs in German).

7.1 Quantificational unagreement and [-dem]

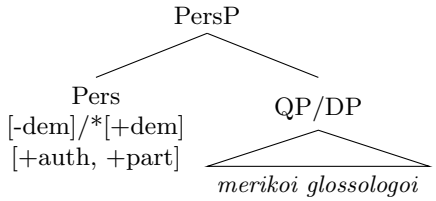
The fact that quantificational unagreement configurations (sec. 3.2) do not have counterparts with overt pronouns seems to undermine the correlation between APCs and unagreement. Ackema and Neeleman (2013) observe that this is a problem for appositional and hidden feature accounts of unagreement, which are built on this correlation. It turns out, however, that the present account actually predicts this pattern by (74a).

The quantificational unagreement configuration in (75) is ungrammatical with an overt pronoun, but well-formed in its absence. The verbal inflection is for first person plural, in accordance with the interpretation of the sentence. Under present assumptions this indicates that the subject actually contains the relevant person features.

(75) (*Emeis) merikoi mathites tha pame ekdromi.
we some students FUT go.1PL trip
'Some of us students will go on a trip.'

Let us assume that [±dem] is indeed connected to demonstrativity as suggested in section 6 with reference to Rauh's (2003) [demonstrative] feature. It seems plausible that definite reference is a precondition for demonstrativity/deicticity. It seems clear that these quantified phrases do not involve definite reference.[24] It then follows that they cannot sustain a [+dem] feature either, cf. (76). Since only [+dem] Pers receives overt spell-out, overt pronouns are consequently ruled out in this configuration.[25]

(76)



[24] Note that Ackema and Neeleman's (2013) contrast between "quantificational" and the simple "referential" unagreement is presumably based on exactly this property.

[25] A potential, if limited, correlate of these considerations is the overall absence of determiners with these kinds of quantifiers in Greek. Against this background, the somewhat unexpected definite article in *oi perissoteroi* 'most' deserves further attention.

Numerals of the type *emeis oi dyo foitites* 'we the two students', where Pers can receive an overt spell-out, do not constitute an exception, but rather underline the role definiteness plays in this context. They obviously involve a "real" definite DP, denoting a specific set of people. The numeral simply indicates its cardinality. This contrasts with properly quantifying numerals, which do not involve an article and cannot sustain overt Pers: **emeis dyo foitites* 'we two students'. The difference in the semantics of these phrases is illustrated by the contrast between (77a) and (77b).

(77) a. Tha pame pente mathites sto theatro kai oi
FUT go.1PL five pupils in.the theatre and DET.NOM.PL
ypoloipoi tha %pame/pane sto sinema.
remaining.PL FUT go.1PL/3PL to.the cinema
'Five of us pupils will go to the theatre and we/the others will go to the movies.'

b. Tha pame oi pente mathites sto theatro kai
FUT go.1PL DET.NOM.pl five pupils in.the theatre and
oi ypoloipoi tha *pame/pane sto sinema.
DET.NOM.PL remaining.PL FUT go.1PL/3PL to.the cinema
'We five pupils will go the theatre and *we/the others will go to the movies.'

Both sentences are fine with third person agreement in the second clause, but their status differs when there is first person unagreement in the second clause. Most of my consultants accept the first sentence with first plural agreement on both verbs as a felicitous utterance in a situation where 5 out of a group of pupils will go to the theatre and the rest, including the speaker, will go to the movies.[26] The corresponding sentence in (77b), with the numeral in the scope of the article, is incoherent for all speakers.

This is explained if the articled version refers to a specific group of pupils including the speaker. Naturally, the speaker cannot simultaneously be a member of the "others" group going to the cinema, as presupposed by the use of first person unagreement in the second clause. For the first example, this problem does not arise: the speaker is only presupposed to be a student by quantificational unagreement, but not necessarily a member of the group going to the theatre.[27]

Notice further that floating quantifiers are more permissive than the remaining quantifiers with respect to the realisation of Pers. The Greek and Spanish sentences in (78) both allow an overt person marker.

(78) a. (Emeis) oi foitites pigame oloi ekdromi.
we DET.NOM.PL students went.1PL all trip
'All of us students went on a trip.'/'We students all went on a trip.'

b. (Nosotros) los estudiantes vamos todos a la playa.
we the students go.1PL all to the beach
'All of us students go to the beach.'/'We students all go to the beach.'

[26] One consultant found this reading marginal, hence the % marking. Note that the sentence is unacceptable with past tense, plausibly for semantic reasons.

[27] As noted in the previous footnote, this underspecification of the utterance author's belonging to one group or the other is only possible in future contexts. For a more detailed treatment of the semantics involved, cf. [author] in preparation.

As far as unagreement is concerned, the analysis from section 6 directly extends to the floating quantifier cases. The restrictor of the quantifier is a regular PersP subject to the presupposition introduced by Pers. The crucial point is that the overt realisation of Pers is supported by a definite article in these expressions, in contrast to the quantifiers discussed above.

Finally, unagreement with Spanish *ninguno* 'nobody', cf. (13) in section 3.2, and *cada* 'each', cf. (15), deserves special mention as it is not attested in Greek. With respect to the Spanish data, Ackema and Neeleman (2013) suggest that this possibility is a result of the lack of contrasting plural forms for these quantifiers. Their principle of Maximal Encoding (essentially a variant of Kiparsky's (1973) Elsewhere Condition or Halle's (1997) Subset Principle) only blocks plural agreement morphology with singular subjects if there is an alternative plural form of the subject. This account runs into problems with the Greek data. Neither *kathe* 'each' nor *kaneis* 'nobody' (nor their variants discussed in sec. 3.2) have a plural form. Nevertheless, unagreement is strictly out with *kaneis* and restricted to specific distributive contexts with *kathe* (cf. fn. 8). Ackema and Neeleman's (2013) account predicts the same pattern for Greek and Spanish contrary to fact.

While it may be possible to retain their intuition that the relevant Spanish quantifiers are underspecified for number, in the face of the Greek data it does not seem feasible to directly derive this from the lack of a paradigmatic opposition, i.e. the generalisation "that quantificational unagreement is allowed with plural quantifiers, and with singular quantifiers as long as they do not have a plural counterpart" (Ackema and Neeleman 2013, 317) cannot be quite correct.

It seems that Bulgarian and Aromanian pattern with Greek in ruling out unagreement with these two types of quantifiers. On the other hand, Galician and Catalan seem to behave similar to Spanish, although, interestingly, the relevant cases of unagreement with these quantifiers, while available, seem to be systematically more marked in Catalan than in Spanish (Javier Fernández Sanchez, personal communication).[28] It remains an open question how the liberality of some Iberian languages as opposed to the restrictivity of the mentioned Balkan languages is explained or whether one of the options is more marked than the other.

7.2 Variation within one language

The prediction (74b) that unagreement is not an inherent property of a language, but rather dependent on structural configurations, is supported by data from European Portuguese.

Usually, unagreement is not an option in EP as shown by (79a). This correlates with the absence of a definite article in APCs, as discussed in section 5.1. However, Costa and Pereira (2013) note that APCs in EP have a definite article if they involve a numeral, as shown in (79b). Strikingly, it is with exactly these types of nominal constituents that unagreement seems to be possible in EP after all in

[28] I have found a speaker of Spanish raised in Venezuela who only seemed to allow third person singular agreement with *cada* and *ninguno*. To the extent that this could be shown to be a stable pattern, one might speculate that some South American varieties of Spanish are more restrictive than Peninsular ones with respect to unagreeing negative and universal distributive quantifiers. If this is on the right track, the Spanish pattern could be an areal effect.

spite of its general unavailability for simple DP subjects. This is illustrated by the examples in (79c), due to João Costa (personal communication).

(79) a. Nós/*os portugueses bebemos bom café.
we/the Portuguese drink.1PL good coffee
'We Portuguese drink good coffee.'
b. nós os dois
we the two
c. Ficamos os dois estudantes em casa.
stayed.1PL the two students in house
'We two students stayed at home.'

These observations support the hypothesis that the availability of unagreement is dependent on xnP structure, and in particular on the independent exponence of person and definiteness features in type II APCs. They also present a complication for analyses assuming specific operations to be responsible for the presence or absence of unagreement, such as Ackema and Neeleman's (2013) φ-feature spreading discussed in sec. 4.2.2. In view of the EP data, such an operation would have to be present in the language in spite of the overall lack of unagreement. It is not clear to me how the operation could be non-stipulatively restricted to apply only in the appropriate contexts, so a structure-based account such as the present one seems to be more straightforward.

7.3 Object unagreement

The object unagreement data in section 3.3 have shown that, in addition to subject unagreement, Greek also allows (apparent) person mismatches between objects and object clitics. Similar facts hold for Spanish, as exemplified in (80) by the relation between the first person plural clitic *nos* and the indirect object *a los familiares* 'to the relatives', and in the Bulgarian example in (81), where the direct object *studentite* 'the students' is doubled by a second person plural clitic.

(80) La policia nos dio a los familiares las malas noticias.
the police 1PL gave to the.PL relatives the.PL bad.PL news.PL
'The police gave us relatives the bad news.' [Spanish]

(81) Včera vi vidjax studenti-te v ofisa.
yesterday 2.PL saw.1SG students-the in office
'Yesterday, I saw you students in the office.' [Bulgarian]

Note that usually only certain southern American varieties of Spanish (Rio-Platense) allow clitic doubling of non-pronominal direct objects, while Peninsular Spanish restricts it to indirect objects. In that context, the observation in (82) that even Peninsular Spanish allows object unagreement with direct objects suggests that object unagreement might differ in some way from clitic doubling in the third person, although at this point I have nothing else to say about these data (but cf. Torrego 1998, 63f. and below).

(82) Nos denunciaron a las mujeres.
1PL denounced.3PL to the.PL women

'They denounced us women.' (Hurtado 1985, 202, (20a))

It is worth noting that, independently of clitic doubling, object unagreement can also be found in cases that more clearly involve object agreement, cf. the Georgian example in (83) due to George Hewitt (personal communication).

(83) (Tkven čven) utsxoel-eb-s ra-s mo-gv-ts-em-t.
you.PL us foreigner-PL-DAT what-DAT PV-us-give-THEMATIC-PL
'What will you(pl) give us foreigners?' [Georgian]

These instances of object unagreement do not come as a surprise under the present analysis. As far as languages with object agreement are concerned, a probe with unvalued φ-features agrees with the features encoded within the object xnP, just as in subject unagreement and the same considerations as above apply. Under an analysis of clitic doubling as a form of object agreement (e.g. Sportiche 1996; Franco 2000), nothing more needs to be said.

An alternative line of research (e.g. Uriagereka 1995; Papangeli 2000) relates clitics to determiners, suggesting that they head an argument DP. These D heads receive a theta-role from the verb and eventually head-adjoin to the verb, accounting for their clitic properties. Clitic doubling is explained in terms of a "big DP", where the doubled DP is located either in the specifier of the clitic determiner (Uriagereka 1995) or in its complement (Papangeli 2000).

The big DP hypothesis raises some questions as to whether first and second person clitics in unagreement languages start out in Pers instead of D, in which case we would actually be dealing with a big PersP, or whether they are special D heads with unvalued φ-features that agree with those in the doubled object. The common argument for the big DP hypothesis from the parallels in form between articles and third person clitics seems to favour the latter view, as does the fact that in the present discussion Pers has so far only been taken to spell out full rather than clitic pronouns.[29] In this case, the clitic D head simply agrees with the φ-features of the xnP in its specifier or complement, while the Pers features in that xnP can remain silent as discussed.

7.4 Number asymmetry

Pronominal determiner structures, i.e. type I APCs, have been observed to show a rather consistent singular-plural asymmetry cross-linguistically (e.g. Delorme and Dougherty 1972; Pesetsky 1978; Lyons 1999, 141-145). While plural APCs seem to be readily available in many languages, their singular counterparts are usually highly restricted if at all available. English, for example, restricts singular pronominal determiners to second person exclamations (**I idiot*, *you idiot!*), they cannot be subjects of declarative sentences. To the extent that a singular APC like *you linguist!* is acceptable, it is likely to be construed as emotionally loaded.

In contrast, German singular APCs are less restricted. They can be used as arguments, most commonly with emotively marked expressions/epithets at the

[29] The latter also seems to impede any attempt to reduce object unagreement to a configuration where the Pers head in a simple xnP head-adjoins to the verb as a clitic. An empirical argument against this kind of analysis comes from the fact that the clitic doubled argument can also be a full APC, cf. sec. 3.3.

lexical core (84), but in principle also with "emotionally neutral" nouns, cf. (85) adapted from Rauh (2004, 96). There seem to be stricter contextual restrictions on the use of singular APCs as compared to plural ones (Rauh 2004), so a singular-plural asymmetry is attested here as well.

(84) **Ich Idiot** hab vergessen die Tomaten zu kaufen!
I idiot have forgotten the tomatoes to buy
'I stupidly [=I idiot] forgot to buy the tomatoes!'

(85) Auf meinem Planeten gibt es Dinge, die **du Mensch**
on my planet exist EXPL things REL you.NOM.SG human
dir gar nicht vorstellen kannst.
you.DAT.SG PRT not imagine can.2SG
'There are things on my planet that you, being human, cannot even imagine.' [German]

Against the background of the proposal that unagreement is basically a special form of APC, it is not surprising that there is a singular-plural asymmetry for unagreement as well. Spanish, for instance, rules out singular unagreement altogether, with regular nouns (86) as well as emotively marked ones (87).

(86) *El estudiante trabajé muchas horas ayer.
the student worked.1SG many hours yesterday

(87) *El imbécil no compré/compraste los tomates.
the idiot NEG bought.1/2SG the tomatoes
intended: 'I/you idiot didn't buy the tomatoes.'

In contrast to Spanish, Greek allows cases of singular unagreement, most readily with emotionally charged nouns like *vlakas* 'stupid, idiot' as in (88) or the expressions *o anthropos* 'the human' or *i gynaika* 'the woman', which indicate a certain emotional involvement as well, cf. (89).[30]

[30] For many speakers, second person singular unagreement seems to be harder to access. This is probably due to interference from the vocative, which is used frequently in Modern Greek, particularly in contexts involving emotives like *vlakas* 'stupid, idiot'. The already rather restricted singular unagreement seems to lose the competition against the common vocative construction for these speakers. This is illustrated in (i). The particle *re* indicates familiarity (Karachaliou and Archakis 2012; see also Tsoulas and Alexiadou 2005).

(i) a. ??O vlakas den pires tis domates?
DET.NOMSG idiot NEG took.2SG DET.ACC.PL tomatoes
intended: 'Didn't you idiot take the tomatoes?'
b. Re vlaka, den pires tis domates!
PRT idiot.VOC NEG took.2SG DET.ACC.PL tomatoes
'You idiot, you didn't take the tomatoes!'

However, instances of second person singular unagreement can be found, cf. examples such as (ii) from `http://forum.eimaimama.gr/t11189p800-topic` [accessed 26 February 2013] and relayed to me by Dimitris Michelioudakis (personal communication).

(ii) Ti travas i gynaika?
what suffer.2SG DET.NOM.SG woman
'What do you woman (have to) go through?'

(88) I went to the market to buy some vegetables...

a. ... kai xechasa o vlakas tis domates.
and forgot.1SG DET.NOM.SG idiot DET.ACC.PL tomatoes
'and I stupidly [= I idiot] forgot the tomatoes.'

(89) Ti travao i gynaika!
what suffer.1SG DET.NOM.SG woman
'What do I woman go through!'

The fact that emotively marked nouns are more readily available for unagreement is illustrated by the contrast in (90). Importantly, the German examples in (91) show a comparable pattern.

(90) We wanted to meet early in the morning for our day trip...

a. ... alla o malakas argisa.
but DET.NOM.SG idiot was.late.1SG
'... but stupidly I [= I idiot] was late.' [Greek]

b. *... alla o odigos argisa.
but DET.NOM.SG driver was.late.1SG
intended: '... but I, the driver, was late.' [Greek]

(91) a. ... aber ich Trottel hab mich verspätet.
but I fool have.1SG myself be.late
'... but stupidly I [= I fool] was late.' [German]

b. *... aber ich Fahrer hab mich verspätet.
but I driver have.1SG myself be.late
intended: '... but I, the driver, was late.' [German]

Nevertheless, in both languages it is also possible to use less marked nouns if they can be related to the context as in (93) – the Greek version was kindly provided by Dimitris Michelioudakis (personal communication).

(92) Yesterday, I went to the bookstore...

a. ... kai pali xechastika o glossologos ston orofo me
and again got.lost.1SG DET.NOM.SG linguist in.the floor with
ta lexika.
the dictionaries
'... and I linguist lost myself again on the floor with the dictionaries.'
[Greek]

b. ... und da hab ich (alter) Linguist mich mal wieder bei
and there have.1SG I old linguist myself PRT again at
den Wörterbüchern verlustiert.
the dictionaries spent.time
'... and I old linguist had a good time again on the floor with the dictionaries.' [German]

In these examples, the subject indicating that the speaker is a linguist may provide a justification for the contextually relevant interest in dictionaries.

Regarding the general lack of singular unagreement in Spanish, Torrego (1996, 115f.) notes that "[t]he fact that floating definites have to be plurals also seems to be rooted in semantics [...] Since singulars denote atomic individuals, they

are entities that are not distributable." Based on a similar intuition, Rauh (2004) suggests to treat the restricted availability of singular APCs in German as an effect of the conversational maxims of relevance and quantity (Grice 1975). The noun in plural APCs is relevant insofar as it helps to disambiguate reference. In singular APCs, on the other hand, the complement nominal needs to add new information about speaker or hearer or highlight some property speaker/hearer the relevance is not directly clear to the speaker. This explanation naturally extends to Greek singular unagreement under the current proposal.[31]

The main reason to introduce these data here is that they illustrate a striking parallel between German singular APCs and Greek singular unagreement. In both languages, emotively marked nominal expressions are easily available in these constructions, while common nouns need some additional contextual cue. While an explanation for the lack of argumental singular APCs in English and singular unagreement in Spanish is still outstanding, the present view implies that an explanation for one of these phenomena would provide an account for the other one as well. I defer to future research the investigation of the relation of singular and plural constructions of these sorts to epithets, which seem to differ in their binding properties from both R-expressions and pronouns (cf. Lasnik 1991).

8 Conclusion

In this paper, I have suggested an essentially morphosyntactic account of unagreement and (at least part of) its cross-linguistic distribution. On the basis of the cross-linguistic correlation between the structure of adnominal pronoun constructions like *we students* and the availability of unagreement, I have argued that the latter results from null spell-out of a functional head Pers distinct from D, encoding person and demonstrativity in the extended nominal projection. In languages like Italian with pronominal determiners these features are encoded directly on D. An interaction of this structure with morphophonological properties of the relevant vocabulary items leads to the observable restrictions on the non-spell-out of person in the latter structures.

Empirically, I have pointed out two differences between Greek and Spanish, the classical case study of unagreement. In contrast to Spanish, Greek has not only plural but also limited singular unagreement, which seems to parallel the singular APCs found in German. Spanish, on the other hand, allows unagreement with quantifiers like *ninguno* 'nobody' and *cada* 'each', while their Greek counterparts are ungrammatical (or much more restricted in the case of *kathe* 'each').

The empirical generalisation in (93) appears to provide an approximate description of the correlation between unagreement and APCs, although it should be taken with care. As with many empirical generalisations, its most important

[31] Notice that the contrast between the unacceptability of the emotionally neutral nouns in (90) and (91) and the acceptability of (92) may not be accounted for by Rauh's approach alone. It is at least feasible that the fact that the speaker was the designated driver for the trip in (90) would be relevant new information, since it would explain why it was particularly bad for him to be late. The distinction between stage-level and individual-level predicates may play an additional role here. Possibly, (90) and (91) are bad because the property the APC is based on is a stage-level property, i.e. it is not the speaker's profession that is under discussion, but his temporal assignment as driver for the day trip.

use may lie in providing a heuristic to discover potential deviations which require further inquiry.

(93) Null subject languages with definite articles
  a. show unagreement if they have a definite article in APCs, and
  b. do not show unagreement if they have no definite article in APCs.

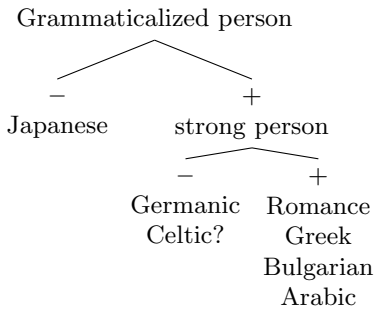
One potential exception to (93) may be provided by Southern Italian Romance varieties like Northern Calabrese. Preliminary data indicate that this language shows unagreement, although it seems to proscribe the definite article in APCs. Historically, this and other Southern Italian varieties have been in contact with Greek (e.g. Ledgeway 2013), which may provide a diachronic basis for the emergence of such a pattern. Synchronically, this may indicate that there is no syntactic problem of deriving unagreement from type I APCs. Instead, this could provide further support for the morphosyntactic approach advocated here, if the blocking of unagreement in languages like Standard Italian is due to a third person specification of the vocabulary item realising the pronominal determiner, while languages like Northern Calabrese could have developed a featurally underspecified vocabulary item instead. These issues are a subject of ongoing research.

The morphosyntactically based analysis proposed here could feasibly be extended to unagreement in languages without overt articles such as Georgian, Swahili and Warlpiri, although it remains for future research to work out the details. Moreover, the relation of unagreement to other phenomena of (apparent) agreement mismatches deserves further attention. This includes effects of gender mismatch observed, e.g., in Russian (Corbett 2006, 158), but also number mismatches with the Spanish quantifiers *cada* and *ninguno* and the restricted cases of unagreement with the Greek distributive quantifier *kathe*, as well as with collective nouns (e.g. Greek *emeis i palia genia* 'we the old generation', but also British English *the committee have decided*).

On a general note, the current proposal suggests a unified structural analysis of APCs, unagreement, pronouns (at least strong pronouns in the sense of Cardinaletti and Starke 1999) and *pro* on the basis of various possibilities of spelling out different parts of the proposed structure of the xnP.

Independently of the current perspective, Longobardi (2008) advances the hypothesis that the denotation of individuals is facilitated by person and that the person head is represented by D. He suggests a distinction between strong and weak person languages, cf. (94). The former "refer to individuals [...] by overtly associating the lexical content of nouns to Person" (p. 204), whereas weak person languages do not have to establish the association overtly.

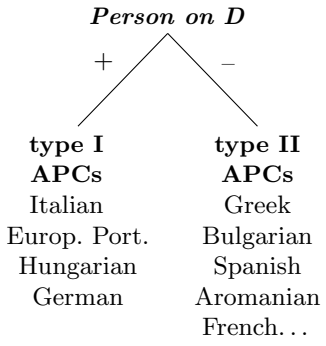
(94) Generalized *nominal mapping parameter* (in Chierchia's (1998) perspicuous terminology) (Longobardi 2008, 207, (51))



He observes that unagreement is only found in strong person languages and speculates "that an implication exists between the parametric status of D as Person in nominals and its ability to control full-range (i.e. not necessarily 3rd person) agreement; namely, the latter property would be an option only among strong Person languages" (p. 204). If we assume some variant of the pronominal determiner analysis, this prediction seems to be too strong unless further qualified, since a weak person language like German arguably does in fact allow non-3rd person agreement with DPs involving a pronominal determiner (cf. *Ihr Linguisten schreib-t viel* 'You linguists write-2PL a lot').

The distinction between type I and type II APCs can be descriptively displayed as in (95). The analysis of unagreement proposed here, based on this distinction, cross-cuts Longobardi's (2008) classes of strong and weak Person languages. Weak Person languages like German and English as well as strong person languages like Italian can have type I APCs (and lack unagreement).

(95)



Notice, however, that languages do not have to consistently display only one type of APC, as suggested by the exceptional case of type II APCs with numerals in European Portuguese. In light of this, the languages mentioned in (96) are included only for orientation.

The connection between unagreement and strong Person as suggested by Longobardi may be on the right track insofar as it may be the case that only strong

Person languages show unagreement. However, if unagreement can only be found among consistent NSLs, then the correlation between strong Person and unagreement might just be a side-effect of another correlation, namely between strong Person and pro-drop to the effect that most or all strong Person languages have referential null subjects (Longobardi 2008, 205).

Further research may give rise to extensions of the typology in (95) in terms of variable height of person features within the extended nominal projection and should lead to a better understanding of the nature of (95) and its relation to Longobardi's theory. Whether they turn out to be independent points of variation that interact with each other to derive the variability of unagreement phenomena and APCs, or whether they are in fact part of the same point of variation, the results of this branch of research may lead to a better understanding of the role of person (and other φ-)features in natural language.

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