Defective Intervention effects in two Greek varieties and their implications for φ-incorporation as Agree

1. Introduction

In his seminal paper on Null Subject Parameters, Holmberg (2010) argues that pro-drop configurations in consistent and partial Null Subject Languages always involve incorporation of a φP to T.[1] This type of incorporation, however, is claimed not to be movement. Adopting the theory of Roberts (2010a), Holmberg proposes that incorporation of a φP in T is the direct effect of Agree (Chomsky 2001) and works as follows. Finite T has a set of unvalued φ-features and probes for a category with matching valued features (step 1 in (1)). The defective subject pronoun in vP has the required valued φ-features which are copied by T and thus value T's uφ-features. At the same time, T values the subject's unvalued case feature (step 2 in (1)). As a result, T shares all of φ's feature values. The result is the same as if φ had moved, by head movement, incorporating into T, but without actual movement taking place. According to Holmberg, the advantage of head-move as Agree is that it avoids the problem posed by head movement, namely the lack of c-command between the links of a head chain (but see Lechner 2006, 2007). Following Roberts (2010a), Holmberg (2010) furthermore proposes that the probe and the goal form a chain, which is subject to chain reduction falling under the rules in (2). The subject φP is therefore not pronounced (by 2a; indicated under step 3 in (1)), and the chain is pronounced in the form of an affix on the finite verb or auxiliary, following incorporation of V+v into T.

(1)
1. [T, D, uφ, NOM] [$_{vP}$ [3SG, uCase] v….] →
2. [T, D, 3SG, NOM] [$_{vP}$ [3SG, NOM] v…] →
3. [T, D, 3SG, NOM] [$_{vP}$ ~~[3SG, NOM]~~ v..]

(2) a. Pronounce the highest chain copy.
b. Pronounce only one chain copy.

In this paper, I present an argument based on intervention effects that φ-incorporation in the sense of Holmberg (2010) and Roberts (2010a) cannot be reduced to downward Agree. Specifically, I discuss monoclausal configurations displaying agreement between the verb and a subject DP in Icelandic and Dutch and show that when agreement is the result of downward

[1] Holmberg argues that the two language types differ in whether T contains a D feature or not. In consistent Null Subject Languages, T contains D and therefore null subjects can be definite. In partial Null Subject Languages, on the other hand, T lacks D and therefore null subjects are either arbitrary/indefinite or expletive but never definite.

Agree, an intervener does not block Agree between T/v and the subject. By contrast, constructions in which the subject moves to spec,TP are subject to intervention effects in both languages. I then discuss comparable intervention effects in two varieties of Greek, Standard and Northern Greek, which are both consistent Null Subject Languages. Crucially, intervention effects arise always, regardless of whether the subject is overt or covert, and regardless of the preverbal vs. postverbal position of the subject when this is overt. In view of the Agree vs. Move asymmetry regarding monoclausal intervention in non-Null Subject Languages, the presence of intervention effects in Null Subject Languages leads to the conclusion that what Holmberg and Roberts call 'φ-incorporation' involves actual movement.[2]

2. No intervention on local Agree, intervention on local Move: Icelandic and Dutch

As is widely discussed in recent years (Holmberg & Hróarsdóttir 2003 and many others), 'defective intervention effects' (Chomsky 2000) on downward Agree arise in biclausal constructions. In Icelandic, a matrix raising predicate cannot enter Agree with an embedded nominative argument in number across an intervening dative experiencer subject, as in (3a), while agreement is possible if the intervener moves to the higher clause, as in (3b) (Watanabe 1993, Schütze 1997):

(3)	a.	*Mér ?*virðast/virðist*	*[Jóni vera*	*taldir*	*t*	*líka*
		Me.DAT seemed.PL/SG	Jon.DAT be	believed.PL	t	like
		hestarnir]				
		horses.NOM				

[2] An anonymous reviewer strongly objects to the idea of abandoning Holmberg's non-move incorporation and suggests that the asymmetry discussed in the paper is not necessarily an argument against it. I am quoting from the reviewer: "*The paper relies crucially on this derivational analysis (or 'hierarchical-structural') of IE (intervention effect). It does not attempt to explore (not even refer) to potential alternatives, which could ultimately 'save' Holmberg's Agree analysis. Suppose that IE are not so construed, being rather 'informational' (prosodic), read off linear strings (and probably subject to variable interpretive judgments). Then the constraints on their presence (or absence) do not depend on Agree/Move choices, but crucially on the information structure of the intervener (see e.g. Tomioka (2007), or Eliam (2009), among others). This potential analysis of IE is compatible with the general absence of IE in Amharic, and extendable to alternative questions in which an intervener preceding a disjunctive phrase removes the alternative question reading, leaving the yes/no reading. Other 'semantic' accounts of IE have been brought up by Beck (2006) and others, which may or may not be adequate. The point is not whether or not the Move account of the IE asymmetry is or is not correct; the paper does not show that it is unavoidable, and it does not attempt to look at alternatives that preserve Agree incorporation as generally relevant for both IE and no-IE contexts*". The reviewer is certainly correct that the argument made in the paper crucially relies on a derivational analysis of strong and weak intervention effects (IEs), and might also turn out to be correct that an informational account of IEs could rescue Holmberg's non-move incorporation. However, semantic/pragmatic accounts of IEs along the lines of Beck (2006), Tomioka (2007) and Eliam (2009) have been discussed in the context of wh-movement, and it is not obvious whether and how they can be extended to capture intervention effects in Move and Agree in passives, unaccusatives, raising and expletive-associate constructions of the type discussed here. In the absence of such an account for A movement, I do not see why one should not construct an argument based on the standard view of IEs. Exploring alternatives in order to preserve Agree Incorporation is the aim of a different paper. Note that, as mentioned in the main text, the main advantage of Agree incorporation according to Holmberg is that it avoids head movement. Following Lechner (2006, 2007, 2009), Baker (2009) and others I do not share the view that head movement should be dispensed with.

'I perceive John to be believed to like horses'

b. *Jóni virðast/?*virðist [t vera taldir t líka Hestarnir]*
Jon.DAT seemed.PL/SG t be believed.PL t like horses.NOM
'John seems to be believed to like horses'

But in monoclausal constructions things are different, as Bobaljik (2008) stresses. In Icelandic monoclausal configurations featuring an expletive or a PP in the preverbal position, number agreement between the inflected verb and a lower nominative argument across an intervening dative is always possible, and generally obligatory, as shown by the data in (4) (from Jónsson 1996 and Zaenen, Maling and Thráinsson 1985; Bobaljik 2008: 298, 321):

(4) a. *Það líkuðu einhverjum þessir sokkar*
EXPL liked.PL someone.DAT these socks.NOM
'Someone liked these socks.'

b. *Um veturinn voru konunginum gefnar ambáttir*
In the winter were.PL the king.DAT given slaves.NOM
'In the winter the king was given (female) slaves.'

c. *Það voru konungi gefnar ambáttir í vettur*
EXPL were.PL king.DAT given slaves.NOM in winter
'There was a king given maidservants this winter.'

d. *Það voru einhverjum gefnir þessir sokkar*
EXPL were.PL someone.DAT given these socks.NOM
'Someone was given these socks.'

Bobaljik concludes that defective intervention on downward Agree does not arise in monoclausal configurations. He furthermore proposes the contrast between biclausal and monoclausal constructions as an argument for a domain-based characterization of intervention effects according to which, the position of the dative is indicative of the presence of a domain boundary in (3a) but not in (3b); cf. Nomura (2005).

The conclusion that downward Agree in monoclausal constructions is not subject to defective intervention is reinforced by evidence from Dutch discussed in Anagnostopoulou (2003). Dutch passives and unaccusatives with an *in situ* nominative subject following a dative DP are grammatical, as shown in (5) (den Dikken 1995: 208, fn 26). Notice that both the dative and the nominative argument are vP internal, since they follow the adverb *waarschijnlijk* which is taken to mark the left edge of the vP:

(5) a. *dat waarschijnlijk [$_{vP}$ Marie het boek*
that probably Mary.DAT the book.NOM
gegeven] wordt
given is

b. *dat waarschijnlijk [$_{vP}$ Marie het boek*
that probably Mary.DAT the book.NOM
bevallen] zal
please will

c. *dat waarschijnlijk [$_{vP}$ de jongen de teugels*
that probably the boys.DAT the reins.NOM
ontglipten]
slipped

The facts in (5) provide evidence that T, which I take to be situated to the right of the vP where the auxiliaries reside in (5a) and (5b), can enter downward Agree with an *in situ* nominative across a higher dative, i.e. the dative does not cause an intervention effect for Agree between T and the nominative argument vP-internally.

Crucially, an intervention effect does arise when the nominative argument undergoes overt NP-movement to spec,TP across the vP internal dative. Consider the following contrast observed by den Dikken (1995: 207-208):

(6) a. ?* *dat [$_{TP}$ het boek waarschijnlijk [$_{vP}$ Marie ~~het boek~~*
that the book.NOM probably Mary.DAT
gegeven] wordt]
given is
b. *dat [$_{TP}$ het boek Marie waarschijnlijk*
that the book.NOM Mary.DAT probably
[$_{vP}$ ~~Marie~~ ~~het boek~~ gegeven] wordt]
given is
'that the book is probably given to Mary'

In (6), movement of the nominative theme leads to a relatively mild deviance if the DP goal occurs to the right of the adverb *waarschijnlijk*, as in (6a), and results in a fully well-formed output when it occurs to its left, as in (6b). If argument placement to the left of VP-external adverbs signifies scrambling, then these facts suggest that passivization across an intervening DP goal is subject to an intervention effect in Dutch, unless the goal undergoes scrambling. Anagnostopoulou (2003) argues that DP scrambling of the intervener, just like cliticization of genitive IO interveners in Greek (see section 4 below for cliticization), is a strategy to obviate intervention effects. The same contrast is found in (non-alternating) unaccusatives, as shown in (7) and (8):

(7) a. ?* *dat het boek waarschijnlijk Marie*
that the book.NOM probably Mary.DAT
bevallen zal
please will
b. *dat het boek Marie waarschijnlijk*
that the book.NOM Mary.DAT probably
bevallen zal
please will
'that the book will probably appeal to Mary'

(8) a. ?? *dat de teugels waarschijnlijk de jongen*
that the reins.NOM probably the boys.DAT
ontglipten
slipped

b. *dat de teugels de jongen waarschijnlijk*
that the reins.NOM the boys.DAT probably
ontglipten
slipped
'that the reins probably slipped out of the boys' hands'

While it blocks Move, the vP internal dative does not block Agree between the nominative and T, as was shown in (5). In order to account for this difference between Move and Agree with respect to intervention, Anagnostopoulou (2003: 222) proposed that the features turning Dutch datives into interveners are their D/EPP-features, and not their Case/φ-features. Icelandic shows that the Agree-Move asymmetry with respect to intervention is more general. As is well-known and widely discussed in the literature, in the counterparts of (4) lacking an expletive or a PP in the preverbal position, it is the higher quirky dative and not the lower nominative DP that is allowed to move to Spec,TP. I conclude that defective interveners block Move and not Agree because their D features make them interveners, and D features are relevant for Move/EPP processes, not for Agree/φ-feature valuation processes.

3. Pro-drop and case distribution in two varieties of Greek

As is well known, Greek is a language showing all the properties associated with consistent Null Subject Languages. It has definite subject omission (9), lack of expletives with impersonal and weather verbs (10), absence of that-trace effects (11), availability of VS, VSO and VOS orders (12):

(9) *graf-o, graf-is, graf-i, graf-ume, graf-ete, graf--un*
write.1SG, write.2SG, write.3SG, write.1PL, write.2PL, write.3PL
'I write, you write, he/she/it writes, we write, you write, they write'

(10) *Fenet-e oti tha vreks-i*
Seem.3SG that FUT rain.3SG
'It seems that it will rain'

(11) *Pjos ipes oti ~~pjos~~ efige*?
Who said.2SG that ~~who~~ left
'*Who did you say that left?'

(12) a. *Efige o Janis*
left.3SG the Janis.NOM
'John left'
b. *Egraps-e o Janis to vivlio*
wrote.3SG the Janis.NOM the book.ACC
c. *Egrapse to vivlio o Janis*
wrote.3SG the book.ACC the Janis.NOM
'John wrote the book'

In addition, Greek lacks the null indefinite/ arbitrary subject typically found in partial Null Subject Languages (Holmberg 2010). It has (i) null exclusive 3rd person plural indefinite subjects (Belletti & Rizzi 1988, Pesetsky 1995, Condoravdi 1989), (ii) null inclusive 2nd

person singular subjects with arbitrary reference or (iii) overt expressions with arbitrary reference corresponding to English 'one':

(13) a. *Su tilefonisan. Prepi na itan o Janis.*
Cl.2GEN called.3PL Must SUBJ was.3SG the Janis.NOM
'Someone called you. It must have been John'

b. *Dulevis sklira stin Ellada ke xoris na plironese*
Work.2SG hard in-the Greece and without subj pay.NACT.2SG
'One works hard in Greek and without getting paid'

c. *Dulevi kanis sklira stin Ellada ke xoris na plironete*
Work.3SG one hard in-the Greece and without subj pay.NACT.3SG
'One works hard in Greek and without getting paid'

Greek has morphological nominative (NOM), accusative (ACC) and genitive (GEN) case. Nominative occurs on subjects, accusative on direct objects (DOs) and most prepositional complements and genitive is the case assigned DP internally. Moreover, Ancient Greek datives (DATs) were lost in Medieval Greek and have been replaced in ditransitives and two-place unaccusatives by either GENs or ACCs, depending on the dialect (see Anagnostopoulou & Sevdali 2015 for discussion and references). Standard Modern Greek and many southern dialects have GEN-ACC/NOM constructions, while Northern Greek dialects have ACC-ACC/NOM constructions (Dimitriadis 1999 and references cited there). The IO is not allowed to alternate with NOM in passives, regardless of whether it bears GEN (in Standard Greek) or ACC (in Northern Greek) in actives:

(14) a. *Edosa tu Petru ena pagoto*
Gave.1SG the Peter.GEN an icecream.ACC
'I gave Peter an ice-cream'

b. **O Petros dothike ena pagoto*
The Peter.NOM gave.NACT an ice-cream.ACC
'Peter was given an ice-cream'

(15) a. *Edosa ton Petro ena pagoto*
Gave.1SG the Peter.ACC an ice-cream.ACC
'I gave Peter an ice-cream'

b. **O Petros dothikeena pagoto*
The Peter.NOM gave.NACT an ice-cream.ACC
'Peter was given an ice-cream'

In both varieties, only the DO bearing accusative is allowed to alternate with NOM. Finally, both varieties qualify as consistent Null Subject Languages.

4. Weak and strong defective intervention in Standard and Northern Greek

Both Standard and Northern Greek have defective intervention effects in monoclausal passive and unaccusative constructions displaying NP-movement of the DO across the IO. However, the two types of intervention have very different properties. Here I will only discuss passivized ditransitives in the two dialects.[3]

Standard Greek has a defective intervention effect caused by the GEN IO when the NOM DO undergoes NP-movement across it, as in (16a) (Anagnostopoulou 2003). The effect is weak, i.e. the resulting sentence is deviant and not strongly unagrammatical, as is the case with Dutch (6a), and can be rescued if the intervener surfaces as a clitic or is clitic doubled, as in (16b), similarly to the Dutch scrambling strategy we saw in (6b):

(16) a. ?**To pagoto* *dothike* *tu Petru* *apo tin Maria*
The ice-cream.NOM gave.NACT the Peter.GEN by the Mary
'The ice-cream was given Peter by Mary'

b. *To pagoto* *tu* *dothike(tu Petru)* *apo tin Maria*
The ice-cream.NOM cl.GEN gave.NACT the Peter.GEN by the Mary
'The ice-cream was given Peter by Mary'

I will call this 'a weak defective intervention effect'. Experimental evidence in Georgala (2012) supports the view that, even though the deviance of (16a) is mild, an intervention effect is indeed present and is obviated in (16b). Specifically, Georgala applies the magnitude estimation experimental method (Bard Robertson & Sorace 1996; Cowart 1997; Keller 2000) to such sentences and finds out that sentences like (16a) are consistently and systematically scored much lower than their counterparts in (16b) by native speakers of Standard Greek.

Northern Greek also has a defective intervention effect caused by accusative IOs in passives. The NOM theme is not allowed to move to the subject position across an intervening ACC goal, i.e. the following is ungrammatical:

(17) **To pagoto* *dothike* *ton Petro*
The ice-cream.NOM gave.NACT the Peter.ACC
'The ice-cream was given Peter'

My consultants (mentioned in footnote 3) are unanimous in judging (17) as strongly ungrammatical, and the sentence cannot be rescued by cliticization or doubling. The following is equally ungrammatical:

(18) **To pagoto* *ton* *dothike* *(ton Petro)*
The ice-cream.NOM cl.ACC gave.NACT the Peter.ACC
'The ice-cream was given him'

I will call this 'a strong defective intervention effect'.

What seems to be crucial for the emergence of weak vs. strong defective intervention in Greek is the morphological case of the IO. In both Standard and Northern Greek the lower theme cannot undergo movement to spec,TP across a higher goal, but the effect is much

[3] I thank Sabine Iatridou, Despina Oikonomou and Giorgos Spathas for their judgments on Northern Greek. I thank Mark Baker and Ruth Kramer for a discussion that led me to discover the Northern Greek intervention pattern.

stronger when the intervener is an ACC argument, as schematized in (19b), than when it is a GEN argument, as in (19a):

(19) a. [$_{TP}$ NOM T [$_{vP}$ [$_{ApplP}$ GEN ~~NOM~~]]] GEN=weak intervener
b. [$_{TP}$ NOM T [$_{vP}$ [$_{ApplP}$ ACC ~~NOM~~]]] ACC=strong intervener

It is unclear at this point why exactly morphological case matters, since neither the GEN IO nor the ACC IO alternate with NOM in passives, as was seen in (14) and (15), i.e. both are *defective* interveners in the sense of Chomsky (2000).

Moreover, we saw that GEN intervention is obviated by cliticization/clitic doubling of the intervener. The by now standard account for this fact (see e.g. Anagnostopoulou 2003, Preminger 2009 and others) is that the features blocking NP-movement of NOM to T in (19a) no longer intervene between NOM and T when cliticization takes place, because cliticization is movement targeting T, the same position targeted by NP movement, and neither the trace of clitics in (20a) nor their DP doubling associate in (20b) count anymore as interveners.

(20) a. [$_{TP}$ NOM cl-T [$_{vP}$ [$_{ApplP}$ ~~GEN~~ ~~NOM~~]]]
b. [$_{TP}$ NOM cl-T [$_{vP}$ [$_{ApplP}$ GEN ~~NOM~~]]]

The question is why the same strategy cannot be employed in configurations of strong intervention, as in Northern Greek (19b). Speakers agree that the sentences substantially improve if the ACC intervener is a 1st or 2nd person clitic, as in (21), a fact suggesting that there is a problem caused by a 3rd person ACC clitic in sentences like (18) (reminiscent of the conditions triggering the spurious *se* rule in Spanish, Bonet 1991).

(21) ?*To pagoto* *me/se* *dothike*
The ice-cream.NOM cl.ACC.1SG/2SG gave.NACT
'The ice-cream was given me/you'

When the intervener is 3rd person, speakers resort to a GEN strategy in order to rescue sentences like (17) and (18). Standard Greek (16a) and (16b) are acceptable for Northern Greek speakers, and GEN IOs are judged not to be interveners, regardless of whether they are full DPs (though I am skeptical about this; see footnotes 4 and 6 below), clitics or clitic doubled DPs.[4] Importantly, a very similar pattern of intervention is found with objects in Northern Greek, unlike Standard Greek. In a nutshell, ACC DO 3rd person clitics cannot co-occur with ACC IO DPs (22a), two 3rd person clitics are not allowed to form ACC-ACC clusters (22b) and speakers have to resort to Standard Greek GEN-ACC clusters (22c) instead, while 1st and 2nd person ACC IOs can form clusters with 3rd person ACC DOs (22d):

(22) a. **To edosa ton Petro (to pagoto)*
Cl.ACC gave.ACT.1SG the Peter.ACC the icecream.ACC

[4] There is more to be said here. It could be that my consultants, which are also speakers of Standard Greek, resort to their Standard Greek grammar and, at the same time, they belong to those speakers of Standard Greek that do not have weak defective intervention at all. Alternatively, the contrast between the sharply ungrammatical Northern Greek and the mildly ungrammatical Standard Greek version of the sentence is so strong that they judge the NOM-GEN construction as grammatical, while the magnitude estimation experimental method might show that there is still a contrast between a GEN DP and a GEN clitic.

'I gave Peter the ice-cream'

b. **Ton to edosa (ton Petro) (to pagoto)*
Cl.ACC Cl.ACC gave.ACT.1SG the Peter.ACC the icecream.ACC
'I gave Peter the ice-cream'

c. *Tu to edosa (tu Petru) (to pagoto)*
Cl.GEN Cl.ACC gave.ACT.1SG the Peter.GEN the icecream.ACC
'I gave Peter the ice-cream'

d. *Me/se to edose (to pagoto)*
Cl.1/2.ACC Cl.3.ACC gave.ACT.3SG the icecream.ACC
'He/she gave me/you the ice-cream'

These facts suggest that there is a problem when two 3rd person arguments bearing ACC and/or NOM enter Agree with the same head, whether this is T or v, in Northern Greek. Here I will not attempt to provide a solution to these puzzles. What matters for present purposes is the very existence of weak and strong defective intervention in Standard and Northern Greek, respectively.

5. Defective intervention under pro-drop and its implications

Neither weak defective intervention nor strong defective intervention in passives cease to occur under pro-drop of the NOM argument. Consider first the Standard Greek pattern:

(23) *Context:* *Apo pjon dothiketo vivlio ston Petro*?
By whom gave.3NACT the book.NOM to-the Peter
'By whom was the book given to Peter?'

a. ??*Dothike tu Petru apo ton kathigiti*
Gave.NACT.3SG the Peter.GEN by the professor

b. *Tu dothike apo ton kathigiti*
Cl.GEN gave.NACT.3SG by the professor

c. *Tu dothike tu Petru apo ton kathigiti*
Cl.GEN gave.NACT.3SG the Peter.GEN by the professor
'It was given to Peter by the professor'

(24) *Context:* *Apo pjon apagoreftike i isodos ston Petro*?
By whom forbid.3NACT the entrance.NOM to-the Peter
'By whom was Peter forbidden the entrance?'

a. ?**Apagoreftike tu Petru apo tin astinomia*
Forbid.NACT.3SG the Peter.GEN by the police

b. *Tu apagoreftike apo tin astinomia*
Cl.GEN forbid.NACT.3SG by the police

c. *Tu apagoreftike tu Petru apo tin astinomia*
Cl.GEN forbid.NACT.3SG the Peter.GEN by the police
'Peter was forbidden the entrance by the police'

As shown in (23) and (24), weak intervention effect is caused by undoubled GEN DPs when the subject is null, just as with overt NOM subjects.

The same is shown in Northern Greek with strong intervention. The sharp ungrammaticality of an overt ACC IO DP or clitic, persists when the subject is covert, as shown in (25) and (26):[5]

(25) a. *Question.* *Pu ine to vivlio mu*?
Where is the book.NOM my.GEN
'Where is my book'?
b. *Answer.* **Dothike ton Petro*
Gave.NACT.3SG the Peter.ACC
'It was given to Peter'

(26) a. *Question.* *Dosane to vivlio ston Petro*?
Gave. NACT.3PL the book.ACC to-the Peter
'Did they give the book to Peter'?
b. *Answer.* **Ne, ton dothike xtes*
Yes, cl.ACC gave.NACT.3SG yesterday
'Yes, it was given to him yesterday'

And just as with overt NOM subjects, the relevant null subject constructions improve when the IO surfaces as a GEN DP[6] or clitic:

(27) a. *Question.* *Pu ine to vivlio mu*?
Where is the book.NOM my.GEN
'Where is my book'?
b. *Answer.* *Dothike tu Petru*
Gave.NACT.3SG the Peter.GEN
'It was given to Peter'

(28) a. *Question.* *Dosane to vivlio ston Petro*?
Gave. NACT.3PL the book.ACC to-the Peter
'Did they give the book to Peter'?
b. *Answer.* *Ne, tu dothike xtes*
Yes, cl.GEN gave.NACT.3SG yesterday
'Yes, it was given to him yesterday'

Recall that it was concluded in section 2 on the basis of evidence from Icelandic and Dutch that defective interveners block Move and not Agree because their D features make them interveners, and D features are relevant for Move/EPP processes, not for Agree/φ-feature valuation processes. If this conclusion is correct, then the presence of weak intervention in

[5] I thank Despina Oikonomou (personal communication) for also providing contexts for all Northern Greek sentences below.

[6] Note that the question context provided for an undoubled GEN DP in (27b) requires emphasis on the GEN DP since it is construed as an answer to a wh-question. In this context, I would also use an undoubled genitive DP, since doubling is incompatible with focus/emphasis. I assume that the undoubled GEN undergoes covert focus movement in (27b), which is another strategy for obviating weak defective intervention. It is therefore more appropriate to check the status of sentences with an undoubled GEN DP in contexts without emphasis, like the ones in (23) and (24) above. And indeed, Despina Oikonomou (personal communication) confirms that she has a weak intervention effect with an undoubled GEN in contexts like (23) and (24) and a very strong intervention effect with an ACC IO in the same contexts, regardless of whether the ACC is a DP, a clitic or a clitic doubled DP and regardless of emphasis.

Standard Greek and strong intervention in Northern Greek under pro-drop indicates that Null Subject constructions involve not just downward Agree between T and the null subject but movement of the zero subject to T. In turn, this casts doubt on Holmberg's (2010) and Roberts's (2010) proposal that φ-incorporation of null subjects is formally indistinguishable from long distance Agree configurations. On Holmberg's account outlined in the introduction, the only difference between the Agree derivation in (29) for null nominatives in Greek and the Agree Derivation in (30) for overt nominatives in Icelandic (4) and Dutch (5) is that the probe and the goal do not form a chain and hence are not subject to chain reduction. And yet, GEN and ACC IOs are interveners in (29) while DAT IOs are not interveners in (30):

(29)

1. [T, D, uφ, NOM] [$_{vP}$ v [$_{ApplP}$?*GEN / * ACC Appl [3SG, uCase] ….] →
2. [T, D, 3SG, NOM] [$_{vP}$ v [$_{ApplP}$?* GEN /* ACC Appl [3SG, NOM] …] →
3. [T, D, 3SG, NOM] [$_{vP}$ v [$_{ApplP}$?* GEN /* ACC Appl ~~[3SG, NOM]~~ v..]

(30)

1. [T, D, uφ, NOM] [$_{vP}$ v [$_{ApplP}$ DAT Appl [$_{DP}$ D [3SG, uCase] [$_{NP}$ N..]] →
2. [T, D, 3SG, NOM] [$_{vP}$ v [$_{ApplP}$ DAT Appl [$_{DP}$ D [3SG, NOM] [$_{NP}$ N..]] →
3. [T, D, 3SG, NOM] [$_{vP}$ v [$_{ApplP}$ DAT Appl [$_{DP}$ D [3SG, NOM] [$_{NP}$ N..]]

I therefore propose that the two derivations are not identical. In pro-drop configurations, there is movement of the subject from vP to TP, while monoclausal agreement in Icelandic and Dutch with a vP internal NOM involves downward Agree between T and NOM. [7]

What kind of movement is involved in pro-drop sentences? Perhaps the simplest analysis would be to follow Holmberg (2010) and, more generally, those who assume that pro is syntactically present but not realized at PF (Rizzi 1986, Cardinaletti & Starke 1999, Roberts 2010b and others) and to analyze pro/φ-incorporation as actual movement of pro/φ to T. Under the assumption that intervention effects of the type described above are triggered by intervening D-features, it must also be assumed that pro in consistent Null Subject Languages contains a D-layer and not just φ-features. Building on Tomioka (2003), Barbosa (2013) argues that this is correct. The different properties of consistent vs. partial Null Subject Languages w.r.t. the definiteness of pro discussed in Holmberg (2010) as well as the properties of empty arguments in radical topic drop-languages (e.g. Japanese) systematically correlate with differences in the internal make-up of DPs and the availability of overt vs. covert definite object pronouns under ellipsis in the languages in question. This correlation can be explained if overt and covert arguments in consistent Null Subject Languages have a D layer missing from overt and covert arguments in partial and radical pro-drop languages.

[7] Mark Baker (personal communication) suggests that one could appeal to the fact that agreement with a nominative argument over a dative inside the same clause is weakened, at least in Icelandic, so that there is agreement in number but not in person (Taraldsen 1995, Sigurðsson 1996 and many others) in order to explain why pro-drop languages always show defective intervention within Holmberg's Agree approach. Specifically, Mark Baker suggests that person agreement is blocked in this configuration, and if there is not a person feature on T, then T and the subject do not share all their features, so that it doesn't count anymore as a movement chain, and the lower instance does not delete. In such an approach, it is the weakening of agreement that prevents pro-drop from occurring in the relevant sentences and not locality of movement *per se.* In order for this account to work, one would have to say that person plays a role in pro-drop even of third person nominals, despite the fact that they do not have marked person features. Even though an approach along these lines is appealing, I do not think that it will work for pro-drop languages which crucially differ from Icelandic in never showing a person restriction on nominatives in configurations of downward Agree. The constructions showing such an effect in languages like Greek are clitic constructions, and the weakening effect only arises with accusative clitics (the well-known PCC effect), not with nominatives.

An alternative I would like to explore, though, is to adopt Alexiadou & Anagnostopoulou' proposal (A&A 1998) that this movement has the form of [v-V]-to-T raising, thus linking the movement nature of pro-drop configurations to verb-movement as a way of satisfying the EPP. Working in the lexicalist framework of Chomsky (1995), A&A proposed that verbal agreement morphology in consistent Null Subject Languages is pronominal, i.e. it bears D features. As a result, the EPP in these languages is always satisfied via V-to-T raising. For this reason, overt preverbal subjects are Clitic Left Dislocated and never the result of A-movement to Spec,TP. On this view, the NP-movement configurations discussed in section 4 for Greek do not involve NP-movement of the DP but NP-movement of the zero resumptive subject pro corresponding to overt object clitics in object CLLD constructions. This analysis has sometimes been criticized (see e.g. Spyropoulos & Revithiadou 2009 for Greek), but Barbosa (2009) offers many interesting novel arguments from European vs. Brazilian Portuguese in favor of the CLLD analysis of preverbal subjects in consistent Null Subject Languages. One such argument that carries over to Greek comes from the observation that preverbal subjects in consistent Null Subject Languages are ungrammatical in contexts where CLLD is excluded for independent reasons, while they are grammatical in non-pro drop languages. Absolute constructions are the case in point. The subject must precede the Aux-V complex in these environments in English and French (from Barbosa 2009, ex. (80) and (81), while it follows Aux or the Aux-V complex in Spanish, Italian and European Portuguese (Barbosa's (82)-(84)):

(31) *English: S-Aux/V*
Your brother having called, we left.

(32) *French: S-Aux/V*
Ton frère ayant téléphoné, je suis parti.

(33) *Spanish: V-S*
*Habiendo (el juez) resuelto (el juez**)** absolver al acusado el juicio concluyó*
having (the judge) decided (the judge) to acquit the accused the trial concluded
sin incidentes
without incidents
'The judge having decided to acquit the accused, the trial came to an end without further incidents.'

(34) *Italian: Aux/V-S*
*Avendo (tuo fratello**)** telefonato (tuo fratello**)** (, io sono rimasto a casa).*
having your brother called I am stayed at home
'Your brother having called, I stayed at home.'

(35) *European Portuguese: V - S*
Aparecendo a Maria, vamos embora
Showing up the Maria, we-leave.
'As soon as Maria shows up, we leave.'

The same holds in Greek, where the preverbal subject is strongly deviant, as shown in (36b):

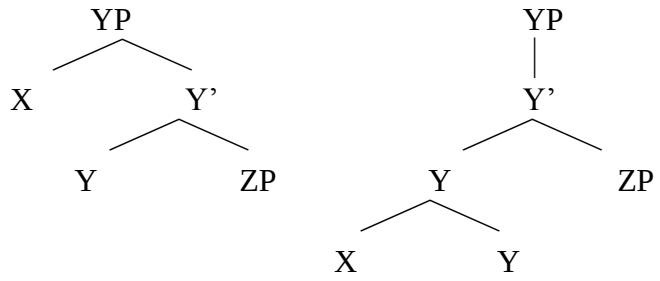
(36) *Greek V-S*
a. Emfanizomeni I Maria, tha figume
Showing up the Mary, FUT go.1PL

'As soon as Maria shows up, we will leave'

b. ?*I Maria emfanizomeni, tha figume
The Mary showing up, FUT go.1PL
'As soon as Maria shows up, we will leave'

Updating Alexiadou & Anagnostopoulou (1998) in a non-lexicalist model of grammar, we can propose that in consistent Null Subject Languages the null subject undergoes merger with the verbal complex and is spelled out in the form of a [+ pronominal] affix on the main verb or auxiliary.[8] Subsequent raising of the v+V+[pron] affix to T satisfies the EPP property of T in the manner suggested by Alexiadou & Anagnostopoulou (1998). I propose that the mode by which the zero subject combines with the verb is identical to the process by which object clitics combine with the finite verb in cliticization structures, essentially treating null subjects as clitics (see Sportiche 1996, Alexiadou & Anagnostopoulou 1998, 2001 and others). Following Nevins (2011) I assume that clitics undergo syntactic rebracketing, the Merger operation of Matushanksy (2006) which rebrackets two heads that are in a specifier head configuration as a complex head:

(37) Rebracketing Merger:



Subject pro is a D head bearing φ-features, just like a clitic, and undergoes rebracketing merger from its base position in spec,VoiceP (see footnote 9) in transitives and unergatives with the complex Root-v-Voice head created by head movement of the Root to v and Voice:[9]

[8] Following Alexiadou, Anagnostopoulou & Schäfer (2006, 2015) I assume that the verbal complex consists of the root, a verbalizing head introducing an event and Voice introducing an external argument. There is evidence that the external argument is introduced below the auxiliary head in the Greek perfect, because the participle is either active or passive, i.e. it contains Voice:

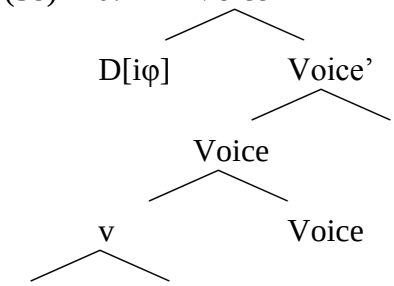
(i) a. O Janis exi lisi tis askisis
The Janis.NOM has.3SG solved.ACT the exercises.ACC
'John has solved the exercises'

b. I askisis exoun lithi apo ton Jani
The excercises.NOM have.3PL solved.NACT by the John
'The exercises have been solved by John'

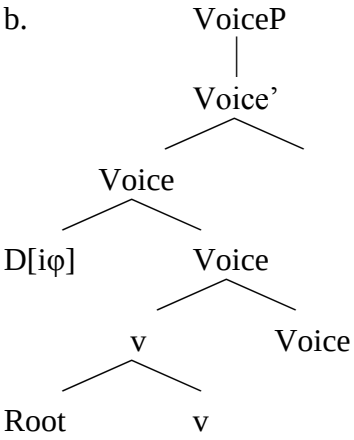
Since the auxiliary shows subject agreement, we must assume that in these constructions the null subject raises to Aux and then merges with it. The reason why the subject must merge with the auxiliary and is not allowed to merge with the participle has to do with the fact that the auxiliary and not the participle is allowed to satisfy the EPP property of T since it is closer to T than the participle.

[9] In passives and unaccusatives the base position of pro is the position occupied by themes, which is probably outside the projection of the stative Root, i.e. in spec,vP, in alternating change of state unaccusatives, and a Root-complement in non-alternating unaccusatives, verbs of creation and destruction. This raises non-trivial questions concerning the point at which D[iφ] undergoes Merger with the verbal complex and whether an IO, if present, is expected to cause an intervention effect or not on Merger, if Merger happens after the verbal complex is formed (which would seem to entail that D[iφ] first moves to the edge of the position hosting the verbal

(38) a.



b.



If we take suffixal agreement morphology to spell out D[iφ], then D[iφ] in (38b) is right linearized with respect to the verbal complex, while object clitics are left linearized with respect to the verbal complex. Further verb movement to T brings along the rebracketed subject which satisfies the EPP requirement of T.

6. Defective intervention and NOM in situ in Greek

As a final point, I will briefly discuss intervention effects in sentences where the DP argument bearing nominative Case remains *in situ* in Greek, and their implications. As already observed in Anagnostopoulou (2003: 85), Standard Greek differs from Dutch (and Icelandic) in having weak intervention effects in apparent downward Agrre configurations in monoclausal constructions. Examples with *in situ* subjects still require clitic doubling or cliticization in Greek passives and unaccusatives:

(39) a. ?*(tu) dhothike tu Petru to vivlio
Cl.GEN gave.NACT.3SG the Petros.GEN the book.NOM
'The book was given to Peter'

b. ?*(tis) irthe tis Marias to grama
Cl. GEN came the Maria GEN the letter. NOM
'The letter came to Mary'

c. ?*(tu) aresun tu Petru ta vivlia
Cl.GEN please-3pl the Petros.GEN the books. NOM
'Peter likes books'

The same holds for strong intervention in Northern Greek, where a NOM theme is not allowed to co-occur with a 3rd person ACC DP or clitic or clitic doubled IO, as shown in (40):

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complex and then rebracketing happens). These questions are left open here because they require working out where themes reside in all relevant structures, whether D[iφ] and nominative arguments more generally move to the edge of v/Voice or directly to T in passives and unaccusatives and, if the former, how exactly intervention works when Voice/v is targeted. The two Greek varieties sharply differ with respect to the latter issue. In Standard Greek, GEN IOs do not block cliticization of an ACC DO across them while 3rd person ACC IOs cause a strong intervention effect on cliticization of an ACC DO.

(40) a. *Xthes dothike ton Petro to pagoto
Yesterday gave.NACT the Peter.ACC the ice-cream.NOM
b. *Xthes ton dothike to pagoto
Yesterday cl.ACC gave.NACT the ice-cream.NOM
c. *Xthes ton dothike ton Petro to pagoto
Yesterday cl.ACC gave.NACT the Peter.ACC the ice-cream.NOM
'The ice-cream was given to Peter yesterday'

In order to account for this difference between Greek and Dutch/Icelandic, in Anagnostopoulou (2003) I appealed to the consistent pro-drop and clitic doubling[10] nature of Greek, as opposed to Dutch and Icelandic, and I proposed that the relation between subject agreement on V and the overt DP subject in Greek is an instance of clitic doubling.[11] It is generally agreed upon that clitic doubling is a movement dependency, which means that some part of the nominative moves to T even when it is pronounced *in situ* (Alexiadou and Anagnostopoulou 2001: 224-226). Since movement is sensitive to intervention effects, the pattern in (39) follows. There are several ways to represent this clitic doubling / movement dependency (see Anagnostopoulou, to appear, for summarizing the relevant literature on clitic doubling and different proposals). Which one to choose depends on how we want to analyze null subject constructions to begin with.[12] For example, if we basically follow Holmberg's

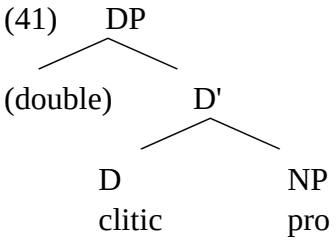
[10] Note that not all Null Subject Languages are also clitic doubling languages, for example Italian and Catalan are not, at least as far as DO clitic doubling is concerned. Alaxiadou & Anagnostopoulou (2001) argue that only in clitic doubling languages verbal agreement enters a doubling configuration with a full DP. As a result, Greek, Romanian and Spanish permit VSO orders with both S and O vP-internal in violation of the *Subject-in-situ Generalization.* In Italian and Catalan clitic doubling is not possible, and therefore these languages only allow VOS orders and not VSO orders. But, crucially, in VOS orders the object has moved to the edge of the vP conforming with the *Subject in situ Generalization.* This makes the prediction that if these languages have intervention effects of the type described above for Greek, these would be obviated if the nominative remained in its vP internal position, i.e. that Italian and Catalan would behave like Dutch and Icelandic and not like Greek w.r.t. intervention effects with *in situ* nominatives. I do not know whether this prediction can be tested since in these languages 'a-datives' are not interveners to begin with (presumably because they are ambiguous between a prepositional dative and an applicative dative).

[11] Note that analyzing agreement with subjects as an instance of clitic doubling raises the question of why object doubling imposes referentiality conditions on the doubled DP while subject doubling doesn't. This is a more general question concerning doubling analyses of agreement phenomena, as argued for by e.g. Preminger (2009) and Nevins (2011). I believe that the difference between doubling/agreement without interpretational effects vs. doubling/agreement displaying such effects should be linked to the obligatoriness of the former vs. optionality of the latter. See Baker & Kramer (2015) for an alternative view that referentiality conditions constitute the only reliable diagnostic for classifying a dependency as a doubling one.

[12] An anonymous reviewer points out that it is unsatisfying not to take a firm position regarding which analysis of pro-drop I take to be correct. In view of the complexities and debates on the Null-Subject Parameter, however, (see e.g. D'Alessandro 2015 for an overview of the relevant issues), it is beyond the scope of the present paper to address the syntax and parametrization of null subject phenomena in detail. The intervention data I discuss show that movement is a crucial component in pro-drop structures; in addition, they provide evidence that covert subjects in Greek-type languages have a D-layer and move overtly. In principle, these crucial properties can be expressed both in an A&A (1998) style-analysis and in terms of a more conventional analysis, with a null D-pronominal moving to T. In my view, the A&A analysis has the advantage that it automatically derives both movement and the presence of a D layer by linking them to the EPP-driven movement of the agreeing verb. A definitive choice between the two main analytic options, however, would require an in depth investigation of the properties of different Null Subject Languages, the nature of micro- and macro-variation in different types of null subject constructions, an analysis of partial pro drop languages, an understanding of the relationship between SVO, VSO and VOS orders in different Null Subject Languages, among other issues.

(2010) analysis with the modifications introduced above (true φ-incorporation combined with the hypothesis that null subjects also contain D), then the most adequate analysis for clitic doubling would be that the clitic is a copy of a DP moving to the host, which spelled out as a pronoun (the reverse of a resumptive pronoun chain), a possibility explored by Harizanov (2014) and Kramer (2014). On this analysis, the copy of a moved subject would be the suffixal verbal agreement. On the alternative analysis outlined above for null subjects, namely that verbal subject agreement results from merger of a subject clitic with the verbal complex, the most compatible analysis of clitic doubling would either be that doubling clitics spell out D/φ-features of the DP moving to the host (Anagnostopoulou 2003) or a version of the 'big DP hypothesis' according to which clitics are determiner heads, as in (41) (Torrego 1988, Uriagereka 1995 and the literature building on them), with Ds moving to the host:

(41)



A variant of this proposal is that D is adjoined to the DP/KP (similarly to floated quantifiers) and moves to the host stranding the DP/KP (Nevins 2011). On both proposals, the subject doubling clitic would merge with the verbal complex in the way described above for non-doubling subject clitics. [13]

7. Summary

In this paper I employed intervention effects in monoclausal constructions as a way of diagnosing whether an agreement construction should be analyzed as φ-feature valuation under Agree or as the result of movement. I took as a starting point the observation that in monoclausal constructions clearly involving downward Agree, as in Icelandic and Dutch, the presence of a dative intervener does not block Agree between T and a lower nominative argument. By contrast, dative arguments in these languages do cause intervention effects blocking movement of the nominative argument to T. I then identified two types of intervention effects in two different varieties of Greek, namely weak defective intervention attested in Standard Greek and strong defective intervention found in Northern Greek. Both are consistent Null Subject Languages. I presented evidence that weak and strong intervention effects in these dialects arise always, regardless of whether the nominative subject is overt or covert and regardless of whether a subject DP remains in its base position or moves overtly. This led me to conclude that the relevant constructions always display movement. I explored some ways in which this movement can be represented. Choosing among the alternatives for

[13] There are other options not presented here for both null subject constructions and clitic doubling constructions. For example one could adopt a version of Sportiche's (1996) proposal and analyze verbal subject agreement as T's φ-features which are interpretable in pro-drop languages. They combine with a zero pro or an overt subject which moves to T covertly. The difference between subject doubling constructions and object doubling constructions would be that the presence of φ-features in T are obligatory, while φ-features on v (object doubling) are optional and associated with interpretive effects.

null subject constructions also has implications for constructions with overt *in situ* nominatives, which necessitate a doubling/movement analysis in Greek, in order for intervention effects to be accounted for.

Abstract

In this paper, I argue that pro-drop configurations cannot be analyzed as formally identical to downward Agree configurations. I take as a starting point the observation that in monoclausal constructions clearly involving downward Agree, as in Icelandic and Dutch, the presence of a dative intervener does not block Agree between T and a lower nominative argument. I then investigate two types of intervention effects in Standard and Northern Greek and argue that intervention effects in the presence of an indirect object arise always, regardless of whether the nominative subject is overt or covert and regardless of whether a subject DP remains in its base position or moves overtly. This leads me to conclude that the relevant constructions always display movement.

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References

Alexiadou, Artemis & Elena Anagnostopoulou. 1998. Parametrizing Agr: word order, verb-movement and EPP-checking. *Natural Language and Linguistic Theory* 16. 491-539.

Alexiadou, Artemis & Elena Anagnostopoulou. 2001. The Subject In-Situ Generalization, and the role of Case in driving computations. *Linguistic Inquiry* 32. 193-231.

Alexiadou, Artemis, Elena Anagnostopoulou & Florian Schäfer. 2006. The properties of anticausatives crosslinguistically. In Mara Frascarelli (ed.) *Phases of Interpretation*, 187-211. Berlin/ New York: Mouton de Gruyter.

Alexiadou, Artemis, Elena Anagnostopoulou & Florian Schäfer. 2015. *External arguments in transitivity alternations. A layering approach*. Oxford: Oxford University Press.

Anagnostopoulou, Elena. 2003. *The Syntax of Ditransitives. Evidence from Clitics*. Berlin/ New York: Mouton de Gruyter.

Anagnostopoulou, E. To appear. Clitic Doubling. Updated version of the Chapter on Clitic Doubling. In Martin Everaert & Henk van Riemsdijk (eds.). *The Blackwell Companion to Syntax*. Oxford: Blackwell Publishing.

Anagnostopoulou, Elena & Christina Sevdali. 2015. Case Alternations in Ancient Greek Passives and the Typology of Case. *Language* 91. 442-481.

Baker, Mark. 2009. Is Head Movement Still Needed for Noun Incorporation? The Case of Mapudungun. *Lingua* 119. 148-165.

Baker, Mark & Ruth Kramer. 2015. Doubling Clitics are Pronouns: Agree, Move, Reduce, and Interpret. Ms. Rutgers University & Georgetown University.

Barbosa, Pilar. 2009. Two kinds of subject pro. *Studia Linguistica* 63. 2-58.

Barbosa, Pilar. 2013. Pro as a minimal pronoun: Towards a unified approach to pro-drop. Ms. University of Minho.

Bard Ellen Gurman, Dan Robertson & Antonella Sorace. 1996. Magnitude Estimation of Linguistic Acceptability. *Language* 72. 32–68.

Beck, Sigrid. 2006. Intervention effects follow from focus interpretation. *Natural Language Semantics* 14. 1–56.

Belletti Adriana & Luigi Rizzi. 1988. Psych verbs and θ-theory. *Natural Language and Linguistic Theory* 6. 291-352.

Bobaljik, Jonathan. 2008. Where is Phi? In Daniel Harbour, David Adger and Susana Bejar (eds.) *Phi Theory. Phi-features across Modules and Interfaces*, 295-328. Oxford: Oxford University Press.

Bonet, Eulalia. 1991. Morphology after Syntax: Pronominal Clitics in Romance Languages. Cambridge MA: MIT dissertation.

Cardinaletti, Anna & Michal Starke. 1999. The typology of structural deficiency: A case study of three classes of pronouns. In Henk van Riemsdijk (ed.) *Clitics in the languages of Europe*, 145-233. Berlin/New York: Mouton de Gruyter.

Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, MA: MIT Press.

Chomsky, Noam. 2000. Minimalist inquiries: the framework. In Roger Martin, David Michaels & Juan Uriagereka (eds.) *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, 89-155. Cambridge MA: MIT Press.

Chomsky, N. 2001. Derivation by phase. In Michael Kenstowicz (ed.), *Ken Hale. A Life in Language*, 1-52. Cambridge, MA.: MIT Press.

Condoravdi, Cleo. 1989. Indefinite and generic pronouns. *Proceedings of the West Coast Conference on Formal Linguistics* 9, 71-84. CSLI Publications, Stanford University.

Cowart, Wayne. 1997. *Experimental Syntax: Applying Objective Methods to Sentence Judgements*. Thousand Oaks, Ca.: Sage.

D'Alessandro, Roberta. 2015. Null Subjects. In: Antonio Fábregas, Jaume Mateu & Mike T. Putnam M. (eds.) *Contemporary Linguistic Parameters*. London: Bloomsbury.

Den Dikken, Marcel. 1995. *Particles: On the syntax of verb-particle, triadic, and causative constructions.* Oxford: Oxford University Press.

Dimitriadis, Alexis. 1999. On Clitics, Prepositions and Case Licensing in Standard and Macedonian Greek. In: Artemis Alexiadou, Geoffrey Horrocks & Melita Stavrou (eds.), *Studies in Greek Syntax*, 95-113. Dordrecht: Kluwer Academic Publishers.

Eilam, Aviad. 2009. The Absence of Intervention Effects in Amharic: Evidence for a Non-Structural Approach. *Brill's Annual of Afroasiatic Languages and Linguistics* 1:204-254.

Georgala, Effi. 2012. Applicatives in their Structural and Thematic Function. A minimalist account of Multitransitivity. Ithaca NY: Cornell University dissertation.

Harizanov, Boris. 2014. Clitic doubling at the syntax-morphology interface. A-movement and morphological merger in Bulgarian. *Natural Language and Linguistic Theory* 32: 1033-1088.

Holmberg, Anders. 2010. Null Subject Parameters. In Theresa Biberauer, Anders Holmberg, Ian Roberts & Michelle Sheehan *Parametric Variation: Null Subjects in Minimalist Theory,* 88-125. Cambridge: Cambridge University Press.

Holmberg, Anders and Thorbjörg Hróarsdóttir 2003. Agreement and movement in Icelandic raising constructions. *Lingua* 113: 997-1019.

Jónsson, Jóhannes Gísli. 1996. Clausal architecture and case in Icelandic. Amherst MA: University of Massachusetts Amherst dissertation.

Kramer, Ruth. 2014. Clitic doubling or object agreement. The view from Amharic. *Natural Language and Linguistic Theory* 32. 593-634.

Keller, Frank. 2000. Gradience in Grammar: Experimental and Computational Aspects of Degrees of Grammaticality. University of Edinburgh dissertation.

Lechner, Winfried. 2006. An interpretive effect of Head Movement. In Mara Frascarelli (ed.) *Phases of Interpretation,* 45-69. Berlin/ New York: Mouton de Gruyter.

Lechner, Winfried. 2007. Interpretive effects of Head Movement. Lingbuzz, version 2.0, March 2007.

Lechner, Winfried. 2009. A puzzle for remnant movement analyses of V2. *Linguistic Inquiry*. 40. 346–356.

Matushansky, Ora. 2006. Head movement in linguistic theory. *Linguistic Inquiry* 37**.** 69-109.

Nomura, Masashi. 2005. Nominative Case and AGREE(ment). Storrs: University of Connecticut, dissertation.

Nevins, Andrew. 2011. Multiple agree with clitics: person complementarity vs. omnivorous number. *Natural Language and Linguistic Theory* 29. 939-971.

Pesetsky, D. 1995. *Zero Syntax*. Cambridge, MA: MIT Press.

Preminger, Omer. 2009. Breaking Agreements: Distinguishing Agreement and Clitic-Doubling by Their Failures. *Linguistic Inquiry* 40. 619-666.

Rizzi, Luigi. 1986. Null objects in Italian and the theory of pro. *Linguistic Inquiry* 17. 501-557.

Roberts, Ian. 2010a. *Agreement and Head Movement. Clitics, Incorporation and Defective Goals.* Cambridge, MA: MIT Press.

Roberts, Ian. 2010b. A deletion analysis of null subjects. In Theresa Biberauer, Anders Holmberg, Ian Roberts & Michelle Sheehan *Parametric Variation: Null Subjects in Minimalist Theory,* 58-88. Cambridge: Cambridge University Press.

Schütze, Carson. 1997. Infl in child and adult language: Agreement, case and licensing. Cambridge MA: MIT dissertation.

Sigurðsson, Halldór. A. 1996. Icelandic Finite Verb Agreement. *Working Papers in Scandinavian Syntax* 57: 1-46.

Sportiche, Dominique. 1996. Clitic Constructions. In Johan Rooryck and Laurie Zaring (eds.) *Phrase Structure and the Lexicon*, 213-277. Dordrecht: Kluwer.

Spyropoulos, Vassilios & Anthi Revithiadou. 2009. Subject chains in Greek and PF processing. In *Proceedings of the 2007 Workshop in Greek Syntax and Semantics at MIT*, Halpert, C., J. Hartman & D. Hill (eds.), MTWPL, Cambridge, MA: 293-309

Taraldsen, Tarald Knut. 1995. On Agreement and Nominative Objects in Icelandic. In *Studies in Comparative Germanic Syntax*, edited by Hubert Haider, Susan Olsen and Sten Vikner, 307-327. Dordrecht: Kluwer Academic Publishers.

Tomioka, Satoshi. 2003. The semantics of Japanese null pronouns and its cross-linguistic implications. In Kerstin Schwabe & Susanne Winkler (eds.) *The Interfaces. Deriving and interpreting omitted structures,* 321-340. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Tomioka, Satoshi. 2007. Pragmatics of LF intervention effects: Japanese and Korean wh-interrogatives. *Journal of Pragmatics* 39. 1570–1590.

Torrego, Esther. 1988. A DP Analysis of Spanish Nominals. Ms., University of Massachusetts, Boston.

Uriagereka, Juan. 1995. Aspects of the Syntax of Clitic Placement in Western Romance. *Linguistic Inquiry* 26: 79-124.

Watanabe, Akira. 1993. AGR-based Case Theory and its interaction with the A-Bar system. Cambridge MA: MIT dissertation.

Zaenen, Annie, Joan Maling & Höskuldur, Thráinsson. 1985. Case and grammatical functions: the Icelandic passive. *Natural Language and Linguistic Theory* 3. 441-483.