First conjunct clitic doubling in Modern Greek
Evidence for Agree-based approaches to clitic doubling

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Abstract

We investigate the syntax of the hitherto understudied phenomenon of first conjunct clitic doubling, with reference to Modern Greek. We argue that it provides crucial evidence against movement-based approaches to clitic doubling, which would incorrectly rule out first conjunct clitic doubling as a violation of the Coordinate Structure Constraint. This argument against movement is complemented by evidence from binding, showing that doubled DPs consistently occupy their base positions. The Greek data instead favor an account based purely on feature transmission via Agree. We develop an Agree-based analysis of the Greek facts, and show that existing evidence for movement in Greek clitic doubling (Weak Crossover alleviation, suspension of intervention effects) can be insightfully reanalyzed. The alleviation of Weak Crossover effects receives a more straightforward account compared to movement-based approaches, in that it can be subsumed under the general mitigating effects of information structure (givenness, topicality); the intervention pattern follows once the activity of a DP is related to the involvement of its phi-features in Agree operations, and the distribution of clitic doubling is implemented by means of a licensing approach, assimilating clitic doubling to differential object marking. Finally, we address two morphological aspects of clitic doubling that are often taken to be challenging for an Agree-based account, namely, the syncretism between determiners and clitics, and tense invariance. We show that, upon closer inspection, the former is no less challenging for movement approaches, while the latter cannot be considered a reliable diagnostic to tease apart agreement and clitic doubling.

Keywords: Modern Greek, clitic doubling, agreement, binding, intervention effects, Weak Crossover

1 Introduction

Two phenomena that have separately received much attention in syntactic theory are coordination and clitic doubling (henceforth CLD). The former phenomenon has been the subject of intense scrutiny, with the structure of coordinate phrases often being probed through the lens of how their constituent parts may be targeted for agreement.

The later, CLD, like other doubling constructions, poses significant challenges for theta- and case-theory in that two elements seem to occupy the same argument slot. Several analyses for CLD have been proposed that implement the doubling differently, often on the basis of different languages; but mounting convincing empirical arguments for or against a given approach for a given language has proven difficult.

In this paper, we show that investigating CLD in the context of coordination can shed new light on its underlying syntax. We take as our starting point a largely novel observation,[1] namely, the phenomenon of first conjunct clitic doubling (henceforth FC CLD) in standard Modern Greek (MG).

FC CLD is illustrated in (1) below. There are two ways of doubling the coordinated object *you and Mary*: firstly, the resolved features of the entire coordination can be targeted for doubling, yielding the second plural clitic *sas*; we will refer to this option as resolved doubling. Interestingly, however, doubling can also target just the first conjunct, giving rise to the second singular clitic *se*, an instance of FC CLD. Importantly, only the first conjunct can be targeted in this way: doubling of the second conjunct, here by means of the third singular feminine clitic *tin*, is ungrammatical.[2]

(1) { Se / sas / *tin } iða [esena ke ti Maria] sto parko.
2SG.ACC **2PL**.ACC **3SG.F**.ACC see.PST.1SG you.ACC and the.ACC Mary.ACC in.the park
'I saw you and Mary in the park.'[3] *Modern Greek*

In this paper, we explore the implications of FC CLD for the syntax of clitic doubling in Greek more generally; in particular, we show that FC CLD provides evidence in favor of a pure Agree-based analysis of clitic doubling in this language.

Since our crucial data comes from Greek, the scope of our main claims is circumscribed to this language, and does not necessarily extend to other doubling languages. Our goal here is to provide the best possible analysis of the pattern within a single language; it is very well possible that when applied to other languages, our diagnostics will suggest a different treatment of clitic doubling in that language. We thus stress that we do not wish to claim that what is laid out below is the only possible approach to clitic doubling, nor that it should be understood as *the* theory of clitic doubling.

The paper is structured as follows. Section 2 provides the basic data to be accounted for and provides evidence that FC CLD cannot be reanalyzed as resulting from clausal ellipsis; Section 3 then examines the implications of FC CLD for theories of clitic doubling and concludes that it furnishes evidence against movement-based approaches to CLD since they predict a violation of the Coordinate Structure Constraint. Instead, FC CLD is argued to favor approaches solely based on Agree. Section 4 discusses phenomena taken to support movement in CLD from the previous literature and shows that the data can be accommodated within an Agree-based account. Section 5 addresses morphological aspects of clitic doubling. Section 6 concludes.

2 Data

We begin this section by providing short background points for our claim, focussing on Greek CLD and First Conjunct Agreement (FCA). We continue by (re)introducing FC CLD, and conclude the section by

[1] To the best of our knowledge, the possibility of FC CLD was first noted in Torrego (1995: 226) and Schmitt (1998: 270f.) for Spanish. It is also mentioned in Bošković (2020: 145) for Spanish and Brazilian Portuguese and in Angelopoulos and Sportiche (2021) for Greek. However, none of these approaches examine the properties of the construction in any detail (Angelopoulos and Sportiche 2021 do mention that it argues against big-DP approaches because of a possible Coordinate Structure Constraint (CSC)-violation but do not go beyond that). van Craenenbroeck and van Koppen (2008: 208) make a related observation for pronoun doubling in Wambeek Dutch. Their account of why no violation of the CSC obtains does not extend to FC CLD.

[2] In section 2.3 below, we will provide several diagnostics showing that such examples indeed involve DP-coordination and that, consequently, FC CLD cannot be reanalyzed as resulting from some sort of clausal ellipsis.

[3] Glossing abbreviations: 1 = first person, 2 = second person, 3 = third person, ACC = accusative, COMP = complementizer, DAT = dative, F = feminine, FUT = future, GEN = genitive, IRR = irrealis, M = masculine, N = neuter, NEG = negative, NOM = nominative, PASS = passive, PFV = perfective, PL = plural, PST = past, SG = singular.

fine-tuning the empirical details of our claim, ruling out alternative parses of our coordination examples.

2.1 Background

Our attention in this paper is devoted entirely to clitic doubling as in (2a), where the doubled DP *ton Joryo* occupies an argument position (for a representative treatment of CLD in Greek, see Anagnostopoulou 2003). Clitic doubling is to be distinguished from clitic-left dislocation (CLLD) (2b), where the same DP occupies a higher left-peripheral position (see Angelopoulos and Sportiche 2021 for recent discussion).

(2) a. I Maria ðen **ton** aɣapai **ton** **Joryo**.
the.NOM Mary.NOM NEG 3SG.M.ACC love.3SG the.ACC George.ACC
'Mary doesn't love George.' CLD

b. **Ton** **Joryo**, i Maria ðen **ton** aɣapai.
the.ACC George.ACC the.NOM Mary.NOM NEG 3SG.M.ACC love.3SG
'George, Mary doesn't love.' CLLD

In Greek, only direct and indirect objects can be clitic doubled while PPs and subjects cannot (Greek being a pro-drop language, there are no subject clitics). In line with the findings of much recent work, we assume that, in CLD, the doubled DP occupies an argument position and is not dislocated. There is much evidence against a dislocation analysis from Greek and beyond, based on the doubling of ECM subjects (Angelopoulos 2019: 3; see also our ex. in (28) and (37) below), word order and reconstruction effects (Angelopoulos 2019), case connectivity effects (Harizanov 2014: 1045ff.), and possessor extraction from doubled DPs (Harizanov 2014: 1045ff.). The binding data discussed in Section 3.3 below further support the conclusion that doubled objects remain *in situ*.

A second background point of interest concerns the fact that Modern Greek shows first conjunct agreement (FCA). When the subject is a coordinate phrase, the Greek finite verb can index either the resolved features of the coordination, or the features of the first conjunct; it can never agree with the second conjunct. This situation is exemplified in (3a), where a coordination of second and third singular triggers either second singular or second plural agreement, but not third singular agreement. In (3b), the order of conjuncts has been flipped, with consequences for the agreement possibilities: since the first conjunct is now third singular, third singular agreement on the finite verb becomes possible.[4]

(3) a. Xtes { eftases / ftasate / *eftase } [esi ke i
yesterday arrive.PST.**2SG** arrive.PST.**2PL** arrive.PST.**3SG** you.NOM and the.NOM

[4]Judgments come from the first author and have been confirmed with four more native speakers of Greek. As is standard, we use diacritics like '*' to indicate relative contrasts in acceptability rather than absolute judgments. For our core consultants, first conjunct agreement and doubling are judged as acceptable, although marked relative to their resolved counterparts; we have encountered no speaker for whom first conjunct agreement/doubling has the same status as *last* conjunct agreement/doubling, which is unacceptable for all speakers. Alongside this general pattern, we find inter-speaker variation in more specific domains.

Firstly, we have encountered one speaker for whom doubling of third-singular first conjuncts is unacceptable (Maria Kouneli, p.c.), and an anonymous referee notes that they themselves and speakers they have asked share this restriction. Though none of our consultants finds FC CLD fully degraded with third-singular first conjuncts, one consultant does find it worse than other cases of FC CLD; notably, the same consultant also finds third-singular-targeting FCA worse than other cases of FCA. More generally, whatever individual restrictions exist within a given consultant (including the native speaker author) seem to hold for both FCA and FC CLD, to the best of our knowledge. Note that, on our account, some amount of fine-grained inter- (and possibly intra-)speaker variability is expected for FC CLD, given that the same has been noted for agreement with coordination (see, e.g., Marušič et al. 2015 for Slovenian).

Secondly, we find structured variation with respect to the behavior of collective verbs; see footnote 5. We leave further exploration of these instances of variation for future work, taking care to highlight variation in the acceptability of our examples where appropriate.

Maria] sto parti.
Mary.NOM in.the party
'Yesterday, you and Mary arrived at the party.' *2+3*

b. Xtes { ?eftase / ftasate / *eftases } [i Maria ke
yesterday arrive.PST.**3SG** arrive.PST.**2PL** arrive.PST.**2SG** the.NOM Mary.NOM and
esi] sto parti.
you.NOM in.the party
'Yesterday, Mary and you arrived at the party.' *3+2*

FCA is only possible with postverbal subjects; if we were to change (3) to involve preverbal subjects, only resolved agreement would be possible. Preverbal subjects in Greek are sometimes taken to be left-dislocated elements (Alexiadou and Anagnostopoulou 1998), but their exact status is far from settled (see also fn. 15 below). To ensure the availability of FCA, and to avoid possible complications regarding the position of preverbal subjects, we use postverbal subjects routinely in this paper. We focus chiefly on VSO, a readily available order in Greek clauses; assuming that postverbal subjects in VSO occupy Spec,vP (see Alexiadou and Anagnostopoulou 1998: 496), we will use them as a diagnostic for structure.

2.2 New data: FC CLD

Alongside first conjunct agreement, Greek also allows first conjunct clitic doubling, as discussed with reference to (1) above, repeated here as (4a). (4b) shows that, just as in FCA, switching the order of conjuncts yields new FC CLD possibilities.

(4) a. { Se / sas / *tin } iða [esena ke ti Maria] sto
2SG.ACC **2PL**.ACC **3SG.F**.ACC see.PST.1SG you.ACC and the.ACC Mary.ACC in.the
parko.
park
'I saw you and Mary in the park.' *2+3*

b. { ?Tin / sas / *se } iða [ti Maria ke esena] sto
3SG.F.ACC **2PL**.ACC **2SG**.ACC see.PST.1SG the.ACC Mary.ACC and you.ACC in.the
parko.
park
'I saw Mary and you in the park.' *3+2*

Similar to FCA, FC CLD is only possible with postverbal objects and not with preposed/CLLD-ed objects, a fact discussed in detail in Paparounas and Salzmann (to appear: section 4.3).

In Modern Greek, person and number can participate in FCA, while person, number and gender can participate in FC CLD (*modulo* the variation mentioned in fn. 4). Person resolution proceeds according to the hierarchy 1st > 2nd > 3rd person, and always leads to plural agreement/doubling. Gender resolution patterns in cases of conflicting gender specifications are complex (see Adamson and Anagnostopoulou to appear for a recent approach to resolution in coordination); in our examples, resolution of gender will generally lead to masculine.

In what follows, we argue that first conjunct agreement (3) and first conjunct clitic doubling (4) are two sides of the same coin: like agreement, first conjunct doubling in Greek is derived by means of the operation Agree. Crucially, FC CLD suggests that this Agree operation is not accompanied by movement.

2.3 Ensuring FCA/FC CLD

Before exploring the theoretical implications of the phenomenon, we will first show that the data we have introduced as FCA/FC CLD indeed represent these phenomena, that is, that they involve DP coordination where agreement targets the first conjunct. This will involve fine-tuning the relevant empirical details. More specifically, we will show in this subsection that *a)* the element *ke* is a true coordinator and not a comitative preposition, and that *b)* the crucial examples do not involve a clausal coordination-*cum*-ellipsis parse.

2.3.1 Against a comitative analysis

Crucial in what follows is that the element *ke*, which we gloss as 'and', is actually a coordinator, instead of, for example, a (comitative) preposition. That this is indeed the case is easy to diagnose by means of fronting: unlike *bona fide* comitative PPs, (5), *ke* + DP does not front under focus (6):

(5) [Me to JANI]$_1$ iða ti Maria _$_1$ sto parko.
with the.ACC John.ACC see.PST.1SG the.ACC Mary.ACC in.the park
'It was with John that I saw Mary in the park.'

(6) *[Ke to JANI]$_1$ iða ti Maria _$_1$ sto parko.
and the.ACC John.ACC see.PST.1SG the.ACC Mary.ACC in.the park
Intended: 'It was with John that I saw Mary in the park.'

2.3.2 Ruling out clausal coordination

A central aspect of our argument is that our examples involve true DP coordination, as opposed to a different underlying structure that resembles coordination on the surface. Illustrating with English for convenience, we must ensure that FCA examples such as those examined above have the structure in (7):

(7) arrived [you and Mary]

That we are dealing with (7) is not to be taken for granted; it could be the case that the same strings are generated by structures that involve coordination of larger constituents followed by ellipsis. (8) illustrates these competing possibilities. (8a) involves coordination at the T′ level followed by silencing of the verb in the second conjunct; in (8b), two TPs have been coordinated, with a DP vacating the second conjunct and thereby escaping ellipsis, before the remnant TP is deleted. Following standard terminology, we will refer to the parse in (8a) as gapping, and to (8b) as stripping.

(8) FCA: arrived you and Mary: 2 possibilities
a. gapping: T′-coordination
[$_{T'}$ arrived.2SG you] and [$_{T'}$ ~~arrived.3SG~~ Mary]
b. stripping: A′-mvt + TP-deletion:
[$_{TP}$ arrived.2SG you] — and [$_{CP}$ Mary$_1$ [$_{TP}$ ~~_$_1$ arrived.3SG~~]]

These clausal coordination-plus-ellipsis parses must also be eliminated for the case of FC CLD. Just as in FCA, we must ensure that FC CLD has the structure of true DP coordination as in (9), as opposed to gapping or stripping in (10):

(9) I 2SG-saw [you and Mary]

(10) FC CLD: I saw you and Mary: 2 possibilities

a. gapping/T′-coordination:
I [$_{T'}$ 2SG-saw you] and [$_{T'}$ ~~3SG.F-saw~~ Mary]

b. stripping:
[$_{TP}$ I 2SG-saw you] — and [$_{CP}$ Mary$_1$ [$_{TP}$ ~~I 3SG.F-saw~~ $\_1$]].

Below, we provide diagnostics ensuring that DP coordination is indeed at play in our examples (although such ellipsis parses are, in principle, possible in the language as well). We begin with and focus on FC CLD, and show that there are grammatical FC CLD examples that cannot be generated by a stripping/gapping parse involving coordination of verbal constituents, and thus that FC CLD must be possible with DP coordination.

For a first argument in favor of the possibility of DP coordination with FC CLD, consider (11).

(11) ðen to kerðise pote kanis [to pagosmio protaθlima
NEG 3SG.N.ACC win.PST.3SG never nobody.NOM the.ACC global.N.ACC champsionship.N.ACC
ke tus olimbiakus aɣones] (tin iðja xronia).
and the.ACC olympic.M.PL.ACC game.M.PL.ACC the.ACC same.ACC year.ACC
'Nobody ever won the world championship and the Olympic games (in the same year).'

The natural interpretation of (11) is that no entity has won both contests within some specified interval; this reading is reinforced by the parenthesized material at the end of this example (note that Greek is a negative concord language, hence the example obligatorily includes sentential negation alongside the negative subject). A stripping parse of (11), while possible in principle, predicts a wholly different reading: if (11) were derived from underlying 'Nobody has ever won the world championship and nobody has ever won the Olympic games', (11) should only have the reading whereby nobody ever won either contest, a reading that happens to be obviously false in our world.

Moreover, consider (12).

(12) ðen se iðe kanenas [esena ke ti Maria] sto parti.
NEG 2SG.ACC see.PST.3SG nobody.NOM you.ACC and the.ACC Mary.ACC in.the party
'Nobody saw you and Mary at the party.'

The property of (12) of interest for our purposes is the negative subject *nobody*. Importantly, (12) is grammatical on an interpretation where a single seeing event is negated: more specifically, it is true in a context where someone saw the referent of *you*, and someone saw *Mary*, but nobody saw the referent of *you* and *Mary* together.

This reading cannot be accommodated on a stripping parse, which would have the general shape schematized in (13) and crucially includes the negative quantifier in both conjuncts (nothing here hinges on whether *Mary* would have to vacate a constituent undergoing deletion, or whether deletion is instead distributed):

(13) ðen se iðe kanenas esena ke ~~ðen~~ ~~iðe~~ ~~kanenas~~ ti
NEG 2SG.ACC see.PST.3SG nobody.NOM you.ACC and NEG see.PST.3SG nobody.NOM the.ACC
Maria sto parti.
Mary.ACC in.the party

(13) supplies two conjoined verbal constituents, each containing one seeing event which is negated. In other words, if (13) were the only way to derive (12), (12) should only be true in situations where neither

the referent of *you* nor *Mary* were individually seen. Importantly, however, (12) also has a reading whereby no-one saw the group formed by the referent of *you* and *Mary*, but individual seeing events did take place. As such, DP coordination must be available for (12), even if the parse in (13) is independently possible. The examples in (11) and (12) are also not amenable to a gapping parse: given that the negative subject quantifier is postverbal, it cannot have scope over the coordination if T′-coordination is involved.

A second robust diagnostic ruling out clausal co-ordination involves collective verbs. In (14), FC CLD targets the first conjunct *y'all*; importantly, the sentence accommodates a monoeventive reading whereby addressee and speaker were gathered in the principal's office in a single gathering event, suggesting that the underlying structure does not necessarily supply a bieventive base. Crucially, here an ellipsis base would not just yield the wrong number of events, but would instead be ungrammatical altogether: as (15) shows, *gather* is ungrammatical with a single, singular object, suggesting that (14) cannot be derived by TP-level coordination and gapping/stripping.[5]

(14) I ðiefθindria sas mazepse [esas ke emena] sto ɣrafio tis.
the.NOM principal.NOM 2PL.ACC gather.PST.3SG y'all.ACC and me.ACC in.the office 3SG.F.GEN
'The principal gathered y'all and me in her office.' (single event reading readily possible)

(15) *I ðiefθindria (me) mazepse emena sto ɣrafio tis.
the principal.NOM 1SG.ACC gather.PST.3SG me.ACC in.the office 3SG.F.GEN
'*The principal gathered me in her office.'

Collective verbs can also provide an argument against stripping/gapping for the case of FCA, at least for some speakers (see footnote 5). For the relevant group of speakers, (16) is grammatical but (17) is not, suggesting that (16) must be derivable by means of DP coordination.

(16) Mazeftikate [esis ke eɣo] sto ɣrafio tis ðiefθindrias.
gathered.PST.2PL y'all.NOM and I.NOM in.the office the.GEN principal.GEN
'Y'all and I gathered in the principal's office.'

(17) *Eɣo mazeftika sto ɣrafio tis ðiefθindrias.
I.NOM gather.PST.1SG in.the office the.GEN principal.GEN
'*I gathered in the principal's office.'

In conclusion, then, FC CLD cannot be reanalyzed as resulting from clausal coordination + ellipsis. Rather, it obtains in the presence of DP-coordination.[6]

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[5] The behavior of collective verbs under FC CLD/FCA is subject to inter-speaker variation. The first author and one of our consultants freely allow FC CLD/FCA with collective verbs. Two other consultants only allow it as long as one of the conjuncts is syntactically plural, as in the examples in the main text. For these speakers, the same examples with a coordination of singulars are unacceptable; see Munn (1999) for similar correlations between syntactic plurality and collectivity in varieties of Arabic. Finally, for one of our consultants, FC CLD/FCA is ungrammatical with collective verbs across the board, even though the same speaker allows FC CLD/FCA elsewhere.

[6] Other tests employed to rule out stripping/gapping parses in the literature on FCA include clause-final adverbs like *together* and *simultaneously/on the same day*; see e.g. Munn (1999). We do not use examples of this kind here as they do not deliver reliable results for Greek, which behaves similarly to Spanish in this respect (see Saab and Zdrojewski 2021); for example, (i) is grammatical, but so is (ii), suggesting that *on the same day/together/simultaneously* do not rule out an ellipsis parse of FC CLD.

(i) Se iða [esena ke ti Maria] tin iðja mera / mazi / taftoxrona.
2SG.ACC see.PST.1SG you.ACC and the.ACC Mary.ACC the.ACC same.ACC day.ACC together simultaneously
'I saw you and Mary on the same day/together/simultaneously.'

(ii) Se iða esena ke iða ti Maria tin iðja mera / mazi / taftoxrona.
2SG.ACC see.PST.1SG you.ACC and see.PST.1SG the.ACC Mary.ACC the.ACC same.ACC day.ACC together simultaneously

3 Implications for theories of CLD

In this section, we begin by briefly surveying (families of) theories of CLD, before arguing that only one of them is compatible with our FC CLD data, namely, the family of pure Agree-based approaches, while movement-based approaches fail because they would incur a violation of the Coordinate Structure Constraint in the derivation of FC CLD. In the third part of this section, we provide new arguments against movement-based approaches, focussing on data from binding Conditions A and C.

3.1 Theories of clitic doubling

On the surface, clitic doubling is a puzzle for theories of Case and thematic interpretation. The structure contains two elements, namely the clitic and the doubled DP, but presumably only one locus of thematic interpretation and Case assignment. Of the two elements, then, one must be assigned the role of the primary argument, with the other being licensed in a different way. To articulate a theory of clitic doubling, then, is to specify what the mechanism is that gives rise to doubling (see Anagnostopoulou 2017a for a recent overview).

In this section, we briefly summarize the three major approaches to clitic doubling, focusing less on details of technical implementation and more on the question of how the presence of the clitic is derived in each account (we will thus omit verb movement to T and optional externalization of the subject to Spec,TP in our diagrams). Of crucial interest here is whether a given account involves movement, and if so, what type of movement is assumed. As we will argue, the availability of FC CLD in Greek is only compatible with approaches that do not postulate movement of either the doubled DP or the clitic.

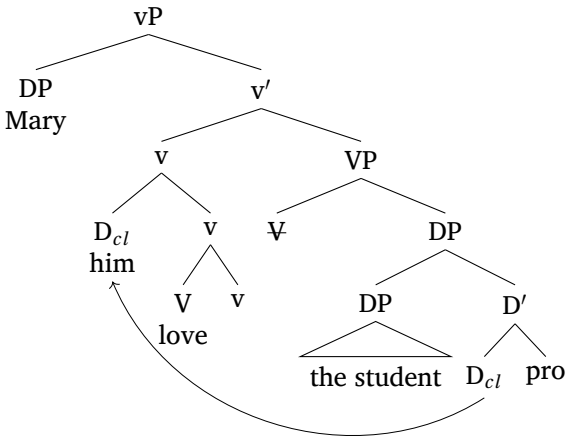
Throughout, we illustrate the different analyses by providing (simplified) trees for the simple clitic doubling example in (18).

(18) I Maria **ton** aɣapai **ton** **fititi**.
the.NOM Mary.NOM 3SG.M.ACC love.3SG the.ACC student.ACC
'Mary loves the student.'

In the family of theories known as the big-DP approach, the clitic and the doubled DP are taken to originate in the same DP constituent. The underlying intuition is that anaphoric dependencies are captured derivationally, such that the two elements are coindexed because they have formed a constituent in the base. Different flavors of this approach vary with respect to the exact structure of the big DP. Some analyses take clitics to head the big DP with the doubled DP being projected in the specifier (Uriagereka 1995: 81); others treat clitics as adjuncts to the doubled DP (Nevins 2011); and others yet embed clitics as specifiers within a functional projection that also hosts the (doubled) DP (Arregi & Nevins 2012: 53ff.). These differences aside, these approaches are united in uniformly postulating that the clitic strands the DP in the course of the derivation by moving to a verbal projection, as schematized in (19), which is based on the structure of Uriagereka (1995: 81):

(19)

'I saw you and I saw Mary on the same day/together/simultaneously.'



In big-DP approaches, then, the clitic is an independent syntactic element, projected within the big DP from the start of the derivation.

This is not so in a different class of movement-based approaches, where clitics are treated as additional realizations of the D head introducing the doubled DP. We refer to these analyses as *derivational*, in the sense that they take clitics to lack independent status underlyingly, and to arise over the course of the syntactic derivation. At least two implementations of the derivational approach have been put forward.

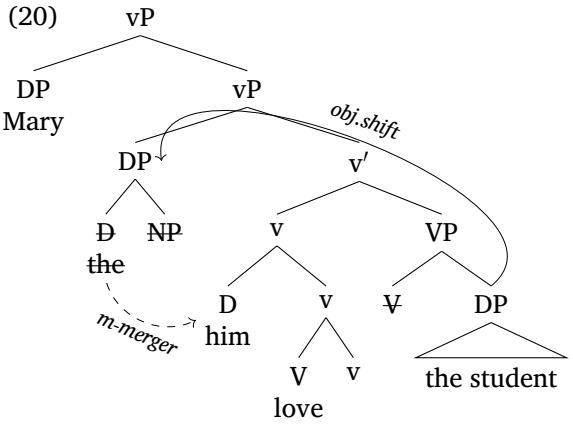
In one type of analysis, clitic doubling is derived by means of A-movement and rebracketing (Harizanov 2014; Kramer 2014): the doubled DP undergoes object shift to a peripheral position within the vP; the D head subsequently amalgamates downward with the verbal head whose specifier hosts the doubled DP, via rebracketing or m-merger (Matushansky 2006). On this type of analysis, illustrated in (20) below, it is crucial that only the lower copy of the A-moved DP and the rebracketed D head are realized.[7]

A second implementation of the derivational approach takes the clitic to arise by means of long head movement (e.g., Řezáč 2008, Roberts 2010, Preminger 2009, 2011, 2019). On this approach, an Agree dependency between v and the object DP triggers movement of just the head of the DP to the probe v; the clitic is then the realization of the moved D head (Preminger 2019: 31ff.). Under this analysis, doubling arises because both the moved D and the doubled DP are realized at PF (Preminger 2019: 20), see (21):

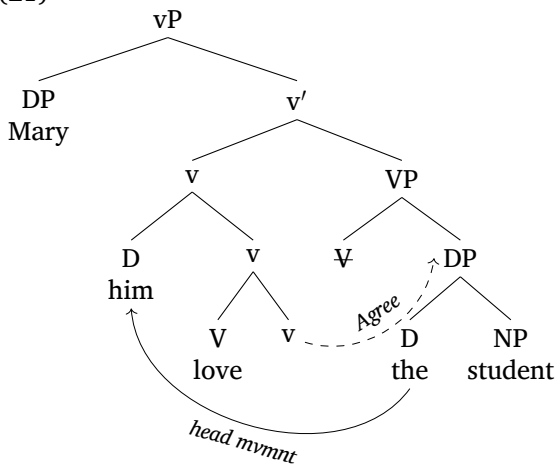
[7] A-movement in these approaches is usually motivated based on the observation that the types of DPs that can be doubled are similar to those that undergo scrambling/object shift in Germanic languages, viz., definite or specific DPs. However, there is no full parallelism between what can be clitic-doubled and what can undergo object shift in languages where this can be seen on the surface, see, e.g., Baker and Kramer (2018: 1040) for discussion. Thus, in Greek, doubling can involve non-specific indefinites, weak definites or idiom chunks, which do not scramble in scrambling languages. Furthermore, animacy plays an important role for CLD in some languages (with human DPs being more likely to be doubled than inanimate DPs), but it plays no role in object shift/scrambling.

We will come back to semantic restrictions on doubling in sections 4.1 and 4.2. In section 3.3 we will provide binding-theoretic evidence against A-movement.

(20)



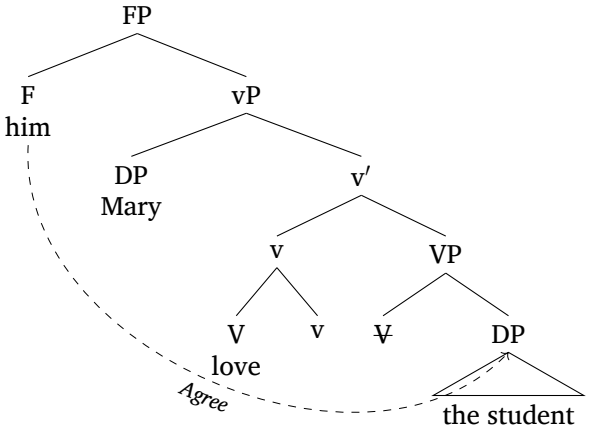
(21)



Despite important differences between them, the theories outlined thus far share *movement* as a crucial aspect of the generation of clitics. In big-DP approaches, the independent D head strands the doubled DP by evacuating the big DP, while in derivational approaches the clitic spells out a D head that has become amalgamated with v, either due to A-movement plus rebracketing or due to head movement.

The last family of approaches treats clitics as agreement markers, viz., as a type of object agreement. The idea goes back to at least Suñer (1988), who proposes that the clitics are base-generated agreement markers on the verb that form a chain with the doubled DP (which occupies an argument position). Given current assumptions about the syntax-morphology interface, such an approach would arguably be recast by having the clitic be the spell-out of ϕ features copied from the doubled DP onto a probe on a functional head via Agree. Such an approach is sketched in (22) below, where the functional head equipped with an Agree probe is labeled as F for convenience. Crucially, this approach involves only feature copying (or sharing), but no movement.

(22)



The presentation above was slightly idealized in that many approaches are hybrid in practice, incorporating components of more than one theory. Quite a few in fact include (A-)movement in addition to the arguably

main ingredient. For instance, the big-DP-approaches by Uriagereka (1995) and Nevins (2011) include an object-shift-like phrasal movement step before the clitic attaches to the verb (via head-movement or morphological merger). A-movement components can also be found in agreement approaches. In Sportiche (1996), clitics are treated as independent functional heads in the extended projection of the verb (in fact situated above AgrSP). The doubled DP undergoes covert movement to the specifier of the clitic head to satisfy a clitic criterion. The covert movement step is related to object shift/scrambling (where movement is overt but the functional head is silent) in that both operations are related to specificity. Depending on the clitic (Sportiche only discusses French clitics, though), the covert movement step may instantiate A- or A′-movement. More recently, Angelopoulos (2019: 21) proposes that there is a scrambling-like A-movement step of the doubled DP to a specifier of a functional head X above vP followed by Agree with a clitic head, which is situated below T (the A-movement step being a precondition for the DP to become accessible to Agree).[8]

3.2 An argument in favor of a pure Agree approach

In light of the immediately preceding discussion, the relevance of our FC CLD data to theories of clitic doubling more generally becomes clear: under most of the approaches just outlined, FC CLD will lead to a violation of the Coordinate Structure Constraint (CSC, Ross 1967), which bans extraction of individual conjuncts and asymmetric extraction from individual conjuncts.[9] We will first illustrate the consequences for the different approaches to CLD, then show that the CSC holds in the relevant environments in Greek and finally address alternatives to avoid the CSC-violation/alternative conceptions of the CSC.

3.2.1 The CSC and different approaches to clitic doubling

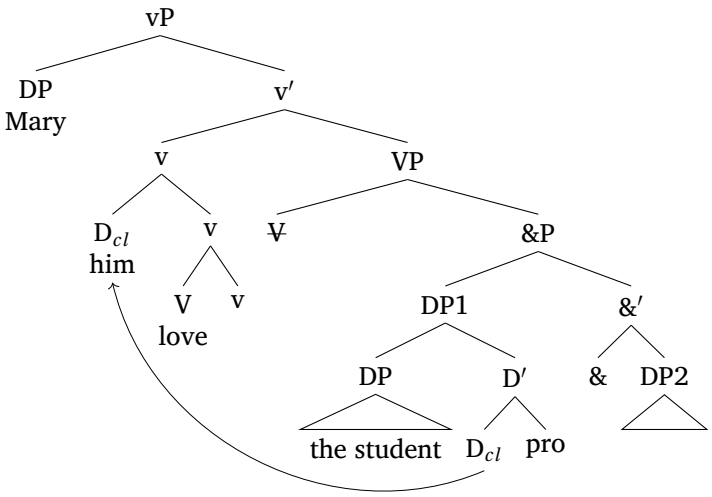
Starting with the big-DP analysis, where the clitic would be associated only with the first conjunct, movement of the clitic to the verb would involve subextraction from one conjunct and thus a CSC violation.[10]

[8] It is in fact not clear to us whether the movement in question is taken to be overt or covert. Since it is not visible on the surface (doubled objects follow postverbal subjects), it would seem to be covert, but this is not how the proposal is framed. If overt movement is indeed involved, a lot of material that seems in-situ will in fact have to have moved to higher positions.

[9] In what follows we will assume an asymmetric structure of &P, in line with most current work. We do so being aware of the fact that several arguments supposed to illustrate c-command between the first and second conjunct are inconclusive: the variable binding and Condition C evidence introduced in Munn (1993: 16) is shown to be problematic in Progovac (1998). Asymmetries regarding selection have recently been argued to depend on linear order rather than hierarchy, see Bruening and Al Khalaf (2020). First/closest conjunct agreement is usually considered one of the best arguments for asymmetric structure. While there is also evidence for linear order playing a role (with last conjunct agreement (LCA) in preverbal position), there remains an interesting asymmetry in that, without a structural asymmetry between the two conjuncts, it is difficult to explain why there can be FCA in preverbal position but not LCA in postverbal position, see Nevins and Weisser (2019). Further arguments may come from the ATB exceptions discussed in Bošković (2020), which all involve only the first conjunct. See also Lyskawa (2021: 113-163) for an overview of many of the diagnostics.

[10] For discussion of other problematic aspects of the big-DP approach, see Angelopoulos and Sportiche (2021: 51ff.).

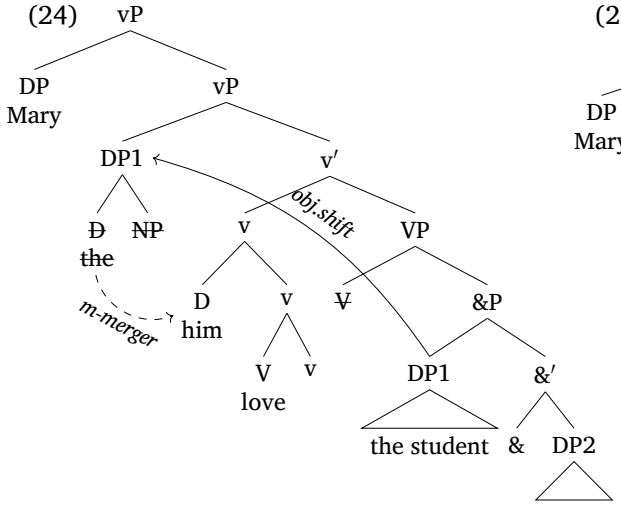
(23)



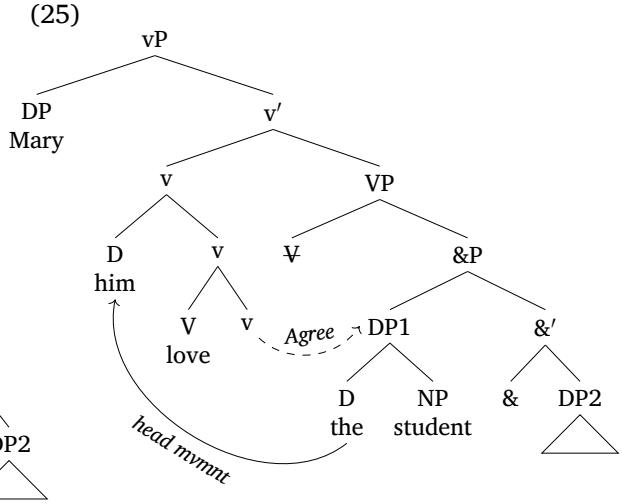
Similarly, an account based on A-movement and rebracketing would involve asymmetric A-movement of the entire first conjunct to, say, Spec,vP, again violating the CSC (24).[11]

Finally, the head movement approach would postulate asymmetric head movement of the D-head of the first conjunct to the verb, an instance of subextraction also in violation of the CSC, see (25):

(24)



(25)

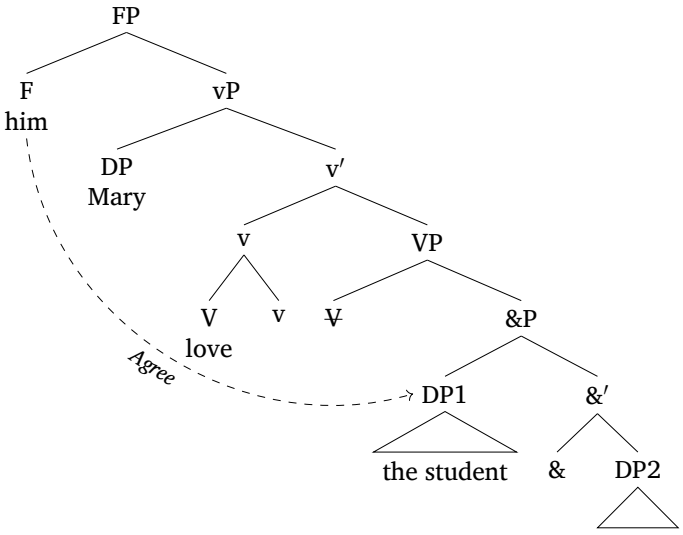


Importantly, an approach purely based on Agree (26) does not suffer from the same problem: since this

[11] Things would be different in the approach by Angelopoulos (2019: 21), where A-movement targets a position below the Agree-probe. It is conceivable that the entire &P A-moves, followed by Agree between the clitic probe and the first conjunct. Note that such a derivation is not possible if A-movement targets the specifier of the clitic probe (as in Sportiche 1996), as only resolved doubling is possible in such configurations, see Paparounas and Salzmann (to appear). Importantly, an analysis where A-movement of &P precedes Agree with the first conjunct is precluded for the ECM-examples in (28) and (37) below.

approach only involves feature-copying but not movement, it is not subject to the CSC.[12] By virtue of being the only approach compatible with the CSC (under both traditional and revised formulations of this constraint; see below), FC CLD favors an approach to CLD in Greek that purely rests on Agree.[13]

(26)



Our argument parallels that by Legate (2014) and Kalin and Weisser (2019) against movement approaches to differential subject and object marking, respectively. They show that it is possible to coordinate both marked and unmarked subjects/objects. If DSM and DOM involved A-movement, such coordination would lead to a violation of the CSC.[14]

3.2.2 The CSC holds in Greek

A possible objection to our claim would call into question the status of the CSC as a locality constraint. On the one hand, there does exist evidence that the CSC has semantic components, viz., requires some sort of

[12]The fact that Agree is exempt from the CSC is usually motivated empirically, viz., by phenomena like first conjunct agreement. The reason for this locality difference between Agree and movement is arguably related to the fact that the CSC requires some sort of semantic symmetry of the conjuncts (cf. Fox 2000). Asymmetric extraction is only possible if the extractee either binds a variable in the other conjunct or undergoes total reconstruction (see also below). Since Agree has no effect on semantic interpretation, viz., does not create variables or displaces contentful features (see also section 3.3 below), it is consequently not expected to be subject to the CSC.

[13]One may wonder whether the FC CLD facts are compatible with early base-generation approaches to clitic doubling like Jaeggli (1982); in those approaches, the clitic is generated together with the verb, while the NP still occupies its argument position (note that unlike in the agreement approach by Suñer 1988 mentioned above, here, the clitic absorbs case and receives a theta-role). However, since in the case of FC CLD the clitic does not represent an argument of the verb (but only a part thereof), it is not clear to us whether this analysis would be admissible.

In Baker and Kramer (2018: 1041f.), the clitic is interpreted in a position adjoined to v. The authors leave it open how the clitic surfaces there. If it is base-generated there (an option they entertain), their analysis is also compatible with the CSC-facts. If the clitic reaches that position via movement instead, the familiar CSC problem arises for their approach as well.

[14]The arguments from DOM have recently been called into question for Spanish, see Saab and Zdrojewski (2021), who argue that asymmetric DOM actually involves stripping. Importantly, their arguments do not apply to our data as the diagnostics we used against stripping in section 2.3.2 are not subject to the same criticisms.

semantic symmetry, see, e.g., Fox (2000). On the other hand, there is also a class of (putative) exceptions, see Postal (1998: chapter 3), Lin (2002), and, more recently, Bošković (2019, 2020).

In what follows, we will show that the CSC independently holds for A-movement in Greek (for reasons internal to Greek outlined below, the same cannot be done for head movement without certain confounds). In addition, we will show that there can be FC CLD in environments where even under approaches like Bošković (2019, 2020), which in principle allow for exceptions to the CSC, asymmetric extraction would still be banned.

We start by showing that asymmetric A-movement of an entire conjunct, as required under A-movement-based approaches to CLD, is impossible in MG. (27a) shows that a coordinated subject is fine in postverbal position. However, fronting the first conjunct to Spec,TP is impossible (27b), irrespective of the agreement on the verb. Note that the use of a collective verb ensures (for the relevant speakers, see footnote 5) that a stripping/gapping parse is unavailable in (27). Furthermore, we use a passive example; the subject is thus an underlying object and asymmetric extraction would not be independently ruled out by some other locality constraint such as a ban on extraction from external arguments. Similar examples can be constructed with other collective verbs, e.g. *sigendrono* 'bring together'.[15]

(27) a. Mazeftikame / mazeftikate [esis ke eɣo] stin platia apo ton gather.PST.PASS.1PL gather.PST.PASS.2PL y'all.NOM and I.NOM in.the square from the siloɣo eryazomenon.
union worker.GEN.PL
'Y'all and I were summoned in the town square by the workers' union.'

b. *Esis mazeftikame / mazeftikate [_ ke eɣo] stin platia apo ton siloɣo y'all.NOM gather.PASS.1PL gather.PASS.2PL and I.NOM in.the square from the union eryazomenon.
worker.GEN.PL

Since postverbal subjects consisting of a DP-coordination are well-formed, (27a), the ungrammaticality of (27b) cannot easily be related to independent factors such as case or agreement. Rather, it is plausibly due to a violation of the CSC.[16]

Importantly, clitic doubling can also occur in environments which would require subextraction from a conjunct under an A-movement approach (and also under big-DP and head movement-based accounts).

[15]It should be mentioned that the existence of A-movement to the subject position is somewhat contested in Greek. Preverbal subjects often have properties of topics, see Alexiadou and Anagnostopoulou (1998), hence they are sometimes treated as dislocated. However, since negatively quantified subjects can also occur preverbally (see Angelopoulos and Sportiche 2022: ex. 42b), this cannot generally be correct for all subjects. Furthermore, Oikonomou et al. (2020) show that (some) preverbal subjects can take narrow scope w.r.t. quantified objects, suggesting that they occupy an A-position. Finally, the binding data discussed in 3.3.1 below, which show that preverbal anaphors can be interpreted both in their surface and in their premovement position, suggests very much that A-movement is involved (A′-movement normally does not lead to new binding possibilities).

[16]Note that, as a reviewer points out, examples like (27) have an irrelevant alternative parse whereby the *by*-phrase is a source PP modifying a silent first-plural pronoun; on this parse, this example would mean 'y'all and I, of the worker's union, gathered'. To the extent that this reading obtains, it is far from the only one: (27) was based on attested (i), uttered by a deputy mayor at an event organized by a workers' union (with the deputy mayor presumably not being a member of the workers' union). Note also that, on this alternative parse, 'gather' is presumably an unaccusative verb, thus still involving A-movement from the underlying object position and thus serving the same diagnostic purpose as the passive.

(i) Mazeftikame apo ton siloɣo eryazomenon.
gather.PASS.1PL from the union worker.GEN.PL
'We were summoned by the workers' union.' https://tinyurl.com/2vnyb6ck, accessed 12/30/2022

The following example illustrates CLD of the ECM subject of the first conjunct (note that here, doubling the second conjunct or combining the features of both ECM subjects in resolved doubling is not possible):[17]

(28) Kanis ðen ton ekane to Jani na xorepsi ke ti
nobody.NOM NEG 3SG.M.ACC make.PST.3SG the.ACC John.ACC COMP sing.PFV.3SG and the.ACC
Maria na traɣuðisi.
Mary.ACC COMP sing.PFV.3SG
'Nobody made John dance and Mary sing.'

Note that the negatively quantified subject rules out conjunction reduction (under the relevant reading where it is the case that no single X caused both events).

Asymmetric subextraction from a conjunct involving A-movement as would be needed in (28) can be shown to be unavailable in Greek. The following example illustrates asymmetric raising to subject:

(29) ?*Oli i fitites arxisan na ðjavazun to vivlio ke
all.NOM.PL the.NOM.PL student.NOM.PL start.PST.3PL COMP read.3SG the.ACC book.ACC and
na meletun oli i daskali to perioðiko.
COMP study.3PL all.NOM.PL the.NOM.PL teacher.NOM.PL the.ACC magazine.ACC
'All the students started reading the book and all the professors started perusing the magazine.'

Note that since Greek has backward raising (whereby the subject occurs in the complement clause rather than in the subject position of the raising verb, see Alexiadou et al. 2012), one cannot easily rule such structures out for independent reasons: the subject of the second conjunct is in the embedded clause, just like a subject in backward raising.

In this context, it is useful to discuss the the CSC theory of Lin (2002: 72), which allows asymmetric A-movement from coordination under specific circumstances, namely as long as the moved DP undergoes total reconstruction (or binds a variable in the second conjunct):

(30) **[Many drummers]** $_1$ can't [$\__1$ leave on Friday] and [many guitarists arrive on Sunday]
(¬ > many)

One could therefore imagine that an example like (29) becomes grammatical if the asymmetrically extracted subject reconstructs. Unfortunately, raised subjects do not seem to be able to reconstruct for scope (i.e., take narrow scope w.r.t. the matrix verb/matrix negation) in Greek, see Alexiadou et al. (2012: 98f., ex. 41a/43a). Thus, the following example involving asymmetric raising is ungrammatical, but since narrow scope of the moved subject is independently unavailable, this is unsurprising given the theory developed in Lin (2002).

(31) * **[Oli i fitites]** $_1$ ðen arxisan [na ðjavazun $\__1$ to vivlio] ke
all.NOM the.NOM students.NOM NEG start.PST.3PL COMP read.3PL the.ACC book.ACC and
[na meletun **oli i ðaskali** to perioðiko]
COMP study.3PL all.NOM the.NOM teachers.NOM the.ACC magazine.ACC
Intended: 'All the students did not begin reading the book, and not all teachers began to peruse the magazine.'

[17] The analysis of Greek ECM is contested. There is at this point no consensus on whether it involves ECM proper, raising to object, prolepsis or object control. In addition, not all verbs that correspond to English ECM verbs may pattern the same. See Kotzoglou (2017) for recent discussion. For our purposes, these different analytical options are orthogonal to the point being made here: all that matters is that there can be FC CLD of an XP that is embedded in a coordination involving verbal/clausal constituents, such as VP and TP. The example in (37) below, however, does rule out an analysis in terms of raising to object, prolepsis or object control.

One might object at this point that the examples in the text illustrate the CSC-compatibility of Greek based on overt A-movement; consequently, it does not necessarily rule out asymmetric *covert* A-movement in the derivation of clitic doubling. Indeed, it is, in principle, conceivable that A-movement in some of the movement approaches introduced above is actually covert (given that the doubled DP seems to occupy its base position on the surface). However, there is no reason to believe that covert movement is not subject to the CSC, see, e.g., Bošković and Franks (2000). While they do not discuss covert A-movement, given the generalization in Lin (2002), there is no reason to expect covert A-movement to be exempt from the CSC.[18]

While one can demonstrate that the CSC holds for A-movement independently in the language, this is, unfortunately, not possible for head-movement. This has to do with the fact that all attested instances of head-movement can be argued to be crucially implicated in deriving affixation: for instance, it could be the case that the verb moves to T to pick up tense and agreement inflection, the participle moves to Asp for participial morphology, and the verb moves to C to pick up imperative morphology. Consequently, any example where the verb in the second conjunct fails to move to the relevant head can be argued to be ruled out for independent reasons: the verb would fail to receive the necessary morphology. As such, it does not seem possible to construct an example not showing this confound. The confound of course arises only on a certain view of how affixation is effected; but this is certainly a possible view, and we lack the space to examine its correctness for Greek.

Thus, demonstrating the validity of the CSC for head-movement requires an instance of verb movement that is unrelated to affixation such as English T-to-C-movement or verb second movement in Germanic. Given that the CSC has been demonstrated to hold in such environments, see (32), we still see no reason to exempt potential head-movement in movement accounts of CLD from the CSC.

(32) *Should Mary buy a house and Sue could sell her car?

3.2.3 Alternative big-DP structures and differenct conceptions of the CSC

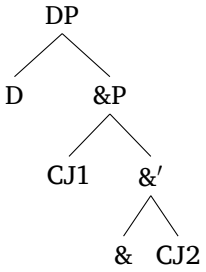
Before concluding this subsection, we show that our argument against movement-based approaches to CLD in Greek goes through even if we attempt to rescue movement by assuming *(a)* alternative big-DP structures or *(b)* a more refined CSC.

Firstly, as suggested to us by Karlos Arregi (p.c.), the big-DP analysis could avoid a CSC violation if D were to be generated outside of &P as in (33) and undergo Agree with either the 1st CJ, yielding FC CLD, or &P, yielding resolved doubling:

[18]Note in this context that there is, to the best of our knowledge, no clear evidence of covert A-movement anywhere else in the grammar of Modern Greek. With respect to cross-clausal raising, as shown in Alexiadou et al. (2012: 98f.), backward raising only allows narrow scope w.r.t. the matrix predicate, suggesting an Agree relationship with the matrix clause rather than covert raising. W.r.t. local covert movement of the subject to Spec,TP, the following example shows that an unaccusative subject that surfaces below a reflexive experiencer does not move across it covertly since it fails to bind the reflexive:

(i) ??Tu aresi [tu eaftu tu]$_i$ [o Yanis]$_i$.
3SG.M.GEN please.3SG the.GEN self.GEN 3SG.M.GEN the.NOM John.NOM
'*Himself$_i$ likes John$_i$.'

(33)



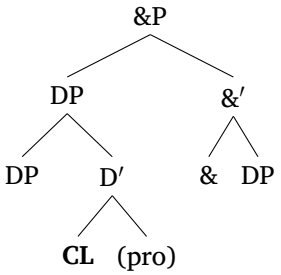
Under this structure, movement of the clitic D would not be asymmetric, circumventing the CSC-violation. In principle, this structure is indeed a viable alternative, putting to the side the question of whether it would be incompatible with the assumptions of certain individual versions of the big-DP analysis.[19] Importantly, though, this reanalysis will only work for instances of DP coordination but not for examples like (28), where what is coordinated are largers structures, e.g., vPs or TPs (the D head would have to take a coordination of vPs/TPs as its complement, which would not be in the spirit of the big-DP hypothesis).

Second, recent work by Bošković (2019, 2020) has argued that the CSC does hold for successive-cyclic movement out of &P, but that it is violable if extraction involves an element that is either base-generated at the edge of the first conjunct or independently capable of moving there, with this asymmetry argued to be related to labeling. The following example from Galician is supposed to instantiate one such case of CSC avoidance. Here, the definite determiner associated with the first conjunct can asymmetrically cliticize onto the verb; since it is the head of the DP, it is located at the edge and can move without violating the CSC.

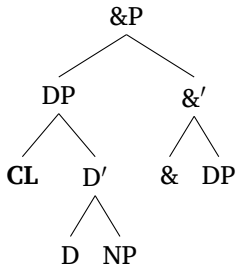
(34) Vistede=lo$_1$ [$_{DP}$ _1 [$_{NP}$ amigo de Xan]] e-mais [$_{DP}$ a Diego] onte.
(you)saw=the friend of Xan and Diego yesterday
'You saw Xan's friend and Diego yesterday.' *Galician*

Given the big-DP hypothesis, FC CLD could now be predicted to be possible: movement of the clitic would take place from the edge of the first conjunct as long as the clitic is either the head of DP, (35), or its specifier, (36):

(35)



(36)



Given this theory of the CSC, FC CLD of coordinated DPs would no longer be ruled out under a big-DP analysis or a head-movement analysis (the derivation in the latter case would be essentially the same as

[19]For instance, it is not clear how to translate this structure into the version of Arregi and Nevins (2012: 53), where the clitic occupies the specifier of a KP that also contains the DP that the clitic doubles and projections hosting person features (PartP). One would arguably not want to place the KP- and PartP-structure outside of &P, as it would never be pronounced there.

in the Galician example above). For the A-movement approach, the result would be mixed. It would still fail for asymmetric extraction of the first conjunct of objects consisting of coordinated DPs, like most of the examples in this paper. However, A-movement might become a possibility for examples involving subextraction like (28) where the first ECM subject could be argued to be located on the edge of the first vP/TP conjunct.

However, even this attempt to rule in CSC violations in a restricted fashion is not sufficient to accommodate FC CLD under movement-based approaches. Once we consider different configurations, FC CLD turns out to remain incompatible with such approaches. To see why, consider the following example, which like (28) involves coordinated ECM clauses with asymmetric CLD of the first ECM subject (as in (28), doubling the second conjunct or combining the features of both ECM subjects in resolved doubling is not possible).

(37) ðen { **tin** / ***ton** / ***tus** } ekane kanis [avrio
NEG 3SG.F.ACC 3SG.M.ACC 3PL.M.ACC.PL make.PST.3SG nobody.NOM tomorrow
ti **Maria** na erθi] ke [tin epomeni evðomaða to Jani na
the.ACC Mary.ACC COMP come.PFV.3SG and the next week the.ACC John.ACC COMP
fiji].
leave.PFV.3SG
'No-one made Mary come tomorrow and John leave next week.'

Note that the negative quantifier rules out a conjunction reduction parse (under the relevant reading where *no one* has scope over both events). This example crucially differs from (28) in that the adverbs at the beginning of each conjunct ensure that the ECM subjects are not at the edge of the conjunct. Consequently, under a big-DP, head-movement or A-movement approach, CLD would require movement from a position that is not at the edge of the conjunct, violating even the refined version of the CSC developed in Bošković (2019, 2020). We therefore conclude that our argument against movement-based approaches to CLD still stands.[20,21]

Importantly, for our argument against movement, it is in principle immaterial exactly how Agree-based FC CLD arises, viz., whether it results from syntactic Agree with just the first conjunct (which is equidistant with &P, see, e.g., van Koppen 2005); rule ordering, where only the features of the first conjunct are projected to &P and then targeted by an Agree-probe (Murphy and Puškar 2018), labeling, where the absence of labeling of the coordination leaves the first conjunct as the only possible goal (Larson 2013), or copying from the linearly closest conjunct at PF (e.g., Marušič et al. 2015). However, given the interaction of CLD with intervention effects discussed below where clitic doubling of an indirect object deactivates it for further ϕ-Agree, only a syntactic Agree-approach is viable (while a post-syntactic account cannot deal with this type of interaction). A similar argument against a post-syntactic approach is presented in Paparounas and Salzmann (to appear), where we show that FC CLD interacts with the Person Case Constraint; there, we argue that the patterns actually slightly favor an approach in terms of rule ordering.[22]

[20] Note that the example in (37) shows that this is indeed ECM and not raising to object/object control/prolepsis given that the accusative-marked DP occurs after an adverb belonging to the embedded clause. This in turn provides further evidence against the dislocation analysis of clitic doubling under which the doubled DP would be structurally higher than the clitic.

[21] Big-DP and head-movement approaches are confronted with another locality problem when indirect objects are doubled: If the indirect object is projected in a specifier (e.g., ApplP), clitic-/head-movement will involve subextraction from an XP in a specifier, in violation of the Condition on Extraction Domains (Huang 1982).

[22] As pointed out to us by Philipp Weisser (p.c.), adopting the approach in Murphy and Puškar (2018) partially undermines our CSC-based argument against the derivational approaches, at least for the cases involving DP coordination. Given that the features of the first conjunct are present on &/&P, clitic doubling can arise *(i)* through A-movement of the entire &P, followed by rebracketing of & with the verb; or *(ii)* through head-movement of & to the verb, thus without asymmetric extraction and thus no violation of the CSC. Importantly, though, our CSC argument based on coordinated ECM clauses as in (37) would still stand as in those cases, no

3.3 Further arguments against movement in CLD: Binding

Certain movement-based approaches to CLD make clear predictions with respect to binding: in those theories where CLD is accompanied by (overt or covert) A-movement of a DP or head-movement of the double's D head, CLD should be able to affect binding, either by creating new binding possibilities or destroying existing ones, as the case may be.

In this subsection, we show that this prediction is not borne out for Greek. Instead, the binding data presented here very much suggest that the doubled DP occupies its base position in this language – as such, they furnish additional evidence against an approach tying Greek CLD to A-movement or object shift/scrambling. We first establish a baseline by showing that overt A-movement, viz., raising of the subject, can affect Binding Conditions A and C in both English and Greek. In a second step, we discuss the binding profile of (local A-)scrambling in other languages. Then, we show that clitic doubling has no effect in the domain of Condition C and Condition A. Thus, its binding profile is different both from that of A-movement constructions like raising and from local A-scrambling.

We would like to point out that, to the best of our knowledge, we are the first to systematically discuss the effect of clitic doubling on Binding Conditions A/C. In the literature on the topic, the evidence for (A-)movement has been based almost exclusively on an arguably more poorly understood binding-related phenomenon, namely, the alleviation of Weak Crossover Effects. That clitic doubling does not interact with binding for Condition A/C will lead us to reassess the WCO-based evidence offered ostensibly in favor of movement, in section 4.2 below. As we will see, an alternative to WCO alleviation by means of A-movement, namely, one that capitalizes on the role of information structure, is readily available. We thus eventually arrive at a very different empirical picture to that given by previous literature, at least for the case of Modern Greek: clitic doubling does not affect binding.

3.3.1 The binding pattern in overt A-movement

Given that CLD has been claimed to involve A-movement, we first spell out what kind of effects on binding one expects on the basis of what is known about the binding profile of A-movement.

As is well known, A-movement can be interpreted in its landing site. As the following two English examples show, this can lead to new binding possibilities in the case of Condition A and alleviation of Condition C effects, see Lebeaux (2009: 32):

(38) a. [John$_i$]$_1$ seems to himself$_i$ to $\__1$ like cheese.
b. [John's$_i$ mother] seems to him$_i$ to be $\__1$ wonderful.

In both cases, a grammatical result only obtains if the moved XP is interpreted in its landing site. A-movement can, of course, also undergo reconstruction as, e.g., in (39), where the anaphor can only be bound if the moved phrase is interpreted in the embedded clause, see, Lebeaux (2009: 35):

(39) [Each other$_i$'s parents]$_1$ seem to the boys$_i$ to be $\__1$ quite wonderful.

Raising of the subject in Modern Greek displays the same properties. In both cross-clausal raising (40) and local raising to Spec,TP (41), the moved XP can be interpreted in its landing site. It thus leads to new binding possibilities for Condition A in the a. examples and alleviates Condition C effects in the b. examples (see Anagnostopoulou 2003: 171-176 for evidence that *fenete* is a proper raising verb).

ϕ-features of the ECM subjects would be present on &P. Consequently, asymmetric movement would be inevitable for the features of the first ECM subject to land on the ECM verb.

(40) a. [O Janis$_i$]$_1$ tu fenete tu eaftu tu$_i$ na aksizi
the.NOM John.NOM 3SG.M.GEN seem.3SG the.GEN self.GEN 3SG.M.GEN COMP deserve.3SG
_$_1$ vravio.
prize.ACC
'John$_i$ seems to himself$_i$ to deserve a prize.'

b. [Aftes i fotoɣrafies tu Jani$_i$]$_1$ tu$_i$ fenonde na ine
these.NOM the.NOM picture.NOM.PL the.GEN John.GEN 3SG.M.GEN seem.3PL COMP be.3PL
_$_1$ pseftices.
fake.NOM.PL
'These pictures of John$_i$ seem to him$_i$ to be fake.'

(41) a. [O Janis$_i$]$_1$ tu aresi tu eaftu tu$_i$ _$_1$.
the.NOM John.NOM 3SG.GEN please.3SG the.GEN self.GEN 3SG.M.GEN
'John$_i$ pleases himself$_i$.'

b. [Aftes i kolaceftices fotoɣrafies tu Jani$_i$]$_1$ tu$_i$
these.NOM the flattering.NOM.PL photographs.NOM.PL the.GEN John.GEN 3SG.M.GEN
aresun _$_1$.
please.3PL
'These flattering pictures of John$_i$ please him$_i$.'

As in English, in Greek A-movement can also reconstruct. In (42), a grammatical result only obtains if the raised subject is interpreted below the experiencer, see Angelopoulos and Sportiche (2022: ex.24) (for more Condition A reconstruction data, see Alexiadou and Anagnostopoulou 2002: 21):

(42) [O eaftos tu$_i$]$_1$ tu$_i$ fenete _$_1$ kondos s-ton kathrefti.
the.NOM self.NOM 3SG.M.GEN 3SG.M.GEN seem.3SG short.NOM in-the mirror
'His self seems to him to be short in the mirror.'

Thus, if CD involves A-movement, we expect a pattern where the clitic-doubled XP can be interpreted either in its purported landing site (around Spec,vP) or in its base-position (if it reconstructs).

Slightly different predictions arise if, as already mentioned in fn. 7, the A-movement operation postulated for Greek clitic doubling is assimilated to instances of overt A-movement such as object shift and (local A-)scrambling in other languages. This link has been entertained largely due to certain parallels with respect to the DPs eligible for doubling in doubling languages, and those eligible for object shift/scrambling in scrambling languages, see, e.g., Alexiadou and Anagnostopoulou (1997) (but recall from fn. 7 that there are also significant mismatches).

Before discussing the Greek binding data, it is therefore instructive to look at the semantic effects of object shift/scrambling. In what follows, we illustrate the relevant data on the basis of German scrambling, as it can reorder arguments. As shown in Haider (2010: 148f.), scrambling affects Condition A and Condition C (as well as variable binding/Weak Crossover, which we discuss in section 4.2 below).

The first pair shows that scrambling can feed Condition A/C (leading to grammaticality in the former and ungrammaticality in the latter; note that the assumed base order is DAT > ACC):

(43) a. dass wer [die Kandidaten$_i$]$_1$ einander$_i$ _$_1$ präsentierte
that someone the candidates.ACC each.other.DAT presented
'that someone presented the candidates$_i$ to each other$_i$'

b. *dass man [Peter$_i$]$_1$ [Peters$_i$ Vater] _$_1$ nicht übergeben hat
that one Peter.ACC Peter's father.DAT NEG surrendered has

'that one has not handed over Peter$_i$ to Peter$_i$'s father'

The second pair shows that scrambling can destroy binding relations, which in the case of Condition A leads to ungrammaticality and with Condition C to an alleviation; the assumed base order is ACC > PP and DAT > ACC, respectively):

(44) a. *dass man [nebeneinander$_i$]$_1$ die Kandidaten$_i$ _$_1$ setzte
that one next.to.each.other the candidates.ACC seated
'that someone seated the candidates$_i$ next to each other$_i$'

b. dass man [den Hut des Polizisten$_i$]$_1$ [dem Polizisten]$_i$/ihm$_i$ _$_1$ nicht
that one the.ACC hat the.GEN policeman the.DAT policeman/he.DAT NEG
übergeben hat
handed.over has
'that one didn't hand over the policeman$_i$'s hat to the policeman$_i$/him$_i$'

There is a clear generalization evident in the data just discussed: scrambled phrases are interpreted in their surface position for the purposes of binding. Crucially, unlike other types of A-movement (e.g., raising to subject discussed above), scrambled phrases usually do not reconstruct for binding. The same binding profile is reported for local scrambling in Hindi by Mahajan (1990: 34-36): scrambled XPs are interpreted in their surface position and do not reconstruct.

Thus, the alleged parallel with scrambling furnishes an expectation slightly different to the one yielded by the parallel with overt A-movement: while the raising data lead us to expect that, on an A-movement account of clitic doubling, the doubled DP should have the option of reconstructing, the scrambling data make us expect a binding profile for clitic doubling that differs from other types of A-movement in not allowing reconstruction at all. In what follows, we show that, on either parallel, the predictions of A-movement-based approaches are not borne out: doubled DPs are interpreted in their base positions.

In the following subsections, we will look at Condition C and Condition A configurations in Modern Greek. There will be two DPs within vP and only the structurally lower one will be clitic-doubled. Under A-movement or head-movement, we expect (part of) the doubled DP to actually occupy a structurally higher position, above the first DP, which should affect binding:

(45) cl$_i$-V [$_{DP2}$ ...$_i$]$_1$ ... [$_{DP1}$ ...] ... [$_{DP2}$ ...$_i$]$_1$

As we will see, there is no evidence for A-movement. Greek clitic doubling has the binding-theoretic profile neither of raising nor of scrambling. Rather, the doubled XPs behave as if they occupy their argument position.

3.3.2 Condition C

We first discuss the effect of CLD on Condition C, investigating two relevant configurations. The first configuration can be schematically depicted as in (46):

(46) cl$_i$ V [$_{DP1}$ R-Exp$_j$] [$_{DP2}$ X of R-Exp$_j$]$_i$

This configuration can be used to test the predictions of the A-movement approach: if DP2 underwent A-movement across DP1 (e.g., to Spec,vP), it should alleviate Condition C.[23] However, this prediction

[23] A reviewer suggests that matters may be more complex with respect to the interaction of Condition C and A-movement, citing the following example which arguably shows that passivization does not alleviate Condition C:

is not borne out; irrespective of whether the clitic is present or not, examples of this type are strongly ungrammatical. In (47a), this is shown for DP1 = IO and DP2 = DO; in (47b), it is shown for DP1 = SU and DP2 = IO. Note that the base order in Greek is SU > IO > DO, see, e.g., Anagnostopoulou (2003: 137-143):

(47) a. *Tin$_i$ eðikse i Maria [tu Jani]$_j$ [ti fotografia
3SG.F.ACC show.PST.3SG the.NOM Mary.NOM the.GEN John.GEN the.ACC picture.F.ACC
tu Jani$_j$]$_i$.
the.GEN John.GEN
'Mary showed John$_j$ the picture of John$_j$.'

b. *Tis$_i$ eðikse [o Janis]$_j$ [tis manas tu Jani$_j$]$_i$
3SG.GEN show.PST.3SG the.NOM John.NOM the.GEN mother.GEN the.GEN John.GEN
to vivlio.
the.ACC book.ACC
'John$_j$ showed John$_j$'s mother the book.'

These data thus argue against A-movement (while the head-movement approach correctly predicts no effect on binding given that the R-expression within the clitic-doubled phrase is not affected by head-movement).

The second relevant configuration is illustrated in (48):

(48) cl$_i$ V [$_{DP1}$ X of R-Exp$_j$] [$_{DP2}$ R-Exp$_j$]$_i$

With this configuration, we can test the predictions of both the A-movement- and the head-movement approach: if DP2 underwent A-movement across DP1 (to Spec,vP), it should cause a Condition C effect. We expect the same under a head-movement approach if the referential index is on the D-head of DP2 and this D-head moves across DP1. However, that is again not what we find: whether the clitic is present or

(i) *To vivlio [tu Joryu]$_i$ epistrafike [tu vlaka]$_i$.
the.NOM book.NOM the.GEN George.GEN return.PASS.PST.3SG the.GEN idiot.GEN
'George$_i$'s book was returned to the idiot$_i$.'

The example is indeed unacceptable for all our consultants and the native speaker author, but we are skeptical as to whether this example is probative. There are at least two confounds at play in (i): the epithet is undoubled (see footnote 25), and, additionally, the internal argument has been raised across an undoubled dative goal, yielding an intervention effect (see 4.3). Both effects are, of course, ameliorated under doubling of the epithet goal, as in (ii) below; the point is that there seems to be no way of showing that (i) is out because of a Condition C effect.

(ii) To vivlio [tu Joryu]$_i$ tu epistrafike [tu vlaka]$_i$.
the.NOM book.NOM the.GEN George.GEN 3SG.M.GEN return.PASS.PST.3SG the.GEN idiot.GEN
'George$_i$'s book was returned to the idiot$_i$.'

The reviewer notes in passing that there are speakers who do not require intervening datives to be doubled; they note separately that there exist speakers who allow undoubled epithets (see footnote 25). If there exist speakers at the intersection of these two sets, for whom it is additionally the case that (i) is ungrammatical, then indeed, for those speakers, this example would indeed constitute a case where passivization does not alleviate Condition C. Since we lack speakers with either property (much less both) in our consultant pool, we are unable to draw any conclusions here.

The reviewer is absolutely correct to note that there exist cases in the language where the interaction between Condition C and reconstruction seems more complex, but in all such cases we are aware of, there are independent factors at play; e.g., according to Anagnostopoulou (2003: 210), the subjects of (some) experiencer predicates obligatorily reconstruct. At the same time, on p. 334, fn. 70, Anagnostopoulou lists passive and unaccusative examples where the fronted subject does not reconstruct for Condition C.

In any case, as the reviewer themselves note, even if there turned out to be clear cases illustrating that A-movement does not always alleviate Condition C, our argument would still hold, not the least since the next set of examples (based on the configuration in (48)) is immune to such possible issues.

not, such examples are well-formed. In (49a), this is shown for DP1 = IO and DP2 = DO, while in (49b), it is shown for DP1 = subject and DP2 = DO:[24,25]

(49) a. (Ton$_i$) eðikse i Maria [tis manas tu
3SG.M.ACC show.PST.3SG the.NOM Mary.NOM the.GEN mother.GEN the.GEN
Joryaki$_i$] [ton Joryaki]$_i$.
little.George.GEN the.ACC little.George.ACC
'Mary showed little George$_i$ to little George$_i$'s mother.' (context e.g. in a neonatal unit)

b. (Ton$_i$) koroiðepse [i mitera tu Petru$_i$] [ton Petro]$_i$.
3SG.M.ACC mock.PST.3SG the.NOM mother.NOM the.GEN Peter.GEN the.ACC Peter.ACC
'Peter$_i$'s mother made fun of Peter$_i$.'

Of course, if A-movement can undergo total reconstruction, the data in (49) do not, in principle, argue against A-movement.[26] But given the binding profile of local scrambling in other languages, viz., the absence of reconstruction for binding, the lack of interaction between clitic doubling and Condition C would still be rather unexpected if clitic doubling is essentially an abstract version of scrambling. Together with the data in (48) and thus the absence of any positive evidence for A-movement, a different and much simpler generalization emerges: clitic doubled DPs occupy their base position and do not undergo A-movement or head-movement. A-movement-based theories could, of course, postulate in the face of this data that, unlike virtually all well-understood instances of A-movement, the A-movement step involved in doubling always reconstructs; but the burden of proof would rest with this assertion, not with what seems to be the null hypothesis given the data just examined, namely, that clitic doubling is found to pattern differently from A-movement precisely because it does not involve A-movement.

Note that the binding data do not argue against the big-DP hypothesis as long as the doubled DP does not move and the D-head is not semantically interpreted (viz., is not subject to Condition B).

As a final point, the data in the first configuration provide further evidence against the dislocation theory of clitic doubling: the doubled DPs clearly behave like DPs in their argument position rather than like DPs base-generated outside the c-command domain of the first DP (recall the discussion in section 2.1); under

[24]According to Anagnostopoulou (2003: 200–202), a bare clitic for an animate DO in the presence of an undoubled IO leads to ungrammaticality. Our examples are different in that the DO is clitic-doubled, but Anagnostopoulou's examples are grammatical for the native-speaker author as well.

[25]The Condition C judgments in this subsection can be facilitated by replacing one of the R-expressions with an epithet, as in (i):

(i) *(Ton) aɣapai i mitera tu Petru$_i$ ton bastarðo$_i$.
3SG.M.ACC love.3SG the.NOM mother.NOM the.GEN Peter.GEN the.ACC bastard.ACC
'Peter$_i$'s mother loves the bastard$_i$.'

Note incidentally that, given their anaphoric nature, epithets require clitic-doubling (Anagnostopoulou 2017a: 25). Importantly, A-movement-based theories of CLD would again incorrectly predict a Condition C violation to arise in examples like (i).

A reviewer suggests that doubling of epithets is not obligatory for all speakers of Greek. We have no reason to dispute this claim, but note that both the native speaker author and all our consultants find undoubled epithets strongly ungrammatical, in line with the judgments in Anagnostopoulou (2017a: 25). How the facts presented here differ for the grammars that allow undoubled epithets is a matter we must leave for future work to elucidate.

[26]Note in this context, though, that the possibility of reconstruction seems to be restricted even in English raising. The following example from Lebeaux (2009: 23) suggests that optional reconstruction to avoid a Condition C violation is not (always) readily available (Lebeaux provides two question marks only given that Condition C effects between two R-expressions are often found to be weaker than between pronoun and R-expression):

(i) ??John$_i$ seems to John$_i$'s mother to be expected to win.

If total reconstruction were an option, (i) should be just as grammatical as *It seems to John$_i$'s mother than John$_i$ is expected to win.*

dislocation, the DO/IO-clitic would be the argument and no Condition C effect would be expected given that the doubled (and thus dislocated) DO/IO containing 'John' would be outside the c-command domain of 'John'.[27]

3.3.3 Condition A

The previous subsection established that in Greek, CLD fails to affect binding for the purposes of Condition C. This subsection does the same for Condition A, thereby furthering the generality of our binding-based argument against movement-based approaches to Greek CLD.

In what follows, we investiate the effect of CLD on Condition A in two environments. The first one involves the IO as an anaphor and a clitic doubled DO, schematically represented in (50):

(50) cl_i V SU $[_{\text{DP1-IO}}$ $\text{anaphor}_j]$ $[_{\text{DP2-DO}}$ $\text{R-Exp}_j]_i$

The second configuration involves a subject anaphor and a clitic doubled DO, as represented in (51):

(51) cl_i V $[_{\text{DP1-SU}}$ $\text{anaphor}_j]$ $[_{\text{DP2-DO}}$ $\text{R-Exp}_j]_i$

We begin our investigation with reflexive binding, before moving on to the understudied Greek reciprocal pronoun and, finally, the periphrastic reciprocal construction.

Consider firstly the Greek reflexive anaphor. (52) is a baseline example showing that, in a ditransitive, a DO reflexive can be bound by an IO antecedent, as expected given the c-command relations outlined above. Note that this example also shows that the Greek reflexive is not subject-oriented.[28]

(52) Eðikse i Maria tu Yiani_i ton eafto tu_i (ston
show.PST.3SG the.NOM Mary.NOM the.GEN John.GEN the.ACC self.ACC 3SG.M.GEN in.the
kaθrefti).
mirror
'Mary showed John_i himself_i in the mirror.'

[27]The effect of clitic doubling on Condition C was previously discussed in Anagnostopoulou (1994: 126-129), Alexiadou and Anagnostopoulou (1997) and Angelopoulos (2019). While Anagnostopoulou (1994) finds no evidence for an effect on Condition C effects, Alexiadou and Anagnostopoulou (1997) come to the opposite conclusion. Angelopoulos (2019: 10–12) shows that the discussion in Alexiadou and Anagnostopoulou (1997) is confounded. His own data (his ex. 23) show that a clitic doubled DO is interpreted below a bare clitic IO (he does not discuss the effect of doubling the DO in the presence of a full DP-IO as we do). However, there are reasons to believe that a bare clitic is interpreted in a higher position than a doubled DP (roughly close to its surface position, see also Angelopoulos and Sportiche 2021). For instance, the examples in (49) become ungrammatical if the DO is a bare clitic. Consequently, the data in Angelopoulos (2019) do not argue against A-movement per se. This is why we use full DPs in our examples.

Zubizarreta (1998: 109, 113, 185, fn.16) also discusses Condition C under cliticization; her Spanish data suggest that the accusative clitic is interpreted (roughly) in its surface position (right above the base-position of the external argument), while the dative clitic is interpreted in a lower position. Most relevant for us is the observation on p. 185., fn. 16, ex. (iv) where a clitic-doubled strong pronoun occurs after a postverbal subject that contains an R-expression co-indexed with the clitic/strong pronoun. While the non-doubled version, viz., bare cliticization, is ungrammatical, suggesting that the clitic is interpreted above the subject, the clitic-doubled version is grammatical. Zubizarreta relates the effect to emphasis, but under our analysis, this simply follows from the fact that there is no movement under doubling and what is interpreted is the strong pronoun, not the clitic pronoun.

[28]See Iatridou (1988) and Anagnostopoulou and Everaert (1999) for more details on the Greek anaphor, and Angelopoulos and Sportiche (2022) for the most recent and most careful treatment of Greek reflexives. We construct our examples in accordance with the suggestions of the latter work to ensure that we are dealing with a proper reflexive. In particular, the Greek reflexive can have a non-anaphoric usage paraphrasable as 'his abstract self/his psyche' (see Angelopoulos & Sportiche 2022: 3-4); like Angelopoulos and Sportiche, we use *in the mirror* to rule out this usage and isolate the properly reflexive usage. Note that in all binding examples in this section we use postverbal subjects to ensure that the IO has remained *v*P-internal; importantly, the judgments remain the same when we use preverbal subjects.

Given (52), we expect that an IO reflexive co-indexed with the DO will fail to pass Condition A. This is indeed what we find (see also Michelioudakis 2011: 81):

(53) *Eðikse i Maria tu eaftu tu$_i$ ton Yiani$_i$ (ston
show.PST.3SG the.NOM Mary.NOM the.GEN self.GEN 3SG.M.GEN the.ACC John.ACC in.the
kaθrefti).
mirror
*'Mary showed himself$_i$ John$_i$ in the mirror.'

Consider now once again the predictions made by A-movement approaches to CLD: we should be able to repair (53) by doubling the DO, thereby raising it to a position c-commanding the reflexive. This prediction is not borne out:

(54) ?*Ton eðikse i Maria tu eaftu tu$_i$ ton Yiani$_i$
3SG.M.ACC show.PST.3SG the.NOM Mary.NOM the.GEN self.GEN 3SG.M.GEN the.ACC John.ACC
(ston kaθrefti).
in.the mirror
*'Mary showed himself$_i$ John$_i$ in the mirror.'

Once again, to ensure that (54) really does speak against A-movement-based accounts, we must eliminate possible confounds.

One such confound is found in the claim that the Greek reflexive cannot be marked with genitive (Anagnostopoulou & Everaert 1999: 111).[29] This does not seem to be the case for the grammars of the native speaker author and our consultants, who readily accept examples like (55), and spotaneously produced similar ones. Additionally, Angelopoulos and Sportiche (2022: section 4.1) also provide further empirical evidence that dative reflexives are grammatical, explicitly controlling for the reified non-reflexive usage of the anaphor by predicating concrete properties of the reflexive, see (56).

(55) Afu kerasa tus kalezmenus, evala ke tu eaftu mu
after treat.PST.1SG the.ACC.PL guest.ACC.PL put.PST.1SG and the.GEN self.GEN 1SG.M.GEN
ena poto.
one.ACC drink.ACC
'After pouring the guests a drink, I$_i$ poured myself$_i$ a drink as well.'

(56) Erikse mia teleftea matia tu eaftu tis ston kaθrefti.
give.PST.3SG one.ACC last.ACC look.ACC the.GEN self.GEN 3SG.F.GEN in.the mirror
'S/he gave herself one last look in the mirror.' (based on Angelopoulos and Sportiche 2022: (13)

The descriptive grammar of Holton et al. (2012) also lists genitive IO reflexives as grammatical, noting however that they appear 'more often in a prepositional phrase'; genitive goals being the marked alternative to PP goals in Greek in general, this is not surprising.

[29] This claim is based on the following pair of examples (judgments from the original):

(i) a. O Janis$_i$ eðikse ti fotoɣrafia ston eafto tu$_i$.
the.NOM John.NOM show.PST.3SG the.ACC.PLphotograph.ACC to.the.ACC self.ACC 3SG.M.GEN
b. *O Janis$_i$ (tu) eðikse tu eaftu tu$_i$ tin fotoɣrafia.
the.NOM John.NOM 3SG.M.GEN show.PST.3SG the.GEN self.GEN 3SG.M.GEN the.ACC photograph.ACC
'John$_i$ showed himself$_i$ the picture.' (Anagnostopoulou & Everaert 1999: 111)

For the native speaker author, (ib) is grammatical but marked relative to (ia).

(57) Eðosa tu eaftu mu / ston eafto mu kurajo ke
give.PST.1SG the.GEN self.GEN 1SG.M.GEN to.the.ACC self.ACC 1SG.M.GEN courage.ACC and
proxorisa.
proceed.PST.1SG
'I$_i$ gave myself$_i$ courage and moved on.'

Holton et al. (2012: 582)

Thus, there is, in our view, no reason to question the validity of our argument based on the possible markedness of genitive/dative reflexives.

To further buttress our claim, we would like to point out that one can show the same lack of effect of clitic doubling on binding by using transitive verbs with the anaphor as the *nominative* subject and the antecedent as a clitic doubled direct object, the second configuration introduced above (see also Angelopoulos and Sportiche 2022: ex. 43b)

(58) *Tin iðe o eaftos tis$_i$ ti Maria$_i$ ston kaθrefti.
3SG.ACC.F see.PST.3SG the.NOM self.NOM 3SG.F.GEN the.ACC Mary.ACC in.the mirror
'Herself$_i$ saw Mary$_i$ in the mirror.'

If there were A-movement of the DO across the nominative, we would expect such examples to be well-formed, contrary to fact.[30] Since nominative anaphors are unquestionably grammatical in Greek, we conclude that there are no empirical reasons to question our argument based on Condition A.

Examples like (58) thus show that CLD does not yield new binding possibilities for an IO reflexive: This example not only argues against A-movement approaches; under the assumption that the referential index is on D, the head-movement approach also incorrectly predicts clitic doubling to feed binding in this configuration.

(59) shows the other side of the same coin: clitic doubling the anaphor does not cause it to raise above its antecedent and violate Condition A:[31]

(59) Ton eðikse i Maria tu Yiani$_i$ ton eafto tu$_i$
3SG.M.ACC show.PST.3SG the.NOM Mary.NOM the.GEN John.GEN the.ACC self.ACC 3SG.M.GEN
(ston kaθrefti).
in.the mirror
'Mary showed John$_i$ himself$_i$ in the mirror.'

Of course, if the kind of A-movement involved in clitic doubling can totally reconstruct, this fact is not problematic. We would like to stress again, though, that this would be different from the binding profile of local scrambling in languages like German, which usually does not reconstruct for binding. Together with the lack of evidence that doubling leads to new binding possibilities, we arrive at the same generalization as for Condition C: The doubled DP behaves as if it occupies its base position. This us unexpected under an A-movement-based account of CLD.

Additional evidence against A-movement in CLD comes from the Greek reciprocal (Paparounas & Salz-

[30] Angelopoulos and Sportiche (2022) hint at a possible explanation for the ungrammaticality of (58) by postulating a movement account where the antecedent is generated as an argument of *self* and moves away to its theta-position, although they argue against movement accounts earlier in the paper given that *self* occurs inside adjuncts. Note also that this type of movement account is incompatible quite generally with cases where A-movement leads to new binding possibilities as in (40a), (41a).

[31] While doubling of anaphors is judged grammatical by the native speaker author, we should point out that this is a somewhat contested issue, see Baker and Kramer (2018: 1077) vs. Angelopoulos (2019: 15) and Angelopoulos and Sportiche (2021: section 5.3.2), Angelopoulos and Sportiche (2022: section 7).

mann under review), which consists of two elements, the distributor *the one* and the reciprocator*the other* (cf. English *one another*, and cf. apparently similar constructions in Italian Belletti 1982 and Icelandic Sigurðsson et al. 2022). Both parts are always morphologically singular. The case of *the one* matches the case of the antecedent DP (NOM in (60)), while *the other* is marked for the case of the structural position of the reciprocal itself (ACC in (60); despite appearances in what follows, the two elements do not form a constituent, see (69) below):

(60) Iðame o enas ton alo.
see.PST.1PL the.NOM one.NOM the.ACC other.ACC
'We$_i$ saw one another$_i$.'

Both parts agree in gender with the plural antecedent:

(61) a. I monaxi$_i$ stirizun o enas ton alo$_i$.
the.NOM monk.PL.NOM support.3PL the.M.NOM one.M.NOM the.M.ACC other.M.ACC
'The monks$_i$ support each other$_i$.'
b. I kaloɣries$_i$ stirizun i mia tin ali$_i$.
the.NOM nun.PL.NOM support.3PL the.F.NOM one.F.NOM the.F.ACC other.F.ACC
'The nuns$_i$ support each other$_i$.'

the one must always be structurally higher than/precede *the other* (62a), and the whole construction must be c-commanded by the plural antecedent (62b), (63); cf. Lapata (1998).

(62) a. *I monaxi$_i$ stirizun o alos$_i$ ton ena.
the.NOM monk.PL.NOM support.3PL the.M.NOM other.M.NOM the.M.ACC one.M.ACC
b. *O enas ton alo$_i$ stirizi tus monaxus$_i$.
the.M.NOM one.M.NOM the.M.ACC other.M.ACC support.3SG the.ACC monk.PL.ACC
'*Each other$_i$ supports the monks$_i$.'

(63) [I mentores [ton fititon]$_i$]$_j$ stirizun o enas ton
the.NOM mentor.PL.NOM the.GEN student.PL.GEN support.3PL the.M.NOM one.M.NOM the.M.ACC
alo$_{j/*i}$.
other.M.ACC
'[[The students']$_i$ mentors]$_j$ support [each other]$_{j/*i}$.'

Additionally, the usual restrictions on binding domains hold: the reciprocal requires a local antecedent (the domain roughly corresponding to the smallest XP containing the anaphor and a distinct subject).

(64) a. *[I Maria ke o Petros]$_i$ nomizun oti o Janis$_j$ aɣapai
the.NOM Mary.NOM and the.NOM Peter.NOM think.3PL COMP the.NOM John.NOM love.3SG
[o enas ton alo]$_i$.
the.NOM one.NOM the.ACC other.ACC
'[Mary and Peter]$_i$ think that John loves each other$_i$.'
b. [I Maria ke o Petros]$_i$ nomizun oti [o Janis ke
the.NOM Mary.NOM and the.NOM Peter.NOM think.3PL COMP the.NOM John.NOM and
i Ana]$_j$ aɣapane o enas ton alo$_{j/*i}$.
the.NOM Anna.NOM love.3PL the.NOM one.NOM the.ACC other.ACC
'[Mary and Peter]$_i$ think that [John and Ana]$_j$ love each other$_{j/*i}$.'

In a ditransitive, the reciprocal can freely occur as IO; there is no restriction against marking a reciprocal genitive (65):[32]

(65) Eðiksan i fitites$_i$ o enas tu alu$_i$ ta ðomatia
show.PST.3PL the.NOM students.NOM the.NOM one.NOM the.GEN other.GEN the.ACC rooms.ACC
tus
3PL.GEN
'The students$_i$ showed each other$_i$ their rooms.'

The relevant example to construct would thus involve a reciprocal IO co-indexed with the DO. Since the IO c-commands the DO in Greek (Anagnostopoulou 2003: 137-143), we expect the relevant example to be ungrammatical; this is indeed what we find:

(66) *Sistise o Janis ton ena tu alu$_i$ [tus kaθijites
introduce.PST.3SG the.NOM John.NOM the.ACC one.ACC the.GEN other.GEN the professor.PL.ACC
tu]$_i$.
his
'John introduced his professors$_i$ to each other$_i$.'

Note that (66) is ungrammatical not because of any restrictions on the position of the reciprocal itself (cf. (65)), but for binding-theoretic reasons, namely, Condition A.

Consider now the prediction made by DP-movement-based approaches to CLD. If CLD in Greek involved A-movement of the doubled DP to a peripheral position in the vP, it should be possible, all things being equal, to rescue examples like (66) by CLD. This is so because, under a movement-based approach, clitic doubling the DO should raise it to a position that c-commands the reciprocal IO. Crucially, this prediction is not borne out; the doubled version of (66) is (67), and the two examples are equally ungrammatical.

(67) *Tus sistise o Janis ton ena tu alu$_i$ [tus
3PL.M.ACC introduce.PST.3SG the.NOM John.NOM the.ACC one.ACC the.GEN other.GEN the.ACC
kaθijites tu]$_i$.
professor.PL.ACC his
'John introduced his professors$_i$ to each other$_i$.'

The ungrammaticality of (67) cannot be attributed to a hidden third factor. For example, it is not the case that the reciprocal is subject-oriented (see footnote 32); it is also not the case that the reciprocal cannot be marked genitive (65).[33]

[32]Notice that the reciprocal is not subject-oriented (i), and that it can occur within PPs (ii):

(i) Sistisa tus fitites$_i$ ton ena ston alo$_i$.
introduce.PST.1SG the.ACC students.ACC the.ACC one.ACC to.the other.ACC
'I introduced the students$_i$ to each other$_i$.'

(ii) I monaxi$_i$ stekonde o enas ðipla ston alo$_i$.
the.PL.NOM monk.PL.NOM stand.3PL the.NOM one.NOM next to.the.ACC other.ACC
'The monks$_i$ are standing next to each other$_i$.'

[33]A possible analysis of the reciprocal would involve the antecedent being merged with the reciprocal, in a small clause structure, with the antecedent subsequently vacating this constituent. On this analysis, (67) would be ungrammatical for reasons relating to movement; presumably, *ton ena* would have to be stranded in a lower position rather than in this position above the IO. In fact, however, there is little reason to posit this movement-based account in the first place: reciprocals freely occur in PPs (see footnote

The failure to create new binding possibilities can also be shown in the second configuration introduced at the beginning with the reciprocal as the subject and the antecedent as a direct object. Again, the clitic doubled version in (68b) is just as ungrammatical as the undoubled baseline in (68a), pointing towards the absence of A-movement. Note that the ungrammaticality of (68a) cannot be attributed to some restriction on case marking, as *the one* can freely be nominative as in (69).

(68) a. *Iðe / iðan ton ena o alos$_i$ tus monaxus$_i$.
see.PST.3SG see.PST.3PL the.ACC one.ACC the.NOM other.NOM the.ACC.PL monk.ACC.PL
Intended: '*Each other$_i$ saw the monks$_i$.'

b. *Tus iðe / iðan ton ena o alos$_i$ tus monaxus$_i$.
3PL.ACC see.PST.3SG see.PST.3PL the.ACC one.ACC the.NOM other.NOM the.ACC.PL monk.ACC.PL

(69) I monaxi$_i$ pistevun o enas oti o alos$_i$ ine eksipnos.
the.NOM.PL monk.NOM.PL think.3PL the.NOM one.NOM COMP the.NOM other.NOM be.3SG smart.NOM
'The monks$_i$ think that each other$_i$ is smart.'

The data thus far show that CLD of a DO cannot yield new binding possibilities for a SU/IO reciprocal, arguing against both the A-movement approach and the head-movement approach (under the assumption that the referential index of the DO is on D). Unfortunately, it cannot be shown that CLD fails to destroy binding configurations with reciprocals because the reciprocal cannot be clitic-doubled.

Alongside the split-case reciprocal discussed in the previous section, Greek has a distinct reciprocal construction whereby the distributor 'the one' appears in an A-position; call this construction the A-reciprocal.

(70) Se afto to monastiri, [o enas monaxos] stirizi [ton alo].
in this the monastery, the.NOM one.NOM monk.NOM supports the.ACC other.ACC
'In this monastery, one monk supports the other.'

The A-reciprocal resembles familiar binding constructions in obeying a c-command requirement: *the other* must be c-commanded by (the constituent containing) *the one* for a reciprocal interpretation to emerge.

(71) Se afto to tmima, [o mentoras [tu enos fititi]$_i$]$_j$ stirizi [ton alo]$_{j/*i}$.
in this the department the.NOM mentor.NOM the.GEN one.GEN student.GEN support.3SG the.ACC other.ACC
'In this department, each student's mentor supports other mentors/*students.'

However, this construction is different from the *bona fide* reciprocal pronoun in that, as can be seen in (70) and (71), there is no plurality requirement on its licensing. Moreover, the A-reciprocal is not subject to the

32) and in co-ordinations (i), suggesting that they do not involve movement of the antecedent.

(i) An oli mas forusame maska, θa prostatevame o enas ton alo ke ton eafto mas
if all.NOM our wear.PST.1PL mask.ACC IRR protect.PST.1PL the.NOM one.NOM the.ACC other.ACC and the.ACC self.ACC 1PL.GEN
'If we all wore a mask, we would protect each other and ourselves.' https://tinyurl.com/hctxty33, accessed 12/06/2021

locality restrictions on syntactic A-binding (in that *o alos* can be an embedded object):

(72) Se afto to monastiri, o enas monaxos pistevi oti o iɣumenos
in this the monastery the.NOM one.NOM monk.NOM believe.3SG COMP the.NOM abbot.NOM
protimai ton alo.
prefer.3SG the.ACC other.ACC
'In this monastery, each monk believes that the abbot prefers the other.'

It thus seems likely that the A-reciprocal is more akin to variable binding than to syntactic anaphor binding (the properties of reciprocal constructions of this kind, including the English translation of (72), itself grammatical, are understudied; see Jackendoff 1990: 435 and references cited there for data from English). However, since the crucial ingredients involved are binding under c-command from an A-position, this construction still allows us to test the predictions of A-movement-based theories of CLD.

In Anagnostopoulou (2003: 140), examples of the following form using the A-reciprocal are used to argue that Greek IOs asymmetrically c-command DOs:

(73) a. Estile i Maria [tis mias miteras] [to peði
send.PST.3SG the.NOM Mary.NOM the.GEN one.GEN mother.GEN the.ACC child.ACC
tis alis].
the.GEN other.GEN
'Mary sent each mother the other's child'

b. *Estile i Maria [tis miteras tu alu] [to ena
send.PST.3SG the.NOM Mary.NOM the.GEN mother.GEN the.Gen other.GEN the.ACC one
peði].
child.ACC
*'Mary sent the other's mother each child.'[34]

Importantly for our purposes, the CLD counterpart of the grammatical (73a) is itself grammatical:

(74) To estile i Maria [tis mias miteras] [to peði
3SG.N send.PST.3SG the.NOM Mary.NOM the.GEN one.GEN mother.GEN the.ACC child.ACC
tis alis].
the.GEN other.GEN
'Mary sent each mother the other's child'

The grammaticality of (74) is unexpected if there is A-movement of the bound element across its binder as it would *destroy* the correct c-command relationships that the pre-movement structure supplies. Of course, as discussed above, this objection only holds if A-movement does not obligatorily reconstruct; again, however, if A-movement did obligatorily reconstruct, the alleged parallel with scrambling would not obtain in the first place. Unfortunately, it cannot be shown that CLD fails to create new binding possibilities with the A-reciprocal because doubling of the distributor *o enas* is independently ruled out.

[34] (73b) is grammatical on an irrelevant, non-reciprocal interpretation, namely 'I sent the other person's mother one of the children'. Note also that the ungrammaticality of (73b) cannot be attributed to the inability of the reciprocal to be genitive, witness the following example:

(i) Se afto to monastiri, o enas monaxos ðixni tu alu ta vivlia.
in this the monastery the one.NOM monk.NOM show.3SG the.GEN other.GEN the.ACC book.PL.ACC
'In this monastery, each monk shows the other the books.'

In summary, based on data from reflexive binding, we have argued that CLD neither destroys binding possibilities nor salvages ungrammatical binding configurations. This conclusion was supported with data from reciprocal constructions: the reciprocal pronoun shows that CLD cannot create new binding possibilities, and the A-reciprocal shows that it cannot destroy existing ones. Taken together with the evidence from Condition C discussed in the previous subsection, the considerations in this subsection suggest that the empirical picture from binding is precisely the opposite to what A movement-based analyses (and, to some extent also head-movement-based analyses) of CLD would predict: rather than having the binding profile of raising constructions or local scrambling, the doubled DPs' binding behavior suggests that they occupy their argument position. This is, of course, expected under an account that solely relies on Agree.

Note that as shown by the contrast in (75) from den Dikken (1995: 348), while Agree can copy phi-features at a distance, it does not affect binding:

(75) a. [Some applicants$_i$] seem to each other$_i$ to be $\_\__1$ eligible for the job.
b. *There seem to each other$_i$ to be some applicants$_i$ eligible for the job.

4 Challenges for an Agree-based account

In this section, we will address possible challenges for an approach to CLD purely based on Agree. This involves (i) the distribution of clitic doubling, which is restricted to DPs with certain semantic/pragmatic properties and (ii) two observations from the literature that seem to support a movement analysis of CLD. The first observation is that CLD can alleviate Weak Crossover and the second that CLD can void intervention effects. We will show below that there are straightforward ways of restricting clitic doubling to certain DPs and the observations ostensibly supporting movement can actually be reanalyzed, and, upon closer inspection, in fact do not support a movement approach.

4.1 Distribution of clitic doubling

As in other languages, CLD in Modern Greek is restricted in its distribution, viz., not every DP can be clitic-doubled. As an approximation, clitic doubling is most likely with DPs high on the referentiality/topicality scale, viz., DPs that are topical, given/D-linked, definite, specific etc. (see Anagnostopoulou 2017a). However, it is fair to say that the precise restrictions are still poorly understood. While doubling usually targets definite DPs, there are, as shown, e.g., in Angelopoulos (2019), clear cases where what is doubled is definitely not high on the referentiality/topicality scale: This involves quantified DPs, non-specific indefinites, and even focused experiencers.[35] In addition, clitic doubling is hardly ever obligatory even if a DP is eligible

[35]For refinements concerning doubled definite DPs, see Angelopoulos (2019: l7f.).
Further exceptions to the topicality/referentiality generalization are the doubling of weak definites, (i) and (formally definite) idiom chunks, (ii):

(i) A: 'Mary usually takes the car to work, right? She's not much of a bus-rider'.
B: Oxi, panda **to** perni to **leoforio**.
no always 3.SG.N take.3SG the bus.N.ACC
'No, she always takes the bus.'

(ii) doubling of idiomatic NPs; 'to bite the iron plate' = 'to fall in love'
(Ti) dagose ti **lamarina**.
3SG.F bite.PST.3SG the.F.ACC iron.plate.F.ACC
'S/he fell in love.'

for doubling.[36] We will not attempt to contribute to this debate here but instead focus on the consequences for a pure Agree-approach. Clearly, without further restrictions, an Agree-approach without movement predicts clitic doubling with any DP to be possible that carries phi-features.

At first sight, things seem different with approaches involving A-movement. Under such an approach, see, e.g., Harizanov (2014), Kramer (2014), Angelopoulos (2019), one can assume that the semantic/pragmatic features of the DP govern object shift. If object shift applies, the DP gets close enough to undergo rebracketing (Kramer 2014, Harizanov 2014) or Agree (Angelopoulos 2019) and a clitic results. Without such movement, rebracketing/Agree is impossible and no clitic obtains (presupposing strict locality conditions on the relevant operations). However, since the parallel between object shift/scrambling and CLD is far from perfect (see footnote 7 and much discussion above) and since doubling can also involve non-specific indefinites, as mentioned above, it is unclear how to regulate the distribution of CLD by means of movement: movement would also have to apply to DPs that would normally not undergo object shift (viz., that have the 'wrong' semantic features). Conversely, given the optionality of clitic doubling, even DPs with the required semantic properties would fail to undergo object shift. Because of these dissociations, the distribution of clitic doubling also constitutes a challenge for A-movement approaches.[37]

A syntactic implementation of the distribution of CLD that is compatible with a pure Agree-approach is the licensing approach to Differential Object Marking by Kalin (2018, 2019). The underlying idea is that in languages with DOM, only DPs with certain features require licensing. DPs are licensed by means of Agree. This can be understood as a generalization of the Person Licensing Condition for local person arguments first proposed in Béjar and Řezáč (2003). The technical implementation in Kalin (2019) involves associating the features that require licensing, e.g, [specific], with a derivational time bomb [💣], which unless defused (viz., agreed with) causes the derivation to crash. The advantage of such an approach to DOM is that it is compatible with DOM-patterns that involve agreement rather than case and crucially need not rely on movement (in the language studied by Kalin there is no evidence that DOM-marked DPs occupy syntactically higher positions than unmarked DPs). While the Agree probe on T is taken to be obligatory, an economy principle restricts the presence of a secondary licensor, viz., an Agree probe on v, such that such a licensor is only merged if necessary for convergence.

This logic can be directly extended to clitic doubling, which is thus treated as an instance of DOM. Concretely, objects with certain semantic/pragmatic properties, e.g., [def, spec etc.] will carry a derivational time-bomb. A derivation will only converge if there is a secondary licensor, viz., an Agree probe that agrees with this object DP. If a DP has no such feature, no licensing via Agree is necessary and a secondary licensor is not possible and thus no CLD arises. Note that such an approach does not intend to provide a deeper understanding of the distribution of CLD and has nothing to say about the optionality other than that the time-bomb is optional in some cases. But if the distribution of CLD is to be captured by syntactic means without movement, this is a straightforward solution (another non-movement alternative to capture the distribution is proposed in Baker and Kramer 2018, where CLD of certain DPs is blocked because they undergo QR across the interpretable clitic and thus would lead to Weak Crossover).

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[36] Apart from the doubling of epithets mentioned above and possibly the intervention configurations discussed below; if pure cliticization is doubling of *pro* (Angelopoulos & Sportiche 2021; Preminger 2019), then bare cliticization will also have to be an instance of obligatory doubling.

[37] Capturing the distribution is also a challenge for the big-DP-approach; it seems that it has to stipulate restrictions on which DPs the clitic can merge with. It is also not quite clear how the restrictions can be captured under a head-movement approach, unless it is also combined with A-movement as suggested in Preminger (2019: 13) (with head-movement taking place from an object-shift position).

4.2 Weak Crossover

We now turn to the first observation that has been taken to support a movement approach to CLD, viz., the alleviation of Weak Crossover (WCO) effects. As observed in Anagnostopoulou (2003: 207f.), a configuration that violates WCO on the surface (because the constituent containing the bound pronoun c-commands the quantified DP) becomes grammatical once the quantified DP undergoes clitic-doubling (our example differs from those used in Anagnostopoulou 2003 to avoid issues pertaining to optional subject reconstruction):

(76) *(To$_i$) eðiksa [tis miteras tu$_i$] [to kaθe peði]$_i$ (ston
3SG.N.ACC show.PST.1SG the.GEN mother.GEN 3SG.N.GEN the.ACC every child.ACC in.the
kaθrefti).
mirror
'I showed every child$_i$ to his$_i$ mother in the mirror.'

Given that A-movement is known to alleviate WCO (cf. *Every student$_i$ seems to his$_i$ advisor to be brilliant* and the Greek data in Angelopoulos and Sportiche 2022: ex. 43/44), the alleviation in (76) is expected if the doubled DO undergoes A-movement across the IO (e.g., to Spec,vP). The facts potentially also follow under the head-movement approach if the relevant quantificational information is part of the D-head. The structure of Greek QPs raises questions here, though, since they are headed by a definite determiner (see Angelopoulos 2019: 15 for arguments that the head-movement approach cannot account for WCO alleviation). Under an account where doubling solely arises via Agree, however, this kind of interaction is *prima facie* unexpected: in the absence of movement, it is unclear why CLD ostensibly repairs an illicit quantifier-variable configuration.

However, the empirical situation is considerably subtler. For one, doubling of DPs containing a bound pronoun is not ruled out (*pace* Anagnostopoulou 2003: 20-21, Baker and Kramer 2018: 1077):

(77) Tin$_j$ eðiksa [kaθe peðju]$_i$ [ti mitera tu$_i$]$_j$ (ston kaθrefti).
3SG.F.ACC show.PST.1SG every.GEN child.N.GEN the.ACC mother.ACC 3SG.N.GEN in.the mirror
'I showed every child$_i$ her/his$_i$ mother in the mirror.'

This shows that doubling fails to destroy binding relationships, contrary to what we would expect if the DO moved across the IO: the bound pronoun would be removed from the c-command domain of the QP. Conversely, the facts are compatible with the head-movement approach given that the bound pronoun is not the head of the DP and thus would remain *in situ*.

Angelopoulos (2019: 7) also provides an example where pronominal binding by an IO is possible even though the DO is clitic-doubled. He comes to a very different conclusion, though, namely that A-movement can undergo total reconstruction (and argues against the claims in Alexiadou and Anagnostopoulou 1997: 144-146 that such reconstruction is impossible). As discussed above w.r.t. Condition A and C, while A-movement can in principle reconstruct (also for variable binding, see Angelopoulos and Sportiche 2022: ex. 32b) and the data in (77) are thus in principle compatible with an A-movement approach, it should be pointed out that local scrambling in other languages does not, see, e.g., Haider (2010: 150) on German:

(78) dass man [seinen$_i$ Vorgesetzten]$_1$ jedem$_{*/??i}$ _$_1$ ankündigte
that one his boss.ACC everyone.DAT announced
'that one announced everyone$_i$ his$_i$ boss'

At the very least, the binding profile of CLD is again different from scrambling, casting doubts on attempts

to link the two phenomena. Furthermore, since we believe that all evidence in favor of A-movement can be insightfully reanalyzed (see this section on WCO and intervention effects in section 4.3), a more coherent account is possible if there is never any A-movement in CLD in the first place.

We will now proceed to propose an alternative to account for the influence of CLD on WCO that is compatible with a pure Agree approach. It seems likely that CLD repairs WCO not by virtue of movement, but because of its information-structural correlates, which have been independently shown to repair WCO effects (see Baker and Kramer 2018: 1075–1080 for a similar perspective.)

It has been known for quite some time that Weak Crossover can be alleviated under certain information structural conditions, see Safir (2017: 23ff.) for a recent overview and references. Detailed discussion can be found in Eilam (2011: 150ff), where it is noted, among other observations, that WCO effects can be alleviated if the intended binder is interpreted as given/D-linked/topical (and [part of] the constituent containing the pronoun as focal). A relevant English example, from Zubizarreta (1998: 11), is given in (79):

(79) a. I would like to know who will accompany each/every boy the first day of school.
b. His MOTHER will accompany each/every boy the first day of school.

Crucially, given that clitic-doubled DPs are usually given/familiar (recall the previous subsection), the alleviation observed in (76) may actually be rather similar to that in (79) and, crucially, be due to the information structural properties of the binder. A-movement/head-movement may therefore no longer be necessary to account for the effect.

Crucially, WCO alleviation can be detected in Greek independently of clitic doubling, and solely by virtue of information-structural manipulations. For instance, by restricting the discourse set (viz., D-linking), WCO-configurations can be improved. In the following triple, the first example is quite unacceptable. (80b) involves clitic doubling and is fully acceptable. Crucially, (80c), which involves a D-linked wh-phrase, is quite acceptable without clitic doubling.

(80) a. ?*Pjon$_i$ misun ta peđja tu$_i$?
who.ACC hate.3PL the.NOM child.NOM.PL 3SG.M.GEN
'*Who$_i$ do his$_i$ children hate?'
b. Pjon$_i$ ton misun ta peđja tu$_i$?
who.ACC 3SG.M.ACC hate.3PL the.NOM child.NOM.PL 3SG.M.GEN
'*Who$_i$ do his$_i$ children hate?'
c. ?[Pjon điasimo iθopio]$_i$ misun ta peđja tu$_i$?
who.ACC famous.ACC actor.ACC hate.3PL the.NOM child.NOM.PL 3SG.M.GEN
'[Which famous actor]$_i$ do his$_i$ children hate?'

Focus on parts of the DP containing the bound pronoun has a similar ameliorating effect. Thus, a version of (80a) becomes quite acceptable in this context (note that the wh-phrase is not D-linked here):

(81) a. ?Pjon$_i$ misun akoma ke ta PEđJA tu$_i$?
who.ACC hate.3PL even and the.NOM child.NOM.PL 3SG.M.GEN
'?Who$_i$ do even his$_i$ CHILDREN hate?'
b. ?Pjon$_i$ misun ta iđja tu ta PEđJA?
who.ACC hate.3PL the.NOM.PL same.NOM.2PL 3SG.M.GEN the.NOM child.NOM.PL
'?Who$_i$ do his own CHILDREN hate?'

As in English (Eilam 2011: 150-175), combining more than one of the above IS manipulations results in

complete WCO alleviation, yielding perfect sentences; for Greek, the resulting sentences are thus on a par with clitic-doubling repairs. Here we illustrate with the combination of a D-linked wh-phrase and a focus particle:

(82) [Pjon ðiasimo iθopio]$_i$ misun ta iðja tu$_i$ ta
who.ACC famous.ACC actor.ACC hate.3PL the.NOM.PL same.NOM.PL 3SG.M.GEN the.NOM
PEÐJA?
child.NOM.PL
'[Which famous actor]$_i$ do his$_i$ own children hate?'

(83) [Pjon apo tus ðio eryazomenus]$_i$ ipes oti θavmazi akoma ke
who.ACC from the.ACC.PL two employee.ACC.PL say.PST.2SG COMP admire.3SG even and
to AFENDIKO tu$_i$?
the.NOM boss.NOM 3SG.M.GEN
'[Which of the two employees]$_i$ did you say that even his$_i$ BOSS admires?'

Turning to non-movement examples with quantifiers, without any information-structural manipulation, they are just as unacceptable as in English:

(84) *I mitera tu$_i$ aɣapai [to kaθe peði]$_i$.
the.NOM mother.NOM 3SG.M.GEN love.3SG the.ACC every child.ACC
'*His$_i$ mother loves [each child]$_i$.'

However, given the right context, such examples become grammatical, as shown by the Greek counterpart of English (79) above (the different discourse status of the QP can also be seen in the fact that it can undergo CLLD in this context):

(85) a. I would like to know who will accompany each child on the first day of school.
b. I MITERA tu$_i$ θa sinoðepsi to kaθe peði$_i$
the.NOM mother.NOM 3SGN.GEN FUT accompany.3SG the.ACC every.ACC child.N.ACC
tin proti mera sto sxolio.
the.ACC first.ACC day.ACC in.the school
'His$_i$ MOTHER will accompany [each child]$_i$ on the first day of school.'

The empirical generalization seems to be that WCO examples improve considerably with one information-strutural manipulation (D-linking or focus), and become fully acceptable with two such manipulations or with CLD.

We thus observe that doubling and information-structural manipulations both alleviate WCO. The obvious question, then, concerns why this should be. To offer a preliminary answer, it is necessary to first be precise about the effect of clitic doubling. As mentioned above, doubling of a DP is usually possible only if that DP is discourse-given/backgrounded. The following examples and accompanying scenarios illustrate this requirement:

(86) [Walking home, I run into Mary on the street. Entering my apartment, I say to my roommate, with whom I haven't discussed Mary at all that day:]
(#Tin) iða ti Maria molis tora.
3SG.F.ACC see.PST.1SG the.ACC Mary.ACC just now
'I saw Mary just now.'

(87) [As I enter my apartment, my roommate remarks that we haven't seen Mary recently. Having just

run into her on the street, I say:]
(Tin) iða ti Maria molis tora.
3SG.F.ACC see.PST.1SG the.ACC Mary.ACC just now
'I saw Mary just now.'

In other words, as is widely recognized, CLD does not come 'for free'; rather, there exist information-structural conditions on its application. A plausible explanation for WCO alleviation now comes into view, one whereby the factor responsible for this effect is not CLD itself, but rather the information-structural conditions that make CLD possible. In this view, information structure is the hidden 'third variable' governing the pattern we observe on the surface: the observed correlation between WCO alleviation and CLD does not point to a causal connection between the two, effected by movement, but rather to the presence of a third factor underlying both CLD and WCO alleviation independent of CLD, operative in the domain of discourse.

Though identifying the exact nature of this factor is beyond our scope here, we suggest that it is readily possible to understand how givenness, a prerequisite on clitic doubling, is involved here. What the IS manipulations discussed above have in common is that they restrict the reference set denoted by the wh-word or quantifier; for instance, overtly modifying a generic *wh*-word like *who* to yield a phrase like *which famous actor* specifies a narrow set of alternatives from which the question can be answered, namely, the set of famous actors. Interestingly, set restriction – by contextual means or not – contributes significantly to the amelioration of such examples. For example, (80c) above would be acceptable as a headline on the cover of a glossy magazine (*Revealed: Which famous actor do his children hate?*), but becomes even better if the set of alternatives is restricted more explicitly (e.g. *Revealed! Tom Hanks, Alec Baldwin, Jack Nicholson: which famous actor do his children hate?*). Focus arguably performs a similar function: in (83), for example, the focus-sensitive operator *even* specifies that the proposition in which it is embedded is rare or surprising, signaling that the set of entities from which the question can be answered is quite small (put simply, the set of people hated by everyone, even their own children, is presumably rather restricted).

Strikingly, the givenness condition on doubling seems of the same ilk: the doubled DP must be part of the restricted set of discourse-given entities in order to undergo CLD. Illustrated in (86)-(87), this fact is also seen clearly with reference to (80b). Doubling does make this example perfect, but only if the context satisfies the givenness condition on doubling: the example is most felicitous if a set of possible referents has already been established (e.g., a context where we are trying to assess which of four prominent aristocrats is most in danger of being assassinated by their power-hungry children, thus asking *Who is hated by their own children?*).[38]

From this perspective, it is not surprising that information-structural manipulations and CLD pattern together. We leave open at this point how this effect is to be modeled, including whether it can be integrated into a syntactic account or whether the facts discussed here speak in favor of a purely pragmatic account of WCO. See Safir (2017) for some discussion.

[38] Additional evidence in favor of the position that it is the information-structural correlates of clitic doubling, not any accompanying movement step, that ensure that doubling alleviates WCO comes from the observation in Suñer (1988: 422) that in Spanish clitic doubling, WCO alleviation with D-linked wh-phrases also obtains in long-distance movement with the bound pronoun in the matrix clause. Importantly, the analogous Greek example patterns the same way:

(i) [Pjo apo ta pedja]$_i$ ipe i mitera tu$_i$ oti den (to) andeçi?
which.ACC from the.ACC.PL child.ACC.PL say.PST.3SG the.NOM mother.NOM 3SG.N.GEN COMP NEG 3SG.N.ACC stand.3SG
'Which of the children$_i$ did its$_i$ mother say that she can't stand (it)?'

Here, A-movement will not be sufficient to explain the alleviation of WCO, since it will be confined to the embedded clause, never reaching a position above the pronoun.

The question remains why doubling has a stronger ameliorating effect on WCO than focus or D-linking on their own. We speculate that givenness restricts the reference set more than such information-structural manipulations on their own. Descriptively, while, say, D-linking supplies an instruction for the answerer to look in the set of famous actors, doubling, constrained by givenness, asks the answerer to look in the set of entities already mentioned in the discourse, which is very likely a much smaller set. Combining overt set restriction with discourse-givenness will constrain the search space even further, specifying it as the set of famous actors already mentioned in the discourse; assuming that WCO is alleviated more the narrower the set of alternatives is (for reasons left to be explained), we thus expect sentences combining more than one information-structural manipulation to be perfect, and this expectation is borne out, as discussed with reference to (82)-(83)

We believe that this information-structural perspective provides an account of the facts that is not only very plausible, but also more unified. An A-movement approach to CLD is certainly compatible with the ameliorating effect of clitic doubling on WCO, but has nothing to say on why WCO is also alleviated in a range of configurations that do not involve clitic doubling. Compared to an analysis that combines a movement-based explanation of clitic doubling-induced alleviation with a wholly separate account of information-structural alleviation, an explanation that reduces both effects to a single factor, namely, the level of information structure, seems more parsimonious.[39]

4.3 Intervention

The second type of data which has been used as evidence for movement and thus potentially constitutes a challenge for an Agree-based account comes from intervention effects. As observed by Anagnostopoulou (2003: 45, 187), in the presence of an IO, agreement between T and a low passive/unaccusative subject or an embedded subject in a raising configuration is only possible if the IO is clitic-doubled (note that the restriction applies to both agreement with a low nominative and A-movement of a low nominative across the IO. For the latter, see Anagnostopoulou 2003: 20-29):

(88) ***(Tis**$_i$**)** xaristike [tis Marias]$_i$ to vivlio apo ton Petro.
3SG.F.GEN gift.PASS.PST.3SG the.GEN Mary.GEN the.NOM book.NOM from the.ACC Peter.ACC
'The book was gifted to Mary by Peter.'

This interaction is, of course, reminiscent of experiencer intervention in other languages and suggests that the IO blocks Agree between T and the subject. The effect of CLD follows under a movement account if the genitive DP/the D-head of the IO moves 'out of the way' before T probes (and the trace of the IO is invisible). Under a pure Agree account, it is not *a priori* clear how to account for this effect.

Before discussing possible solutions under Agree, it must be pointed out that the intervention data are actually also potentially challenging for movement approaches. Regarding big-DP approaches, how they fare crucially depends on the structure of the big DP: if the clitic is adjoined to the DP as in Nevins (2011) or merged as a specifier of the big DP (Arregi and Nevins 2012), there will still be an intervention effect given that the IO big DP will asymmetrically c-command the nominative. The intervention problem can

[39]We would like to emphasize that the above is not meant to represent a complete account of WCO in Greek. As pointed out to us by an anonymous reviewer, there is a constructions in the language where givenness is not sufficient to ameliorate WCO effects, viz. (contrastive) topicalization, as discussed in Georgiou (2021). The data discussed in the paper generally involve fronted non-referential/non-specific objects, which consequently would not be expected to ameliorate WCO. However, according to the reviewer, they can, in principle, also be given but still fail to ameliorate WCO. While these topicalized objects are certainly different from the D-linked and CLD-ed objects discussed in this section in that they are contrastive, the notion of givenness will not suffice to account for the asymmetry w.r.t. WCO alleviation. We will leave this for future research.

only be handled if the clitic is actually the head of the big DP and moves away (cf. Uriagereka 1995). In that case, the doubled DP is embedded within the big DP and does not c-command the nominative. As has repeatedly been pointed out above, A-movement approaches usually assimilate the movement step to object shift/scrambling to a position in/slightly above Spec,vP (e.g., Harizanov 2014, Angelopoulos 2019). However, to remove the IO from the c-command domain of T, the IO would actually have to move to Spec,TP and thus require a movement step that is crucially different from object shift. Thus, without significant revisions, A-movement approaches actually cannot account for the intervention effect. Under a head-movement approach, the facts follow (e.g., Anagnostopoulou 2003), but they crucially require the probe that generates the clitic and triggers head-movement to be on T as well, a potentially nontrivial complication that is not addressed in that type of work (we will turn to this issue in section 5.1 below).

We will now show what a possible account of the intervention effect in Greek could look like under an Agree approach (see also section 5.1 below for details on the location of the Agree probe). We follow much previous work in assuming that the IO has phi-features and therefore is a possible goal for T, but since the phi-probe on T is case-discriminating, viz., can only agree with DPs bearing nominative case (cf., e.g., Preminger 2014), Agree fails and the derivation crashes – if there is no doubling. To account for the effect of clitic doubling, we will assume that phi-Agree with the IO deactivates IO for further phi-Agree and thus removes it as an intervener. We thus adopt a concept of activity that is not based on case as in Chomsky (2000), but on agreement. While less prominent, this perspective on activity has proven fruitful in a number of recent papers: e.g., Georgi (2013: 167) on the formation of portmanteaux where the second probe on T can skip the subject (that has already been agreed with), Kalin and van Urk (2015: 673) on agreement reversal in Neo-Aramaic, where agreement between Asp and the subject makes agreement between T and the object possible (see also Kalin 2020: 163); Oxford (2017), who argues that at least in some Algonquian languages, agreement of the subject with T will prevent it from agreeing with C.

Importantly, the concept of activity is dissociated from the licensing requirement discussed in section 4.1: all DPs bearing phi-features can, in principle, enter Agree and are thus active for phi-Agree as long as they have not already been involved in a phi-Agree operation. Modulo the optionality issue mentioned in 4.1 above, DPs with certain semantic/pragmatic properties (specific, definite, D-linked, topical DPs) will be associated with a derivational time-bomb and thus have to undergo Agree to be licensed, which for objects bearing these features implies that they require doubling. As a side effect of doubling, they become inactive for further phi-Agree.[40]

An important consequence of this analysis of intervention is that the probe that generates the IO clitic and thus deactivates the IO has to be discharged *before* the probe on T that agrees with the nominative. We will come back to the precise location of the probe and consequences for the probing mechanism and case-discrimination in section 5.1 below when we address the morphological realization of the Agree relationship involved in clitic doubling. Thus, to summarize, an Agree-approach can capture the effect of CLD on intervention, and it does so at least as straightforwardly as competing approaches, which also need to assume that the intervener interacts with the T-domain.[41]

[40] DPs also need case, which at least for objects we take to be dissociated from Agree with the clitic probe. This is clear given the fact that objects can bear case without triggering clitic doubling/Agree. As far as we can tell, both dependent case and assignment by functional head theories will work in the case at hand. Under dependent case, the case of the IO is determined at the ApplP-level (IO gets dative/genitive as it c-commands the theme). If no external argument is introduced, the theme gets nominative. If there is an agent, the theme gets accusative and the agent nominative at the vP-level and thus before the clitic probe initiates probing. Case assignment by functional heads is straightforward for the objects (dative/genitive from Appl, accusative from v). Having nominative be assigned by T will require fine-grained timing, though: the nominative case-probe would have to be associated with the Agree probe but would have to probe before it. In addition, these two probes would have to be linked so they both either probe before or after the clitic probe, see section 5.1 for details on the probes on T.

[41] The intervention facts in Greek are in fact considerably more complex/subtle than what is usually reported in the literature. We will briefly mention some of them here in the interest of transparency.

The first concerns the controversy whether A′-movement of the IO can lift intervention effects (as in Romance raising constructions). Anagnostopoulou (2003: 221ff.) argues that wh-moving the IO removes the intervention effect even in the absence of a clitic. According to Michelioudakis (2011: 137), different types of wh-words pattern differently, with the clitic being more obligatory with *pjanu* than with *tinos*:

(i) Pjanu/Tinos (tu) ðoθikan ta vivlia apo ton Petro?
who.GEN/who.GEN 3SG.M.GEN give.PASS.PST.3PL the.NOM.PL book.NOM.PL by the Peter
'To whom were the books given by Peter?'

The intervention effect can also be alleviated by focus fronting according to our judgment, see (ii) (but for a different judgment, see Michelioudakis 2011: 137, fn. 43, who, however, fails to provide a contrastive context):

(ii) TIS MARIAS xaristike to vivlio apo ton Petro.
the.GEN Mary.GEN gift.PASS.PST.3SG the.NOM book.NOM from the Peter
'The book was gifted to MARY by Peter (not to John).'

Things are different in *that*-relatives. As Daskalaki and Mavrogiorgos (2013: 330f.) show, the genitive clitic is obligatory in *pu*-relatives:

(iii) tu maθiti pu *(tu) aresi i ɣlossolojia
the.GEN student.GEN that 3SG.M.GEN please.3SG the.NOM linguistics.NOM
'to the student who likes linguistics' Daskalaki and Mavrogiorgos (2013: 331)

This last point is arguably related to independent requirements on the spell-out of oblique case. Note that the authors take clitics to be obligatory in intervention configurations with all types of A′-movement, a judgment we are skeptical about.

The effect of A′-movement on intervention has received much attention in the literature, see, e.g., Anagnostopoulou (2003: 220-230) for some discussion. There arises a cyclicity issue in these derivations given that, all things being equal, T would probe before C enters the derivation. At that point, the IO would still intervene. One solution that has been proposed in this context is that locality is evaluated at the CP-phase-level, viz., after A′-movement (this is essentially a representational approach). At that point, assuming that the trace of the dative is invisible, there would be no intervention anymore and both agreement with the low nominative/movement of the nominative would be grammatical. An alternative would be to assume that T is a phase-head in Greek so that A′-movement has to proceed via the specifier of T. If this intermediate movement step applies before T probes the nominative, the intervention effect could be voided as well.

There seem to be other ways of lifting the intervention effect that, to the best of our knowledge, have not been noted before: the effect becomes weaker or disappears (without doubling) if the theme moves across the dative, either by undergoing wh-movement as in (iva), or by undergoing short A′-scrambling across the IO as in (ivb) (see Anagnostopoulou 2003: 137-143 for evidence that nom/acc > IO orders involve A′-scrambling of the theme. Note that Michelioudakis 2011: 133, ex. 78 finds the scrambling examples degraded):

(iv) a. Ti (tu) ðoθike tu Petru?
what.ACC 3SG.M.GEN give.PASS.PST.3SG the.GEN Peter.GEN
'What was given to Peter?'
b. ?ðoθikan pende vivlia tu Petru.
give.PASS.PST.3PL five.NOM books.NOM the.GEN Peter.GEN
'Five books were given to Peter.'

Assuming that wh-movement proceeds successive-cyclically in (iva), the theme will be closer to T at the point when T probes for the nominative in both configurations. Consequently, clitic doubling the dative is not necessary. We should point out, though, that speakers' judgments on such examples vary considerably, mirroring the existence of large-scale inter-speaker variation in intervention configurations in, e.g., Icelandic (see, e.g., Murphy 2018: 524 and references therein).

The last empirical issue concerns the availability of defaults. The standard assumption in the literature seems to be that without the clitic, an intervention configuration leads to ungrammaticality, viz., the derivation crashes. However, there seem to be speakers that accept such examples with the verb displaying default third-singular agreement, especially in configurations where the IO cannot be doubled for semantic reason, e.g., when it is a negative quantifier (see also Kučerová 2016 for evidence from Icelandic that the semantic properties of the IO matter for intervention).

Of course, these additional complexities will have to be taken into account by a comprehensive analysis of intervention effects in Greek. This holds for our Agree-based approach, but it equally applies to competing movement-based approaches. We will not attempt to settle these issues here as they are orthogonal to our goals. All we intend to show in this subsection is that the effect of CLD on intervention effects can receive a solution under an Agree-approach that is just as straightforward as that under competing A-

5 Morphological aspects

In this subsection we will address various aspects of the morphology of clitic doubling. We first discuss the surface position of the clitic and its implications for the location of the probe in the syntax, which completes the account of the intervention effect introduced in the previous section. Then we tackle issues that at first sight may seem problematic for an Agree-based approach to clitic doubling, focussing on why clitics are often syncretic with the determiners of the DPs they double and why they display tense invariance. We will show below how these properties can be accommodated under an Agree approach and argue that, upon closer inspection, the challenges also arise for other theories of clitic doubling.

5.1 Morphological realization and position of the probe

In some of the clitic doubling literature (e.g., Nevins 2007, 2011, Řezáč 2008, Kramer 2014, Harizanov 2014, Baker and Kramer 2018, Preminger 2019, Coon and Keine 2021, Deal to appear), the clitics are associated with/generated by probes in the vP-domain (usually on v or Appl).[42] For Greek, low placement of the probe is problematic given that, in compound tenses, the clitics attach to auxiliaries rather than main verbs, see, e.g., Angelopoulos and Sportiche (2021: ex. 31a):

(89) an o Petros **to**$_i$ iche idhi djavasi [to vivlio]$_i$
if the.NOM Peter.NOM 3.SG.N.ACC have.PST.3SG already read.PFV the.ACC book.ACC
'if Peter had already read the book ...'

The descriptive generalization in Greek is very simple: the clitics attach to the finite verbal element, either the auxiliary or a synthetic verb form. In the latter case, one could account for the location of the clitic by assuming that the lexical verb drags the clitic (realized on Appl/v) along to T. However, given that the lexical verb does not move to T in compound tenses (which instead hosts the auxiliary), this will not work. Rather, the probe realizing the clitic must be high, namely, in the T area related to finiteness (but not higher than that given that the clitics surface below other elements in the clausal spine like complementizers, negation and the future marker). This conclusion is shared by Angelopoulos and Sportiche (2021: section 5.2), who argue, based on the morphological structure of the verbal complex where the clitic is external to tense and agreement, that the probe has to be above T.

However, given the intervention effects discussed in the previous section, locating the probe above T will not work: since Agree between the clitic probe and the IO alleviates the intervention effect, the clitic probe has to be discharged *before* the phi-probe on T that targets the nominative. This probe could thus be located on a head immediately below T but above v (that would be dragged along by the auxiliary, cf. Angelopoulos 2019), or it could be a second probe on T.

We opt for the latter solution. The reason for this is that it must be possible for the probes to be discharged in either order, which is only possible if they are located on the same head. Consider first a context where a clitic-doubled IO co-occurs with an external argument (as, e.g., in ditransitives). In that case, the nominative argument will be encountered first. If the clitic probe were located below T, it would invariably have to probe first and would first encounter the nominative argument, which would arguably lead to a crash – because the clitic probe cannot copy features from a nominative argument (see below) and/or because agreement with the IO (bearing a derivational time-bomb) will be bled, with the IO thus

or head-movement approaches.

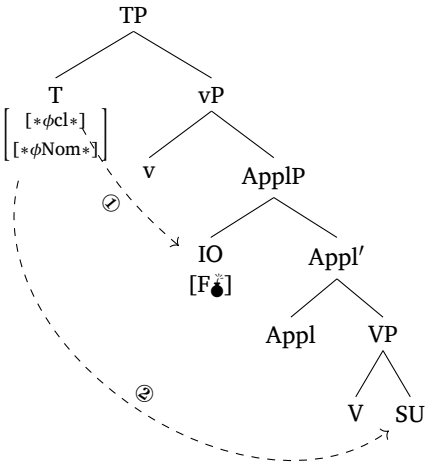
[42] This is often related to particular implementations of the Person Case Constraint (PCC), which require low probes. We discuss the consequences of the high surface position of the clitic for theories of the PCC in a separate paper, see Paparounas and Salzmann (to appear).

remaining unlicensed; one therefore could not account for clitic-doubled IOs in the presence of an external argument. Thus, both the phi-probe targeting the nominative and the (optional) phi-probe generating the clitics are located on T. In addition, we assume that the probes can be discharged in either order (but in certain configurations some orders of application do not lead to convergence).

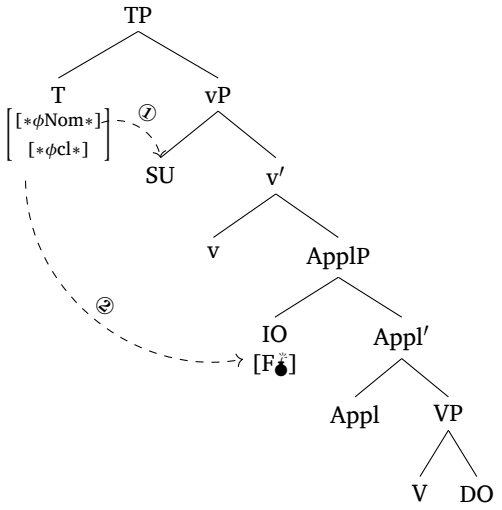
In IO-nominative configurations, a grammatical output obtains if the clitic probe is discharged first: It agrees with the IO and deactivates it. Subsequent probing by the (case-discriminating) phi-probe that can only interact with subjects (nominatives) will then lead to subject agreement, see (90). Under the reverse ordering the nominative probe cannot be valued by the IO (because of case-discrimination), which acts as an intervener between T and the low subject. This leads to a crash (or to default agreement, for the speakers that accept it, recall the discussion in fn. 41).

In configurations where a clitic-doubled IO co-occurs with an external argument, the probe targeting nominative arguments will have to apply first. It encounters the nominative argument and deactivates it. Subsequent probing by the clitic probe will find the IO and lead to clitic doubling, (91); the reverse ordering does not lead to a converging result because (i) the clitic probe cannot copy features from the nominative argument and (ii) the subject-agreement probe cannot interact with the IO because of case-discrimination:

(90) unaccusative



(91) transitive



The reason why the clitic probe cannot copy features from the nominative is because the clitic probe must also be assumed to be case-discriminating: it is restricted to only target non-nominative cases (= accusative or dative/genitive). While perhaps unusual, this assumption explains why there are no PCC effects in IO-nominative constructions, see Anagnostopoulou (2003: 90, ex. 133, 254) (but see Michelioudakis 2011: 145, ex. 95a for a different view regarding theme passives):

(92) Tu areso tu Jani eɣo.
3SG.M.GEN please.1SG the.GEN John.GEN I.NOM
'John likes me.'

If the clitic probe could access the low nominative, a PCC effect should obtain. The grammaticality of such structures suggests instead that the clitic probe only interacts with the IO, while the subject-agreement

probe targets the nominative.[43]

In the PF component, explicit rules must make sure that the clitic probe is realized outermost in the verbal complex, while the nominative probe is realized as a suffix (note that such operations are also necessary in other approaches, especially those where the clitic is associated with v; see, e.g., Nevins 2011, Kramer 2014: 623).

5.2 Syncretism between clitic and determiner

A frequent observation about clitic doubling languages is that the clitic is syncretic with definite determiners of the language; this not only holds for certain Romance languages but also for Modern Greek.[44] This syncretism seems to follow naturally under approaches where the clitic is the spell-out of a D-head which has moved to v/T (head-movement approaches) or which has been reanalyzed with v/T after object shift (A-movement + rebracketing approaches); in both cases, we are dealing with D heads heading definite DPs.[45]

Under an Agree approach, this is less obvious; one may *a priori* expect the clitic probe to be realized like the affixal subject agreement markers; at least without further assumptions, the fact that clitics look like determiners rather than agreement affixes does not follow.

Before addressing the morphological form under an Agree approach, we would like to stress that the appeal of the syncretism argument loses much of its force once one takes into account that, at least in Modern Greek, clitic doubling is not restricted to DPs headed by a definite determiner. While most doubled DPs are probably formally definite (recall the discussion in section 4.1 above), there are also instances of doubled indefinites as in (93) (from Angelopoulos 2019: 18; see also Angelopoulos and Sportiche 2021: ex. 42):

(93) Tha to etrogha ena sokolataki tora.
IRR 3SG.N.ACC eat.PST.1SG one.ACC small.chocolate.SG.N.ACC now

[43]Relativizing the probe to accusative dative/genitive requires case decomposition in the syntax (see, e.g., Alexiadou and Müller 2008 for discussion and references) and a probe that singles out the two non-nominative cases, e.g., by specifying it as [+governed].

As in much of the PCC-literature (see Anagnostopoulou 2017b for a recent overview), we assume that the clitic probe can potentially interact with both internal arguments. To allow doubling of just one of the objects (which is a possibility in Greek, see Anagnostopoulou 2003: 200–202), the clitic probe may additionally have to be restricted to only probe for objects with a time-bomb. Since we address the interaction of the clitic probe with two objects in the context of the Person Case Constraint in a different paper (Paparounas and Salzmann to appear), we will not discuss this any further here as it would lead us too far afield. Given that the probe on T can access objects within vP, Agree must be subject to the weak version of the PIC (if it is subject to the PIC at all). Incidentally, since the choice between FC CLD and resolved CLD interacts with the PCC, arguably a prime exemplar of a grammatical phenomenon, we take it that resolution is not an extra-grammatical process, *pace* Lyskawa (2021).

[44]The syncretism is not always perfect, though. This also holds for Greek, where there is no syncretism in the genitive plural. Kouneli and Kushnir (to appear) show that in those cases where there is no syncretism, clitic doubling fails or is at least degraded and interpret this as evidence in favor of a movement approach. We suspect instead that the restriction on the doubling of plural genitives may have a non-syntactic source (essentially a garden path effect caused by the fact that the syncretic clitic can be interpreted as an ACC DO instead of a GEN IO), because doubling plural IOs seemingly improves if they are headed by the quantifier 'all':

(i) ?Tus eðiksa olon ton fititon mia ikona.
3PL.GEN show.PST.1SG all.GEN.PL the.GEN.PL student.GEN.PL one.ACC image.ACC
'I showed all the students an image.'

We leave detailed exploration of this hypothesis for future work.

[45]The connection is less obvious in a big DP-approach, especially in those approaches where the clitic occurs in the specifier of a Big-DP (Arregi and Nevins 2012) or is adjoined to the DP (Nevins 2011). Given that the D is not in its canonical configuration (taking an NP-complement), one will probably have to add something (viz., contextual allomorphy rules) to account for the syncretism. Things are different, of course, if the clitic is the head of the big DP as in Uriagereka (1995).

'I would now eat a small chocolate.'

Other instances of doubling without obvious syncretism involve doubled strong pronouns as in (94):[46]

(94) Tha se stilune tu Yioryu **esena**.
FUT 2SG.ACC send.3PL the.GEN George.GEN you.ACC
'They will send you to George.'

While the representation of strong pronouns may include a definite D, this is hard to argue for in (93). Consequently, the head-movement and A-movement + rebracketing approaches will also have to deal with a certain mismatch between the doubled D and its realization as a clitic. This may require contextual allomorphy rules for D-elements adjoined to verbs. Another possibility is that the vocabulary item for the definite determiner is in fact the elsewhere case, viz., a determiner without any specification for definiteness. While this may seem unusual, Lekakou and Szendrői (2012) argue, in the context of determiner doubling, that the definite article in Modern Greek is expletive with definiteness contributed by a silent higher functional head (this would also fit with the observation that the clitic has no semantic import, as shown by the fact that it can double anaphors, see Angelopoulos and Sportiche 2021: section 5.3.2.) Thus, the vocabulary items for all determiners except for the definite determiner would have a context restriction (only realized in the context of NP). The definite determiner would then occur in all other environments, in DPs that are marked as definite and in D-elements adjoined to verbs. Thus, ensuring that the moved D-heads are realized as clitics in derivational approaches is far from trivial.

Under an Agree approach, a little more has to be said. To obtain fully specified clitics, the clitic probe arguably has to copy the category feature and case feature of the doubled DP along. The specifications for the VIs for determiners mentioned in the previous paragraph will then ensure that the definite determiner is the elsewhere case and is also inserted into Ds within the verbal complex. Thus, the treatment of the syncretism is eventually not too different from that of the derivational accounts.[47]

[46] A third case may be DPs headed by the quantifier *kaθe* 'every'. However, since they can also optionally occur with a definite determiner preceding the quantifier, their status is somewhat unclear.

Yet another challenging case is resolved doubling. Under the derivational approaches, it is not clear how to obtain a clitic if either a part of &P head-moves (the head &?) or the label of &P amalgamates with v.

[47] As shown in Angelopoulos and Sportiche (2021: ex. 2c), Greek clitics can also double CPs. The authors conclude from this that the clitic probe must have its own categorial feature (rather than copying it from the DP). Such a solution is not obviously available to us given that the probe is not an independent syntactic head but one of several probes of a single head, viz., T. It is not fully clear, though, that this conclusion is necessary for doubling of CPs. We can imagine at least three ways in which ϕ-features could be available on clauses. First, it is sometimes claimed that CPs do bear ϕ-features (e.g., to account for the ban on Hyperraising). Second, what looks like clitic doubling of a CP could be an instance of clausal prolepsis with the clitic functioning as the actual argument (rather than just the spell-out of phi-features) and the CP occupying a non-argument position, being linked to the clitic via adjunction or just semantically. Third, there is a large body of literature arguing in favor of a nominal shell on top of CPs (in which case it would also not be clear whether the 3rd singular neuter clitic that occurs with them is to be treated as a default, which would represent an agreement rather than a clitic doubling property, cf. Preminger 2009); this is especially true for Modern Greek, a language where CPs can be nominalized overtly (Roussou 1991), e.g., familiar complements. Things would be different if clitics could double predicates/APs as in French, but this is not the case for Modern Greek.

One can view the fact that the categorial feature is copied along as a trace of the pronominal origin of the clitics/agreement markers. As correctly pointed out by a reviewer, this leaves unexplained why only the object agreement probe copies extra features. For Indo-European, one can probably appeal to the fact that subject agreement is old enough to have lost all possible traces of a pronominal origin. But in principle, our approach allows for the reverse, viz., a language with subject clitics and object agreement; we do not know whether such a combination is attested.

Alternatively, instead of copying the categorial feature along, one could use contextual allomorphy to ensure that the phi-features copied onto the clitic probe are realized as clitics. As long as the case-features are copied along, there would be sufficient information to separate these phi-bundles from those for subject agreement. Under such an approach, the overlap in form between determiners and clitics would be accidental. This may seem unattractive, but given that there is a diachronic pathway between pronouns and agreement, we may expect them to look similar, and it is thus not fully clear to us what this implies for the synchronic analysis, viz.,

5.3 Clitic doubling vs. agreement and the role of tense invariance

Given our implementation of clitic doubling in terms of Agree, one may wonder whether the phenomenon should rather be termed object agreement instead and, indeed, whether this choice amounts to more than terminology.

There is a sizeable literature that attempts to develop diagnostics to tease agreement and clitic doubling apart (see, e.g., Preminger 2009, Nevins 2011, Kramer 2014, and references cited there). We believe that there are two complexities that these attempts must reckon with: First, given that there is a diachronic pathway between pronouns and agreement, we are skeptical that the two can always be easily teased apart. It seems to us that what is usually referred to as clitic doubling in a given language can occupy different points on a grammaticalization scale. Consequently, while a phenomenon may look similar on the surface in two languages, it may eventually behave quite differently depending on the language and may not fit nicely into the agreement-clitic doubling dichotomy. Second, we think that any such classificatory attempts are misguided if they are built on the premise that there is a direct relationship between the syntactic mechanism that establishes cross-reference on the verb and how its output is realized morphophonologically. We believe in fact that there is strong evidence suggesting that the two must be kept strictly separate. We thus follow Yuan (2021), who shows for two Inuit varieties that what morpho-phonologically looks like canonical cases of agreement in fact can correspond to either agreement or clitic doubling syntactically. The case at the heart of this paper would be the reverse: a phenomenon that morphophonologically behaves more like a clitic has the properties of syntactic agreement. In other words, there can be dissociations between syntax and morphology in both directions: there is no necessary correlation between what syntactic mechanism derives the phenomenon at hand, and how the morpo(phono)logy chooses to 'package' the output of the syntax.

Thus, whether clitic doubling in Greek should instead be referred to as object agreement is, in our view, largely a matter of what one takes the terminology to mean, viz., whether the terminology is intended to reflect the underlying syntactic mechanism or certain morphophonological properties. Of course, apart from its form, clitic doubling in Greek also differs from canonical cases of agreement in that it is optional and sensitive to the features of the XP it cross-references (see, e.g., Corbett 2006: 12-19, 26–27). However, there are languages where what is morph-phonologically clearly affixal is also sensitive to the semantic properties of the controller, see, e.g., Kalin (2018) on Senaya. Thus, again, while there may be cross-linguistic tendencies, these are not necessary correlations. Against this background, then, it seems more important to be explicit about the syntactic derivation and the morphophonological properties of a cross-referencing phenomenon than to justify a particular terminological choice.

Before concluding this section, we would like to highlight that even the morphophonological diagnostics are not without problems. For reasons of space, we will not attempt to address all issues that have been brought up in this debate. We will rather briefly address one issue that has received particular prominence, namely, the issue of tense invariance. According to the literature, while agreement markers can contextually vary for tense/aspect/mood, clitics remain invariant, not showing allomorphy of this kind. If we took tense invariance as a diagnostic, clitic doubling in Greek would qualify as genuine clitic doubling and not an instance of agreement. This could be seen as an argument in favor of approaches where the clitic is treated as (arising from) a separate D element in the syntax.

Two objections to this reasoning come to mind. Firstly, tense variance is at most a weak one-way diagnostic. Even if it is informative when an element does vary contextually for tense (a point on which we are skeptical; see below), in cases where there is no allomorphy, as in Greek, one cannot conclude anything either way, since there is no reason to expect that any element capable in principle of participating in

whether the overlap in form has to be captured as a syncretism.

allomorphy *must* do so in all cases. Indeed, in many (especially agglutinating) languages, elements routinely treated as agreement markers do not vary allomorphically for tense, mood, or aspect.

Secondly, it is far from obvious that theories of clitic doubling where the clitic realizes a separate D element in the syntax (as in all movement-based accounts discussed above) in fact explain tense invariance, rather than merely assert it. It is unclear to us what the reason is to expect, in the first place, that agreement material should always be eligible for allomorphy but clitic-like material should never be. What seems to be presupposed here is a settled-upon theory of the locality domains on contextual allomorphy that cross-cuts the agreement/clitic divide in the appropriate way; but we very much consider the nature of the locality conditions on allomorphy to be a matter of ongoing empirical investigation rather than a fact to be taken for granted, and thus the premise of the tense invariance diagnostic does not seem to hold.

Note in this connection that many existing theories of the locality of allomorphy would predict agreement markers and clitics to pattern together, in line with our first point above. For example, in a post-syntactic theory like Distributed Morphology Embick (2015), a clitic D head adjoined to T could be made to be in the ideal location to vary contextually for tense. For example, if recent work were to turn out to be correct in assuming as a working hypothesis that allomorphy takes place within a morphological word (Embick 2010), then both clitics and agreement markers could be in the appropriate domain for allomorphy conditioned by tense-related features. Importantly, in such a theory, the structure of agreement could look basically identical to that of cliticization: agreement features copied onto T would appear under a dissociated morpheme inserted at PF, which, like a clitic, is a head adjoined to T. Once clitics and agreement affixes are involved in essentially the same structure, they are predicted to be equally eligible for allomorphy conditioned by a given trigger, under any proposed theory of the conditions on allomorphic locality within a domain (e.g. adjacency), all things being equal (see also Yuan 2021: 157 on this issue).

The point here is not that the above is necessarily the correct way to understand cliticization, affixal agreement, or the locality conditions on allomorphy, but that it is certainly a possible way to do so; in the absence of a settled understanding of these issues, tense invariance has little ground to stand on.

Finally, the grammaticalization aspect seems important here as well. Assume that a clitic in a clitic doubling language is developing into an agreement marker; in such a scenario, it seems likely that it will retain certain similarities with a pronoun (which perhaps still exists in strong form) and will not yet show allomorphy for tense (which can develop at a later stage). Given these considerations, we remain skeptical on the utility of tense invariance as a diagnostic of possible differences between agreement and clitic doubling.

6 Conclusion

In this paper, we have discussed first conjunct clitic doubling in Modern Greek. The fact that clitic doubling can target individual conjuncts rather than just the entire coordination had hitherto not received much attention. We have shown that this phenomenon has far-reaching implications for the syntax of clitic doubling: it argues against prominent movement approaches to CLD like big-DP approaches, long head-movement approaches and A-movement + rebracketing approaches, which would all incorrectly rule out FC CLD as a violation of the CSC. The phenomenon thus favors approaches where the clitic arises solely by means of Agree, where the CSC is not at stake. In addition, we have provided independent arguments against A-movement and head-movement approaches on the basis of binding data: CLD has no influence on binding, suggesting that the doubled DP occupies its regular argument position.

In the second part of the paper, we addressed evidence from the previous literature for movement in CLD, namely, WCO alleviation and the suspension of intervention effects in IO-nominative configurations. We

have shown that, upon closer inspection, WCO configurations do not clearly support a movement account; we have proposed instead that the alleviation through clitic doubling should be linked to independently noted information-structural properties of CLD; since WCO can be alleviated without clitic doubling, the link between the two is incidental, not causal. As for intervention effects, we have shown that the suspension of intervention can be captured under an Agree approach as well once the concept of activity is extended to the involvement of phi-features in Agree. To capture the distribution of CLD, which depends on the semantic and pragmatic properties of the doubled DP, we have adopted a licensing-based approach akin to Kalin (2019) that assimilates CLD to differential object marking.

In the last part of the paper, we investigated different morphological aspects of CLD. We first showed that given the surface position of the clitics, the probe generating the clitic must be in the T domain, contrary to what has been assumed in some of the literature. To account for the effect of CLD in both intervention and non-intervention configurations, we proposed that the clitic probe is a second, optional probe on T. In the last sections we addressed morphological facts often used to argue against agreement approaches, including syncretisms between clitics and determiners and tense invariance. We argued that the morphological relationship between clitics and determiners is actually more complex and requires extra assumptions under all approaches, not just the Agree approach. Finally, we discussed what the Greek facts imply for the clitic doubling vs. agreement debate. Given the possible mismatches between the syntactic derivation and the morphophonological output, we concluded that the focus should not be on which label is assigned to a phenomenon (as it will necessarily be partially incorrect in such cases) but rather on the description of both the syntactic and morphological properties; we also argued in this context that tense invariance, often taken to distinguish between clitic doubling and agreement, is at best an inconclusive diagnostic.

As a final point, we emphasize again that, since our data only comes from Modern Greek, the scope of our claim remains circumscribed to this language at this point, although we have been informed that other languages, including Albanian and Macedonian, also allow FC CLD. It remains to be seen if, once we apply our diagnostics to these languages, the picture that emerges for Greek is replicated. Clearly, FC CLD does not seem to be universally available. For instance, it is impossible in Bulgarian (Harizanov 2014: 1061, fn. 29) and Kuria (Bantu; Diercks et al. 2015). Consequently, our CSC-based argument against movement approaches to CLD does not extend to such languages. This confirms earlier observations that the syntax of CLD may differ significantly between languages despite any surface similarity.

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