Chapter Six:

Subject Extraction and Clause Reduction

There is something special to the syntax of subject wh-movement—the mechanism that draws to the left periphery that class of wh-phrases that should otherwise move up to the highest a-position in the clause. In English, many patterns suggest that this process differs from the mechanism that raises all other types of wh-phrases to the left periphery—and many parallel facts suggest that it disrupts the usual syntax of the cp- and tp-layers. Thus it is not at all clear in English that subject wh-phrases ever pass through spec,tp, the typical subject position, in the derivations where they move to the left periphery (1a)—and it is not clear, when they escape embedded clauses, that the cp-layer is even built (1b).

(1) *The Syntax of Subject Extraction*

a. [$_{\text{CP}}$ Who [$_{\text{TP}}$ ___ [$_{\textit{voiceP}}$ ___ left]]]?

b. Who do you think [$_{?\text{P}}$ (*that) ___ left]?

This interlocking pair of issues—the disruption to the usual syntax of subjecthood and the often-concomitant disruption to the cp-layer—has inspired a wide body of cross-linguistic research that aims to address and resolve the fundamental questions in (2):

(2) *The Riddles of Subject Extraction*

a. Path: what are the positions that subject wh-movement passes through?

b. Position: what happens to the subject position as subject wh-phrases move?

c. Disruption: what effect does this process have on the shape of the cp-layer?

In the years since Perlmutter 1968 and Rizzi 1982, the literature has made an extraordinary amount of progress on these three questions by studying the essential effects in (1): the "skipping" of the usual subject position (McCloskey, 2000; den Dikken & Griffiths, 2018; Erlewine, 2020) and the wider reduction of the cp-layer in certain cases of subject wh-movement (Doherty, 1993; Rizzi & Shlonsky, 2007a; Shlonsky, 2014; Pesetsky, 2021). But this clarity has not been matched by the body of work that has arisen around a third phenomenon that emerges in contexts of subject extraction: the Anti-Agreement Effect (Brandi & Cordin, 1989; Ouhalla, 1993). This is one that has the descriptive shape in (3).

(3) *The Anti-Agreement Effect*

When subject dps undergo wh-movement to the left periphery in some languages, they stop triggering the canonical pattern of ϕ-agreement on t^0.

The literature on the Anti-Agreement Effect has proposed a range of analyses that would allow us to integrate the basic effect with the other systems that govern subject WH-movement—linking Anti-Agreement to the failure of WH-subjects to pass through SPEC,TP (Brandi & Cordin, 1989; Campos, 1997; Erlewine, 2016) or the link from subject WH-movement to reduction of the CP-layer (Shlonsky, 2014; Pesetsky, 2021). But these steps toward integration are rejected by the far-reaching work of Baier 2018, who proposes—at the end of a cross-linguistic survey of 63 languages—that the Anti-Agreement Effect is a morphological phenomenon that is unrelated to the special syntax of subject WH-movement. The tension between all of these perspectives leaves us with the essential question in (4).

(4) *The Guiding Question*
What is the relationship, if there is any at all, between the Anti-Agreement Effect and the syntax of subject extraction?

In pursuit of an answer, the following two chapters work through the analysis of a particular Anti-Agreement Effect that sits close to the core of Baier 2018's case for a purely morphological analysis. This is an Anti-Agreement Effect that emerges in the system of ergative-absolutive agreement in Mandar, an Austronesian language of Central Indonesia. In this language, there is a single pattern of agreement that always targets the absolutive DP—the sole argument of an intransitive verb (5a) or the internal argument of a transitive verb (5b). In the examples below, this agreement is spelled out as the third-person form *i*.

(5) *Mandar: Absolutive Agreement*

a. Mimbue' i iAli.
wake up 3ABS NAME
'Ali woke up.'

b. Na-itai i Barriers.
3ERG-look for 3ABS BOOK
'He looked for his copy of Barriers.'

When absolutive DPs undergo WH-movement—both the sole arguments of intransitive verbs and the internal arguments of transitive verbs—this type of agreement disappears.

(6) *Mandar: The Absolutive Anti-Agreement Effect*

Apa na-itai ___/*i t_{apa} puranna le'ba' mimbue'?
what 3ERG-look for 3ABS t_{what} right after waking up

'What did he look for right after waking up?'

Building from similar data in the closely related language Selayarese, Baier 2018 argues that this pattern reveals that it is impossible to draw a link from the Anti-Agreement Effect to the particular syntax of subject WH-movement—as the absolutive DP is not a subject. But as we weigh the fine syntax of this effect in Mandar, we will come to the opposite view: this language requires the absolutive DP to raise to the highest A-position in the clause, and as a result, this absolutive Anti-Agreement Effect must be understood as an exact analogue of the cases where Anti-Agreement is forced by extraction of nominative DPs. We will then leverage this result to reorient our investigation around the question in (7):

(7) *The Guiding Question: Revised*
This Anti-Agreement Effect is related to the syntax of subject extraction—but how?

From this position, the next two chapters work through the syntax beneath this effect. As our investigation proceeds, we will ultimately come to see that the Anti-Agreement Effect in Mandar is bound up with a conspiracy of clause reduction at a staggering scale: the specific process that raises WH-subjects, in this language, forces the outright deletion of the entire CP-layer and the parallel suppression of several heads in the extended TP. The result is that the Mandar analogue of pattern (1b)—where an absolutive DP is extracted from an embedded clause—forces reduction of the embedded clause to a size beneath TP.

(8) *Subject Wh-Movement: Clause-Reduction Beyond the TP*

Innai	na-ua	iAli	[$_{\text{ASPP}}$ ___	na-pittama	setang	___	dionging]?
who	3ERG-say	NAME		3ERG-seize	demon		yesterday

'Who did Ali say [$_{\text{ASPP}}$ that a demon seized ___ yesterday]?'

To capture these facts, these chapters will develop a new theory of structure-building that attempts to explain, in an entirely bottom-up and derivational fashion, how the movement of WH-subjects can suspend the syntactic mechanisms that build up the TP and CP. Beginning with a study of a Comp-Trace Effect in this language, we will first propose that the CP-layer must originate as a bundled head that undergoes a cyclic process of *Unfolding*: a type of head-movement and reprojection that gradually expands it into an extended CP. In Chapter Six, we will work to understand how Unfolding is arrested by the movement of WH-subjects—forcing an extreme form of bundling in cases of subject WH-movement. In Chapter Seven, in turn, we will examine the corresponding effect of subject WH-movement on the Mandar TP—and gradually build a case that the systems of Bundling and Unfolding must extend down to the that layer as well. The ultimate force of our investigation will be to suggest that the TP- and CP-layers enter into the derivation as a single complex head—one whose unfolding is severely derailed by subject WH-movement in Mandar and English.

1 Background

Mandar is an Austronesian language spoken by 400,000 people in the Indonesian province of West Sulawesi. It belongs to the South Sulawesi subfamily of Malayo-Polynesian (Esser, 1938; Mills, 1975; Smith, 2017) and can be productively compared to the other languages of that subfamily, which have been described in a larger body of English-language work (Friberg, 1991, 1996; Strømme, 1994; Matti, 1994; Valkama, 1995a,b; Jukes, 2006; Lee, 2008; Kaufman, 2008; Laskowske, 2016; Finer, 1994, 1997, 1998, 1999; Béjar, 1999; Finer & Basri, 2020). Mandar has been the subject of an Indonesian-language grammar (Pelenkahu *et al.*, 1983), a survey of adverbs (Sikki *et al.*, 1987), a compilation of traditional poetry (Muthalib & Sangi, 1991), and a conversational handbook (Friberg & Jerniati, 2000), as well as an English-language survey of dialects (Grimes & Grimes, 1987). This paper will focus on the standard variety of the language, which is spoken on the coast between the cities of Polewali and Majene (Grimes & Grimes, 1987). Its results emerge from long-term research with a single native speaker, Jupri Talib, and systematic cross-checking with two native speaker linguists: Sitti Sapiah (University of West Sulawesi) and Hairuddin (Universitas Hasanuddin). The language of investigation has been Indonesian throughout.[1]

Mandar shows a consistent unmarked word order of V-S-O-D-X (Brodkin, 2024) (verb > external argument > internal argument > applied argument > VP-level adjuncts). The language shows no morphological case-marking, unlike the languages of the Philippines to the north. But like many languages of Sulawesi, it shows an ergative-absolutive system of agreement: transitive verbs host a prefix that spells out person agreement with the external argument, and finite clauses contain an enclitic that spells out person agreement with the absolutive argument. Example (10) shows the shape of a Mandar clause.

(9) *The Mandar Clause*

V	S	O	X
Na-taliti i	iAli	catatang lette'-na	Barriers patappulo taung.
3ERG-study 3ABS	NAME	note foot-3GEN	BARRIERS forty years

'Ali studied the footnotes in Barriers for forty years.'

[1] GLOSSING: ABS: absolutive, ANTIP: ACC: accusative, APPL: applicative, DAT: dative, ERG: ergative, GEN: genitive; 1SG: first-person singular. ORTHOGRAPHY: <c, ng, '>: /t͡ʃ, ŋ, ʔ/.

Like Indonesian, the language has a class of rigidly ordered elements that mark polarity and aspect in the space above the verb. The topmost elements in this domain are the realis and prohibitive negators *ndang* and *da*, and these are followed by the experiential perfect *rua*, the habitual *biasa*, the emphatic marker of positive polarity *yari*, and the completive *pura*. There has been a steady accumulation of evidence to suggest that these elements form a coherent syntactic class (Brodkin 2021a,c, 2022a,b, 2024; Chapter One), and to this end, we can note that absolutive agreement always docks on the highest overt element of this set. I will refer to these elements as auxiliaries in the discussion to come.

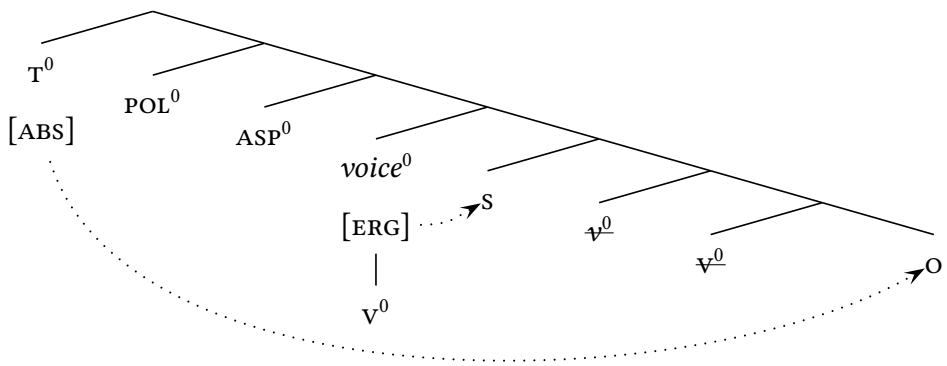
(10) *The Mandar Middlefield*

Ndang	**i**	rua	na-waca	sisa-na.
not	3ABS	ever	3ERG-read	rest-3GEN

'He never read the rest of it.'

From this initial body of facts, we can surmise the rough clausal syntax in tree (11): the auxiliaries spell out heads in the middle field, the verb undergoes head-movement to a position immediately beneath them, and nominal arguments are generally spelled out in their base positions in the extended VP. In the domain of agreement, the facts of linear order suggest that absolutive agreement originates above the auxiliaries and that ergative agreement originates in the head *voice*^{0}; in transitive clauses, these probes agree with the internal argument (INT) and external argument (EXT), respectively (I assume that the EXT originates in SPEC,*v*P: Collins 2005; Merchant 2013). The result is a sketch of the Mandar clause that fits neatly with prior work on the languages of the South Sulawesi subfamily (on Selayarese: Béjar 1999), with particular currents in the literature on ergativity (Bittner & Hale, 1996a,b; Aldridge, 2004; Wiltschko, 2006; Coon *et al.*, 2014) and, as we will see, with a great body of evidence within the language itself (Brodkin, 2022b, 2024, To Appear).

(11) *Mandar Clause Structure*



1.1 Wh-Movement

Our investigation begins with the syntax of WH-movement. The languages of the South Sulawesi subfamily typically require interrogative WH-words to move to the left periphery (Strømme, 1994; Friberg, 1996), and Mandar is no exception in this respect (Pelenkahu *et al.*, 1983). The basic pattern can be seen in the system of VP-level adjunction in Mandar: temporal adjuncts usually follow the VP (12a), but WH-adjuncts like *pirang* "when" cannot remain in that position. Instead, they invariably surface at the left edge of the clause (12b).

(12) *Mandar Wh-Phrases*

a. [$_{voiceP}$ Na-patidoa' i iAli buku kannang-na taung diolo'].
3ERG-publish 3ABS NAME book sixth-3GEN year last
'Ali published his sixth book last year.'

b. Pirang i [$_{voiceP}$ na-patidoa' iAli buku kannang-na ___] ?
when 3ABS 3ERG-publish NAME book sixth-3GEN
'When did Ali publish his sixth book?'

Brodkin 2020 and Chapter Four demonstrate that WH-phrases are placed in this clause-initial position by the obligatory process of WH-movement to the left periphery in (13).[2]

(13) *Mandar Wh-Movement*
[$_{FP}$ WH … [$_{voiceP}$ v … ___]]

[2]These properties establish a syntactic divide between Mandar and Indonesian, the language that has been used to conduct this research. Indonesian is a WH-in-situ language, like many other languages of Western Indonesia, but it has constructions that place WH-words at the left edge of the clause. The result is that it seems to have constructions in which nominal argument WH-phrases seem to move left, like (1).

(1) *Indonesian: Clause-Initial Wh-Phrases*
Apa yang Ali baca ___?
what REL NAME read
'What did Ali read?'

Many strands of evidence, however, reveal that this Indonesian construction is underlyingly a pseudocleft: the initial WH-phrase is the predicate of a copular clause and what follows is a headless relative clause.

(2) *Indonesian: Wh-Pseudoclefts*
[$_{VP}$ Ø$_{COPULA}$ apa] [$_{DP}$ yang Ali baca]?
what REL NAME read
'What is the thing that Ali read?'

It is clear that the analogous Mandar constructions cannot be analyzed in the same way. This is because: (*i*) Mandar has an overt copula and overt pseudoclefts, which can be easily distinguished from WH-questions, (*ii*) Mandar WH-questions pass a broad range of tests for monoclausality (e.g., WH-phrases host 2P clitics), (*iii*) and WH-moved material triggers none of the presuppositions that fall upon the pivots of pseudoclefts.

The focus of this chapter falls on the way that WH-movement interacts with the system of agreement. In transitive clauses in Mandar, we have seen that the INT controls absolutive agreement. But when the INT undergoes WH-movement, this agreement disappears.

(14) *Wh-movement → ✗Absolutive Agreement*

Apa (*i) [$_{voiceP}$ na-pogau' iAli ___]?
what 3ABS 3ERG-do NAME
'What did Ali do?'

We can see the same effect in ditransitive clauses, where the pattern of agreement is different. In the ditransitive, absolutive agreement targets the applied argument (GOAL): thus in example (15a), the absolutive agreement enclitic spells out the person features of the GOAL. But when the GOAL undergoes WH-movement, this enclitic disappears (15b).

(15) *Ditransitive Goals: Same Pattern*

a. [$_{voiceP}$ Na-be-ngang a' iCicci' nomor-na [$_{GOAL}$ *pro*]]
3ERG-give-APPL 1ABS NAME number-3GEN me
'Cicci' gave me her number.'

b. Innai (*i) [$_{voiceP}$ na-be-ngang iCicci' nomor-na ___]
who 3ABS 3ERG-give-APPL NAME number-3GEN
'Who did Cicci' give her number to?'

These observations establish the opening notes of the guiding mystery of this piece. In the finite clauses of the language, there is some head that triggers absolutive agreement with the transitive INT and the ditransitive GOAL. This head continues to agree in its usual fashion in the clauses where WH-movement targets other constituents, like WH-adjuncts:

(16) *Adjunct Wh-Movement: No Disruption to Agreement*

Pirang o [$_{voiceP}$ na-be-ngang nomor-na [$_{GOAL}$ *pro*] ___]
when 2ABS 3ERG-give-APPL number-3GEN you
'When did she give you her number?'

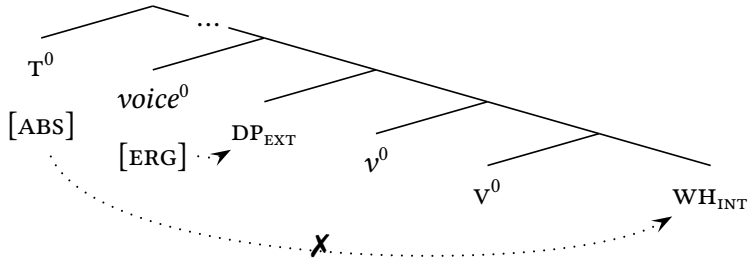
But this pattern of agreement is suspended when the usual targets of agreement are targeted by the process of WH-movement. Identifying the DPs that would canonically control this agreement as absolutive DPs, then, we arrive at the following basic effect.

(17) The Starting Fact about Mandar:
Absolutive agreement disappears when WH-movement targets the absolutive DP.

1.2 The Connection to Movement

This type of interaction between WH-movement and ϕ-agreement is familiar from many different languages, and it is known in the literature as the ANTI-AGREEMENT EFFECT (Ouhalla, 1993). As we begin to study its particular instantiation in Mandar, then, it will be useful to ground our starting effect within the larger theoretical framework that has emerged around patterns of this type. The natural place to begin is with the source of the disappearance of agreement. A seminal current in the theory of movement posits that WH-expressions are structurally distinct from regular DPs, in that they carry (at least) a feature [WH] that singles them out for WH-movement (Chomsky, 1977). It thus seems natural to imagine—following O'Herin 1995's work on ϕ-agreement with WH-phrases in Abaza—that the regular pattern of absolutive agreement is morphologically derailed when T^0 encounters a DP that bears the feature [WH]. This account is sketched in the tree below.

(18) *Wh-Phrases: Featural Problems with Agreement?*



The result is an account that would treat the suppression of absolutive agreement in Mandar as an essentially morphological effect: when the absolutive DP is a WH-phrase, something goes wrong within the system of ϕ-agreement. There are a number of ways in which this intuition might be understood within a theoretical framework that posited an articulated postsyntactic component, such as Distributed Morphology (Halle & Marantz, 1993), and indeed a far-reaching account of this type is proposed by Baier 2018. The core claims of his account, which we will weigh carefully in the investigation below, are that (*i*) all interactions between WH-elements and ϕ-agreement reduce to a single phenomenon, (*ii*) that phenomenon is fundamentally morphological (WH-features derail ϕ-agreement), and (*iii*) that phenomenon is not linked to the particular syntax of WH-movement—and thus cannot be linked to the syntax of WH-movement from particular syntactic position.

It is against this backdrop that we return to our investigation of Mandar.

The natural place to begin is with the wider distribution of anti-agreement in the syntax of Mandar. Up to this point, we have seen that absolutive agreement is suppressed when the absolutive DP is a simple WH-phrase like *apa* 'what' or *innai* 'who.' Consistent with the morphological account, we can now go on to note that this agreement is also suppressed when the absolutive DP is a D-linked WH-phrase. This fact sets up an initial contrast with the class of Anti-Agreement Effects that are suspended in the presence of D-linked WH-phrases (Suñer, 1992), and we will return to this fact in Section 2.

(19) *Quantified + D-Linked Wh-Phrases → ✗Absolutive Agreement*

[$_{WH}$ Catatang lette' inna] (*i) [$_{voiceP}$ na-taliti iAli ___ de taung e]?
footnote which 3ABS 3ERG-study NAME this year here

'Which footnote is Ali studying this year?'

Beyond this point, however, the predictions of the morphological account break down. Mandar has a process of focus-fronting that places certain types of focused constituents into the left periphery, and as in many languages (Horvath, 1986; Brody, 1990; Rizzi, 1997; Aboh *et al.*, 2007; Aboh, 2016; Hedding, 2022) this process appears to implicate the exact same syntax as WH-movement (Brodkin, 2020). The parallel that is most important at present is the following: focus-fronting also triggers the suppression of absolutive agreement when it targets the transitive INT (20a) or the ditransitive GOAL (20b).

(20) *Focus Fronting → ✗Absolutive Agreement*

a. [$_{DP.FOC}$ NOMOR 17] (*i) [$_{voiceP}$ na-taliti ___].
number 17 3ABS 3ERG-study

'He's studying number 17.'

b. [$_{DP.FOC}$ YAU] (*a') [$_{voiceP}$ na-be-ngang nomor-na ___].
me 1ABS 3ERG-give-APPL number-3GEN

'She gave her number to ME.'

So too is it triggered by relativization, which patterns together with WH-movement and focus-fronting in Mandar (as elsewhere) in many other respects (Brodkin, 2020).

(21) *Relativization → ✗Absolutive Agreement*

Ka'bal i de' [$_{DP}$ sandro [$_{CP.REL}$ ___ na-pelambi'i (*i) ___]].
invincible 3ABS allegedly shaman 3ERG-visit 3ABS

'The shaman that he visited is allegedly invincible.'

In the face of these facts, it is possible to assume—as Baier 2018 does—that the relevant patterns of ϕ-agreement are disrupted in each case by features on the elements that move: [FOC] features on fronted foci and presumably [REL] features on relativized DPs. But this approach violates the Inclusiveness Condition of Chomsky 1995, 2001, and more importantly, it obscures meaningful generalizations about the wider shape of this system. To begin, there are many classes of focused elements in Mandar that fail to move into the left periphery, and all of these elements trigger the usual pattern of absolutive agreement. Thus contrastive and corrective foci move to the right edge of the clause, landing in a position that coincides with the nuclear stress of the intonational phrase (Brodkin, 2024), and these elements trigger the usual pattern of agreement when they are absolutive DPs.

(22) *Rightward Focus Movement → ✓Absolutive Agreement*

Na-bimbing **i**	iAli	___	taung	diolo'	[$_{\text{DP.FOC}}$	skripsi	manggali	cl. 18].
3ERG-advise 3ABS	NAME		year	last		thesis	about	fn. 18

'Ali advised last year A THESIS ON FN. 18.'

In the same vein, the language has a process of topicalization that fails to trigger Anti-Agreement (23). This difference, in turn, correlates with a network of additional properties that distinguish topicalization from WH-movement in Mandar (Brodkin, 2024).

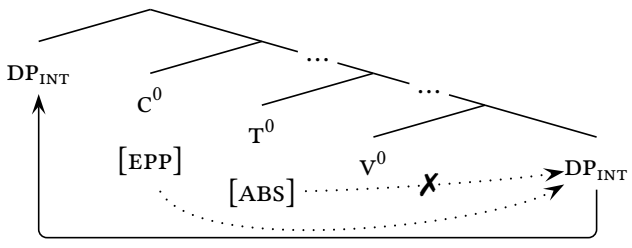
(23) *Rightward Focus Movement → ✓Absolutive Agreement*

Tapi [$_{\text{DP.TOP}}$	cl. 19],	na-cowa dua **i**	na-pahang	___.
but	fn. 19	3ERG-try still 3ABS	3ERG-understand	

'But fn. 19, he's still trying to understand.'

It is technically possible, in light of these patterns, to formulate a featural system that will draw the relevant divisions without reference to movement to a specific position. But the unmistakeable impression that emerges from serious consideration, I believe, is that the suppression of absolutive agreement is correlated with the movement of the absolutive argument to a specific position in the Mandar left periphery—one occupied by WH-phrases, certain foci, and relative operators. It will suffice for now to summarize this effect as follows: absolutive agreement cannot target constituents that move to SPEC,CP.

(24) *Anti-Agreement: Linked to Movement to SPEC,CP*



To this picture we can now introduce one further piece: it is clear in Mandar that there is a very tight connection between the head that triggers absolutive agreement and C^0. There has been a steady accumulation of evidence to suggest that absolutive agreement originates high in the Mandar clause (Brodkin, 2021a,b,c, 2022a,b), as seen by the fact that: (*i*) absolutive agreement is absent from the types of complement clauses that can be independently shown to be structurally reduced, such as the complements of control and restructuring verbs (though ergative agreement remains within these contexts), and (*ii*) absolutive agreement forms portmanteaux with the heads that expone viewpoint aspect in Mandar, which can be independently shown to originate above all the auxiliaries. But what is most important now is the third pattern that has featured in this overall case: (*iii*) absolutive agreement surfaces in a distinct irrealis paradigm and appears as a suffix on C^0 beneath the irrealis complementizer *anna'*. Thus the regular first person absolutive enclitic *a'* in (25a) surfaces as its irrealis allomorph *-u* in the Mandar song lyric in (25b):

(25) *Absolutive Agreement → Allomorphy Triggered by C^0*

a. Mala **a'** ma'issangi alawe-u.
can 1ABS know self-1GEN
'I have the capacity to know myself.'

b. Bulang, indoia' mai' **anna'-u** mala ma'issangi alawe-u
moon shine on me that-1ABS.IRREALIS can know self-1GEN
'Moon, shine on me that I might know myself.' Bulang, by Sulkep Liaco

This type of allomorphy requires a tight syntactic relationship between the triggering and the targeted heads (Embick, 2010; Bobaljik, 2012; Merchant, 2015; Svenonius, 2016), and its force is to suggest that the head that hosts absolutive agreement sits close to C^0: plausibly, it is T^0. And on the understanding that WH-movement is driven by C^0, we can begin to see this Anti-Agreement Effect as one that turns on the delicate relationship between C^0 and T^0. Informally speaking, we can characterize it along the lines in (26).

(26) *Mandar Anti-Agreement: Our First Impression*
The absolutive DP stops interacting with T^0 (and fails to trigger ϕ-agreement) when it begins to interact with C^0 (and undergoes WH-movement to SPEC,CP).

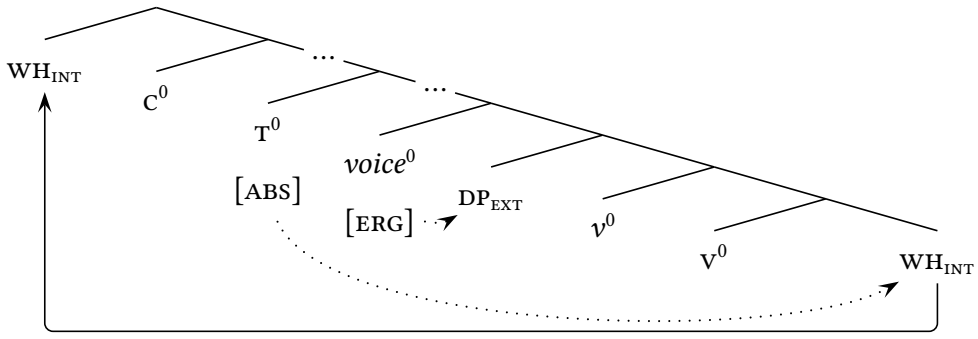
It is this perspective —and the ensuing link to the C^0-T^0 framework of Chomsky 2008—that will ultimately lead us to a new perspective on the Anti-Agreement effect.

1.3 Interim Question: The Relevance of the Launching Site

We can begin to make sense of this situation with a short pivot to the literature on parallel effects in the Mandar region. Mandar is part of a tight-knit subgroup of languages—the South Sulawesi Subfamily—that share two properties that have been established so far: (*i*) they all require absolutive DPs to trigger agreement with a very high head, like T^0, and (*ii*) they all prohibit absolutive DPs from triggering this type of agreement when these DPs undergo WH-movement, focus-fronting, and relativization (Strømme, 1994; Matti, 1994; Finer, 1994, 1997, 1998, 1999; Valkama, 1995a,b; Friberg, 1996; Béjar, 1999; Jukes, 2006; Kaufman, 2008; Laskowske, 2016). These patterns have been especially well-described in one language of this subgroup, Selayarese, in the careful and sustained work of Dan Finer, and it is from his work that this regional pattern enters into the wider literature. Building on the data (though rejecting the fundamental analysis of clause structure) in Finer 1997, 1999, Baier 2018 develops an explicit account of the parallel Anti-Agreement Effect in Selayarese. This analysis, in turn, forms the linchpin of the wider arguments put forth in that work, and as a result, it will be useful to weigh it carefully here.

Baier 2018's discussion of Selayarese proceeds as follows. Baier 2018, (pages 198-199) observes that Selayarese, like Mandar, shows a pattern of absolutive agreement that is derailed by WH-movement of the absolutive DP: thus the transitive INT fails to trigger agreement when it undergoes WH-movement, focus-fronting, or relativization. He proposes the following analysis: in contexts of Anti-Agreement, the DPs that undergo WH-movement bear "Ā-features" which, in the framework of agreement that he adopts, induce a morphological disruption in the exponence of the ϕ-agreement that obtains between the absolutive DP and T^0. The result is the rough syntax in tree (27): when the absolutive DP undergoes WH-movement, it continues to interact with T^0 in the syntax—and the Anti-Agreement effect emerges in a postsyntactic morphological component.

(27) *Baier's Analysis of Selayarese Syntax: Anti-Agreement ≠ Syntax*



The argument for this analysis is the following. Selayarese, like Mandar, has several types of clause in which absolutive agreement targets the EXT. The most important of these are the clauses where the verb bears the affix called the AGENT VOICE or ANTIPASSIVE prefix in the Western Austronesian literature (Guilfoyle *et al.*, 1992; Aldridge, 2004). The following example shows a clause of this type in Mandar, which is the same as its analogue in Selayarese in all respects: the verb loses its ergative agreement prefix and takes an antipassive prefix instead, and absolutive agreement begins to target the EXT.

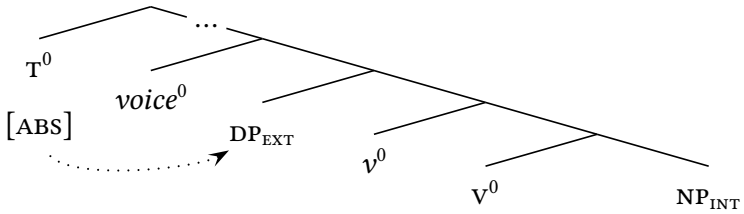
(28) *The Antipassive Construction in Mandar*

Mam-baca	a'	[$_{\text{EXT}}$ *pro*]	buku.
ANTIP-read	1ABS	me	book

'I'm reading a book.'

On our analysis of Mandar and on Baier 2018's analysis of Selayarese, which builds from Finer 1997, 1999 and Béjar 1999, these clauses show the pattern of agreement in (29): T^0 agrees with the EXT and no head triggers overt ϕ-agreement with the INT.

(29) *Antipassive Clauses: Agreement*



Within these clauses, the pattern of Anti-Agreement operates in its usual way in both Selayarese (Baier, 2018, 206) and in Mandar: absolutive agreement is suppressed when the absolutive EXT undergoes WH-movement (30a), focus-fronting, or relativization.

(30) *Antipassive Clauses: Absolutive WH-movement → Anti-Agreement*

a. Innai (*i) [$_{voiceP}$ mam-baca ___]?
who 3ABS ANTIP-read
'Who's reading?'

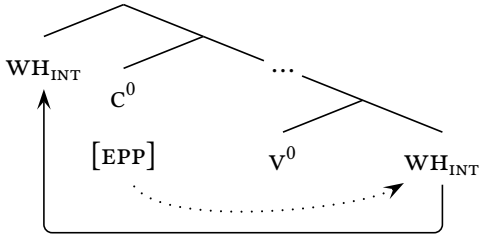
b. Iting tau (*i) [$_{voiceP}$ mam-baca ___].
that person 3ABS ANTIP-read
'THAT PERSON is reading.'

Descriptively speaking, Baier observes, this fact leads us to the following conclusion: WH-movement of any type of absolutive DP triggers the same pattern of Anti-Agreement. The effect is the same for the transitive INT, ditransitive GOAL, and antipassive EXT.

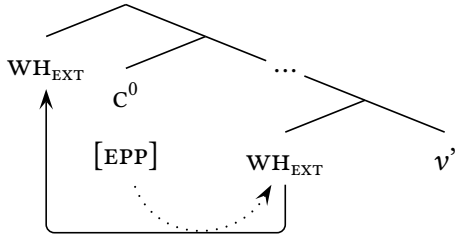
It is this fact about Selayarese—that Anti-Agreement is forced by WH-movement of any absolutive DP—which leads Baier 2018 toward a theoretical centerpiece of his thesis. Baier 2018, 203 asserts that "it is clear that arguments do not have to move to a specific structural position to control absolutive agreement" in Selayarese. He thus assumes that WH-movement extracts arguments from their base positions in that language: it attracts the transitive INT from within the VP (31a) and the antipassive EXT from SPEC,*v*P (31b).

(31) *Baier's Analysis of Selayarese: Wh-Movement from Different Positions*

a. *The Transitive INT*



b. *The Antipassive EXT*



In light of this analysis, Baier 2018, (pages 202-203) advances the claim in (53).

(32) *Baier 2018 on Anti-Agreement*
(There is a single unified analysis to all cases of Anti-Agreement, and)
Anti-Agreement is not linked to constraints on movement from specific positions.

It is this theoretical step that establishes the stakes for our investigation of Mandar. Baier 2018 takes his analysis of Selayarese to necessitate the abandonment of a classical intuition that underlies almost all previous work on Anti-Agreement. This position, which emerges from the work of Brandi & Cordin 1989 and Ouhalla 1993, is summarized in (54):

(33) *The Standard Analysis of Anti-Agreement*
(Setting aside cases where *in-situ* WH-phrases fail to trigger regular ϕ-agreement,)
Anti-Agreement is fundamentally bound up with syntactic constraints on
WH-movement from the highest clause-internal A-position (the "subject position").

The result is that the facts of Selayarese and Mandar acquire a central position within a far-reaching debate on the nature of the Anti-Agreement Effect. If Baier 2018 is correct that there is no correlation between Anti-Agreement and movement from a particular syntactic position—in either Selayarese or Mandar—then we would arrive at a challenge for the classical analysis in (54). But if Baier 2018's analysis is wrong for both languages, the classical approach may survive. We thus return to our investigation with the following question on the horizon: what is the syntax of WH-movement of the absolutive DP?

1.4 The Position of the Absolutive DP

We can begin to understand the syntax of Mandar WH-movement with a brief return to the system of Quantifier Stranding. In Chapter Five, we saw that Mandar has a quantifier *pira* that combines with WH-phrases to yield "WHAT-ALL" constituents: roughly, complex WH-expressions whose answers must denote pluralities and which demand an exhaustive identification of the members in the answer set.

(34) *The What-All Construction in Mandar*

[$_{QP}$ Apa pira]?
what ALL
'What all?'

The quantification element *pira* appears only within the WH-system of the language, and it has no independent distribution outside of that domain (unlike the English *all*).[3] It is initially interesting for the fact that it can be stranded in the base position of its associated WH-phrase. The result is that this element can surface in one of two distinct positions in a VSO clause where WH-movement targets the INT: it can either immediately follow the WH-INT in its high position (35a) or it can be stranded in the base position of the INT (35b).

(35) *Pira: Stranding in Thematic Positions*

a. Apa **pira** [$_{voiceP}$ na-ande iAli ___ wattunna di Papua]?
what ALL 3ERG-read NAME when in Papua
'What all did Ali eat when he was in Papua?'

b. Apa [$_{voiceP}$ na-ande iAli ___ **pira** wattunna di Papua]?
what 3ERG-read NAME ALL when in Papua
'What did Ali eat all when he was in Papua?'

The same pattern of stranding can be seen in all cases of absolutive WH-movement. Thus when WH-movement targets the antipassive EXT, *pira* can be stranded after its trace.

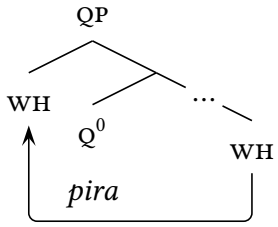
(36) *Pira-Stranding: Wh-Movement of the EXT*

Innai [$_{voiceP}$ ma'-ande ___ **pira** papeda wattunna di Papua]?
who ANTIP-eat ALL FOOD when in Papua
'Who ate all *papeda* (a sort of jello made from sago) when in Papua?'

[3] *Pira* also seems to be morphologically unrelated to the adnominal quantifiers that denote *all* (*inggan-nanna*), *each* (*ianasanna*), and *every* (*nasang*) in Mandar. The semantic contribution of *pira* is most naturally rendered in Indonesian by the combination of a WH-phrase with the adverb *saja*, which means "just."

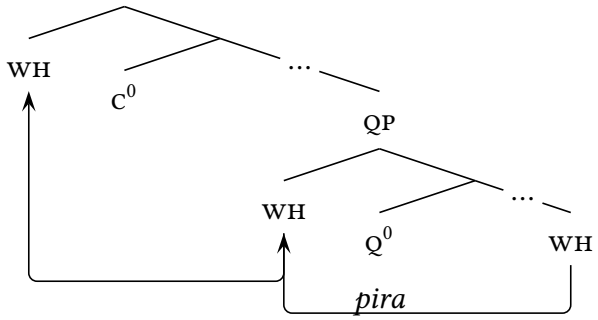
To capture this pattern, Chapter Five proposes an analysis that is relatively familiar from the literature on Quantifier Stranding. On this view, the quantifier *pira* is a head in the extended NP, and WH-phrases raise above it to yield the NP-internal order of WH-PIRA.

(37) *Pira: Functional Head*



When the WH-phrase and *pira* surface together in the left periphery, Chapter Five argues that the entire nominal constituent undergoes WH-movement. But when *pira* appears at the tail of the movement chain, Chapter Five proposes that the WH-phrase undergoes subextraction and WH-movement by itself, stranding *pira* in its base position (Giusti, 1991; Shlonsky, 1991; McCloskey, 2000; Fitzpatrick, 2006). The result is the syntax in (60).

(38) *Pira-Stranding*



This analysis earns its basic merit from the way that it explains the distribution of *pira*: this quantifier, as demonstrated at length in Chapter Five, can only be stranded in positions that sit along the path of WH-movement. This analytical success, in turn, will allow us to leverage the wider distribution of *pira* to trace the particular path of WH-movement in Mandar. For instance, in Section 2, we will return to the important fact that in cases of long-distance WH-movement *pira* can be stranded at the embedded CP edge.

(39) *Pira: Stranded at the Edge of the CP*

Apa	mu-sanga	[CP ___	**pira**	yari	na-tulisi	___	tappa	ChatGPT]?
what	2ERG-think		ALL	DID	3ERG-write		without	ChatGPT

'What do you think all that he did write without ChatGPT?'

At present, however, the more important pattern of stranding is one that operates lower in the clause. Mandar has a class of preverbal auxiliaries whose linear positions open up a window into the syntax of the middle field. In clauses that contain these elements, it is possible for *pira* to surface in the base position of its associate (= stranding) or to surface immediately after the WH-phrase (=pied-piping). But it is also possible for *pira* to appear in a third position: right between the lowest auxiliary and the verb (57).

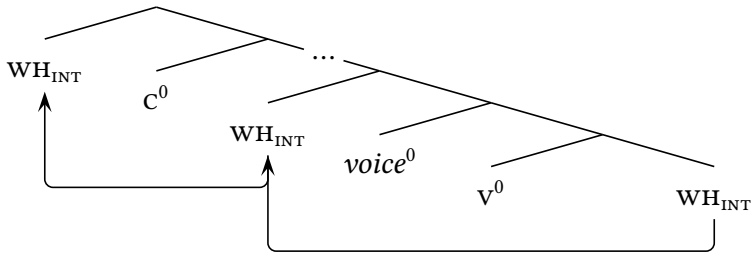
(40) *Pira: Stranding beneath Auxiliaries*

Apa	[ASPP	rua	yari	[*voiceP*	___	**pira**	na-ande	iAli	___ dio]]?
what		once	DID			ALL	3ERG-eat	NAME	there

'What DID Ali once all eat there?'

On the understanding that *pira* can only surface in the positions passed through by WH-movement—a position defended at length in Chapter Five—we can understand this second pattern of stranding to suggest that WH-movement of the transitive INT must pass through a position that falls immediately above the verb. On the understanding that the verb sits in the head $voice^0$, the head at the top of the clause-internal phase (Chapter Two), we thus arrive at the analysis in (58): the WH-INT raises to SPEC,*voice*P and then SPEC,CP.

(41) *The Path of Wh-Movement*



Against this backdrop, we can now go on to observe that WH-movement can strand *pira* in this intermediate position whenever it targets any type of absolutive argument—such as the ditransitive GOAL (42a) and the antipassive EXT (42b).

(42) *Absolutive Wh-Phrases: Always Pass through SPEC,voiceP*

a.

Innai	[ASPP	yari	[*voiceP*	___	**pira**	na-be-ngang	nomor-na	___]]?
who		DID			ALL	3ERG-give-APPL	number-3GEN	

'Who DID she all give her number to?'

b.

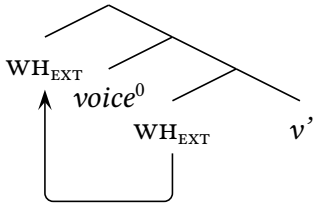
Innai	[ASPP	yari	[*voiceP*	___	**pira**	mat-tulisi	___	esai	tappa	CGPT]]?
who		DID			ALL	ANTIP-write		essay	without	CGPT

'Who DID all write an essay without ChatGPT?'

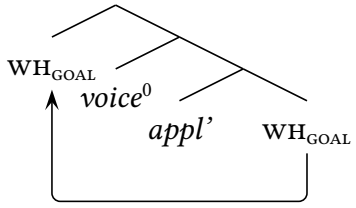
The force of these facts is to suggest that there is a single syntax to all the patterns of absolutive WH-movement that we have seen so far: all absolutive WH-phrases move to SPEC,*voice*P before they move to SPEC,CP. The antipassive EXT thus undergoes the initial step of movement in (43a); the ditransitive GOAL undergoes the step of movement in (43b).

(43) *The First Step to Wh-Movement*

a. *Antipassive EXT → SPEC,voiceP*



b. *Ditransitive Goal → SPEC,voiceP*



We can now go on to observe that the same process targets all types of absolutive DPs. Under a set of circumstances detailed exhaustively in Chapter One, the head *voice*^{0} visibly attracts the absolutive DPs to the same position. This is a fact that can be seen in clauses that contain auxiliaries, where absolutive DPs often appear in the exact linear position where *pira* can be stranded: between the lowest auxiliary and the verb. This pattern is shown in example (44), where the transitive INT moves overtly to SPEC,*voice*P.

(44) *The Transitive INT: Often Moves Overtly to SPEC,voiceP*

Yari i	[$_{voiceP}$ [$_{INT}$ iting esai]	na-tulisi	___	tappa ChatGPT].
DID 3ABS	that essay	3ERG-write		without ChatGPT

'He DID write that essay without ChatGPT.'

Chapter One establishes that this step of movement targets all types of absolutive DPs (and never anything else). The following examples illustrate: in clauses with auxiliaries, *voice*^{0} often visibly attracts the ditransitive GOAL (45a) and the antipassive EXT (45b).

(45) *All types of Absolutive Arguments → SPEC,voiceP*

a.

Yari i	[$_{voiceP}$ [$_{GOAL}$ iting kantor]	u-kiringang	formulir 72-B	___]
DID 3ABS	that office	1ERG-send-APPL	form 72-B	

'I DID send that office Form 72-B.'

b.

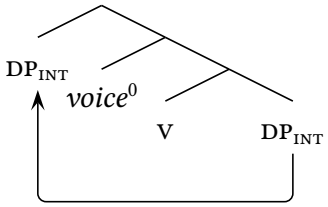
Rua i	[$_{voiceP}$ [$_{EXT}$ setat-ta']	mac-coro'	___	kocci' boyang]
once 3ABS	demon-1PL.GEN	ANTIP-steal		key house

'Once our demon stole a housekey.'

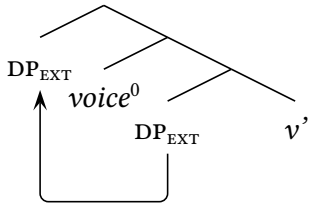
These facts reveal that there is a regular process in the A-syntax of the language that attracts the absolutive DP to SPEC,*voice*P. In the clauses that contain auxiliaries, this pattern is often overtly reflected in the word order—as it places the absolutive argument in the linear position that falls between the lowest auxiliary and the verb. The following trees illustrate this step of movement: in transitive clauses the head $voice^0$ attracts the INT to SPEC,*voice*P (46a), and in antipassive clauses, it attracts the EXT (46b).

(46) *Mandar A-Syntax: Part One*

a. *Transitive INT → SPEC,voiceP*



b. *Antipassive EXT → SPEC,voiceP*



Returning now to verb-initial clauses, we can observe that there is little linear evidence for the same step of movement: transitive, ditransitive, and antipassive clauses all show a basic word order of VSO(D).[4]. But there is very good evidence to suggest that this process continues to operate in a covert fashion, placing the absolutive DP in SPEC,*voice*P but forcing it to be spelled out in its base position. This basic syntax is sketched in (47).

(47) *Verb-Initial Clauses: Covert Movement of the Absolutive DP*

[*voiceP* ___	Na-polei	i	pale'	iAli	[INT sandro]	suka' pandemi].
	3ERG-visit	3ABS	more	NAME	shaman	since pandemic

'Ali has been visiting the shaman more since the pandemic.'

The case for this pattern of covert movement emerges from the syntax of binding. In a series of papers, Brodkin 2022b, 2024 establishes that the grammar of Mandar contains a principle like Condition C of the Binding Theory (Chomsky, 1981; Reinhart, 1983): a pronoun cannot C-command a coreferential R-expression. In the ditransitive, for instance, it is ungrammatical for a pronominal EXT to be coindexed with an R-expression in the INT.

[4]There are contexts where this step of movement occurs overtly in verb-initial clauses. But Chapter One demonstrates that this process is often obscured in that context by constraints on output prosodic structure, which often force the absolutive DP to be spelled out its base position. The contrast with the pattern of spell-out in auxiliary-initial clauses—where the absolutive DP is spelled out in SPEC,*voice*P much more often—correlates in a straightforward way with the differences in prosodic phrasing that emerge between verb-initial and auxiliary-initial clauses in the language. See Chapter One, pages 36-38

(48) *Condition C: Ditransitive EXT > INT*

Na-kiring-ang a' [$_{\text{EXT}}$ *pro*] [$_{\text{INT}}$ buku-na iAli]
3ERG-send-APPL 1ABS he book-3GEN NAME
'He$_{*i,j}$ sent me Ali$_i$'s books.'

This restriction suggests the presence of a constraint with the shape in (49).

(49) *Condition C*

A pronoun cannot C-command a coreferential R-expression in Mandar.

We can now observe that, no matter the facts of linear order, the absolutive DP *always* appears to raise to SPEC,*voice*P for the purposes of Condition C. Thus the ditransitive GOAL can always contain an R-expression coindexed with a pronominal EXT.

(50) *Condition C: Ditransitive GOAL > EXT*

Na-kiring-ang i [$_{\text{EXT}}$ *pro*] [$_{\text{INT}}$ *buku*] [$_{\text{GOAL}}$ sola-na iAli]
3ERG-send-APPL 3ABS he book friend-3GEN NAME
'He$_{i,j}$ sent Ali$_i$'s friends the book.'

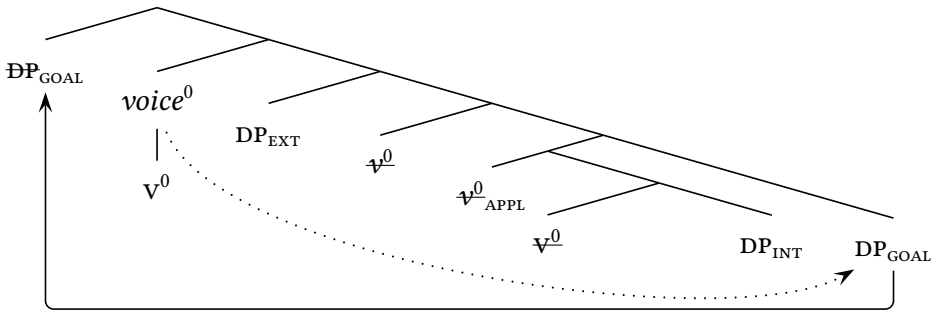
The same privilege extends to the transitive INT: this argument can always contain an R-expression that is coindexed with the EXT, even when it is a postverbal definite DP.

(51) *Condition C: Transitive INT > EXT*

Na-na-baca i [$_{\text{EXT}}$ *pro*] [$_{\text{INT}}$ *buku* [na-alli iAli dionging]] manini
will-3ERG-read 3ABS he book 3ERG-buy NAME yesterday later
'He$_{i,j}$ will read [the book that Ali$_i$ bought yesterday] later.'

These facts reveal that the transitive INT and ditransitive GOAL always raise to SPEC,*voice*P, even in the verb-initial clauses where they are not overtly spelled out in that position. Generalizing the same results to the antipassive EXT, we arrive at the following analysis of the clausal syntax of the language: under all circumstances, the absolutive DP raises to SPEC,*voice*P. In a ditransitive clause, this process yields the step of movement in (52).

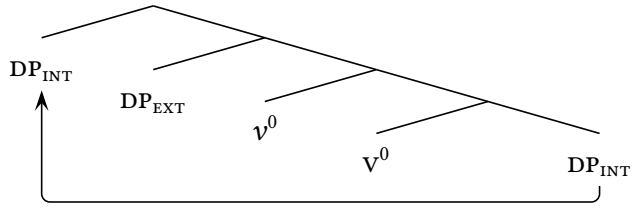
(52) *Systematic Movement of the Absolutive DP*



1.5 Anti-Agreement Revised

With this much in place, we can now return to the syntax of the Anti-Agreement Effect. From the facts of *pira*-stranding, overt movement, and Condition C, we can be certain that absolutive arguments—including absolutive WH-phrases— raise to SPEC,*voice*P in Mandar. And turning back to Selayarese, we can now note that Finer 1999 proposes a very similar analysis for that language. On the basis of entirely independent evidence (primarily drawn from the facts of word order in verb-initial clauses), he proposes that the absolutive DP always raises to the outermost specifier of *v*P in Selayarese, along the lines in (53).

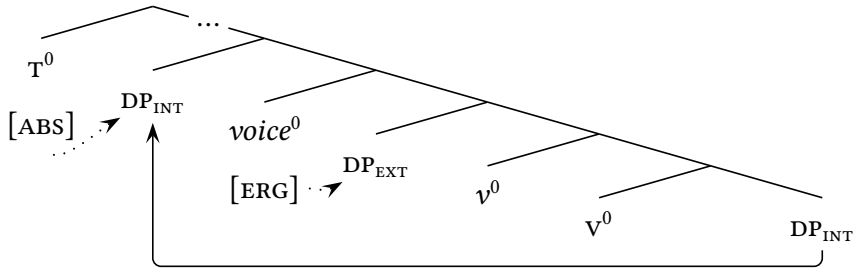
(53) *Finer 1999: ABS Arguments → SPEC,vP in Selayarese*



If we adopt this analysis over Baier 2018's alternative, we come to the view that Mandar and Selayarese show a clausal syntax that is almost exactly the same. Setting aside differences in the labels of heads, more specifically, we can say that each language requires the absolutive DP to raise to the highest A-position in the extended VP: here, SPEC,*voice*P.

With this parallel in hand, we can now draw a link to the syntax of absolutive agreement. We have already noted that almost all the languages of this subfamily require the absolutive DP to control agreement with a probe that sits in the vicinity of T^0. It thus seems eminently plausibly to assume that these languages share the rough syntax in (54): they require the absolutive DP to raise to a structurally prominent A-position, like SPEC,*voice*P, in order to trigger ϕ-agreement and receive abstract absolutive Case from T^0.

(54) *South Sulawesi Subfamily: Rough Clausal Syntax*



In regional perspective, this analysis opens up a valuable analytical link from the languages of South Sulawesi to the many other Western Austronesian languages that show the syntax in (54). It has been proposed that the absolutive DP raises to the highest A-position in the clause in a broad range of languages of the region, including Tagalog (Guilfoyle *et al.*, 1992; Aldridge, 2004), Malagasy (Guilfoyle *et al.*, 1992; Ting, 2022, 2023), Malay and Indonesian (Guilfoyle *et al.*, 1992; Aldridge, 2008; Nomoto, 2013, 2015), Acehnese (Legate, 2014), and Toba Batak (Erlewine, 2018).

This regional connection, in turn, opens up a theoretical result. In many languages of this region, the absolutive DP has long been argued to behave like a SUBJECT in the following sense: it interacts with a closed class of functional heads, receives the highest clause-internal instance of structural Case, and raises to the highest A-position in the clause. In an exacting confirmation of this intuition, moreover, we have seen in Chapter Two that there is very good evidence to suggest that Mandar requires the absolutive DP to raise covertly to a position that sits even higher than SPEC,*voice*P. One line of evidence is presented in (55): certain types of absolutive DPs overtly raise above the auxiliaries.

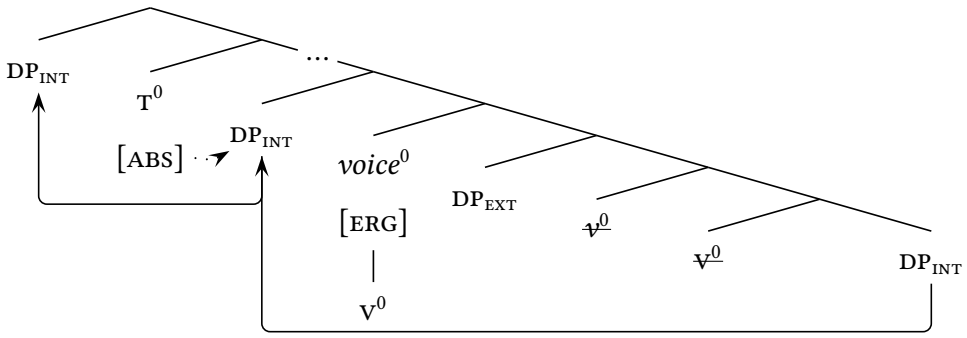
(55) *Certain Absolutive DPs: Visibly Raise Beyond SPEC,VoiceP*

[$_{FP}$ [$_{INT}$ Inggannanna catatang lette] [$_{voice}$ yari i na-hapal ___]]
all footnote DID 3ABS 3ERG-memorize

'He DID memorize all the footnotes.'

Building on this patterns of this sort, Chapter Two argues that Mandar actually shows the clausal syntax in (56): the absolutive DP raises to SPEC,*voice*P and then systematically raises further to SPEC,TP, though it is canonically spelled out in its base position.

(56) *Mandar Clausal Syntax: Absolutive DPs → SPEC,TP*



With this much in place, we can now reposition the facts of Mandar— and Selayarese—within the wider typology of Anti-Agreement Effects. In a typological survey, Baier 2018 claims to identify three types of Anti-Agreement Effect. First, he observes that there are two languages where in-situ WH-phrases trigger special patterns of ϕ-agreement. Second, he observes that many languages show the "classical" pattern of Anti-Agreement from Brandi & Cordin 1989 and Ouhalla 1993, where subject WH-movement disrupts the regular pattern of subject ϕ-agreement. Third and finally, he claims the existence of a third type of Anti-Agreement effect in Selayarese: one on which Anti-Agreement is triggered by WH-movement from many different syntactic positions. The result is the typology in (57).

(57) *Baier 2018's Anti-Agreement Effects*

a. WH-IN-SITU → ✗REGULAR ϕ-AGREEMENT — Abaza...

b. SUBJECT WH-MOVEMENT → ✗REGULAR SUBJECT AGREEMENT — Trentino...

c. WH-MOVEMENT FROM ANY POSITION → ✗REGULAR AGREEMENT — **Selayarese**

Baier 2018 takes this typological picture, which turns on his own reanalysis of Selayarese, to suggest that Anti-Agreement must be delinked from the syntax of subject WH-movement and rehoused within a postsyntactic morphological module. But given the comparative situation and the language-internal evidence in Finer 1999, it seems clear that Baier's reanalysis of Selayarese cannot be treated as an independent pillar in the typology of Anti-Agreement Effects. Removing his reanalysis of that language from the picture, then, we arrive at the revised cross-linguistic typology in (58).

(58) *The Revised Typology*

a. WH-IN-SITU → ✗REGULAR ϕ-AGREEMENT — Abaza...

b. SUBJECT WH-MOVEMENT → ✗REGULAR SUBJECT AGREEMENT — Trentino...

In light of this result, I reject Baier 2018's claim that there is a theoretical connection between these two phenomena. More specifically, I argue, Baier 2018's morphological analysis may be correct for the phenomena in (58a)—where in-situ WH-phrases trigger special patterns of ϕ-agreement—but not for the syntactic phenomenon in (58b)—where subject WH-movement triggers disruptions of the canonical pattern of ϕ-agreement. And from this point on, I will use the term "Anti-Agreement" to refer to the one pattern in (59).

(59) *Definition: The Anti-Agreement Effect*
The term "Anti-Agreement Effect" refers exclusively to the pattern by which ϕ-agreement with the subject is disrupted in cases of subject WH-movement.

With this much in place, we can now begin to see the lines of theoretical framing that wil guide our investigation as it takes on texture and depth. As the Mandar Anti-Agreement Effect is tied to extraction from the highest clause-internal A-position, I assume that it is specifically linked to the network of syntactic constraints that govern WH-movement of the structural subject. On this view, we can link this particular effect in Mandar to the broad range of Anti-Agreement Effects that are observed in the contexts of subject WH-movement elsewhere. Since the seminal work of Brandi & Cordin 1989 on Trentino and Fiorentino, this type of pattern has been found in many varieties of Berber (Ouhalla, 1993; Ouali, 2008; Shlonsky, 2014), in Welsh (Borsley *et al.*, 2007; Erlewine, 2020), in many Bantu languages (Cheng, 2006; Henderson, 2006, 2009a,b, 2013; Schneider-Zioga, 2007; Diercks, 2009), in the Tupi language Karitiana (Storto, 1999; Erlewine, 2020), and in many others. This parallel allows us to ground our investigation of Mandar within the wider theoretical framework that emerges from this literature—drawing upon it to identify the questions that will guide our investigation and leveraging our results, in turn, to weigh in on the fundamental debates over the nature of the Anti-Agreement Effect.

In tandem with this result, we can now begin to integrate our investigation of Mandar with the wider literature that studies the constraints that govern WH-movement of subjects more broadly. Building from the previous literature, then, we can begin to imagine a range of theoretical connections between the Anti-Agreement effect in Mandar and the theories of Criterial Freezing (Rizzi, 2006; Rizzi & Shlonsky, 2007a,b) Anti-Locality (Grohmann, 2003; Cheng, 2006; Schneider-Zioga, 2007; Erlewine, 2016, 2020), and the many other lines of work that emerge from the mysteries of subject WH-movement.

Against this backdrop, we can now reorient our investigation of Mandar around the following network of theoretical questions:

(60) *The Guiding Questions of our Investigation*

a. What is the specific syntax to WH-movement of the absolutive DP in Mandar, and how does it fit into the typology of strategies to subject extraction?

b. What is the relationship between the particular syntax of WH-movement of the absolutive DP and the disappearance of absolutive agreement in Mandar?

c. What is ultimately so special about WH-movement of subjects, after all?

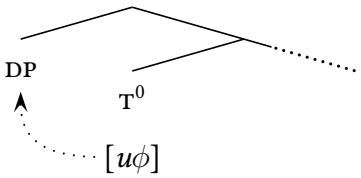
2 The Syntax of Subject Extraction

The natural place to start, as we turn to this new set of questions, is with the narrative that emerges from that paradigm of work that situates the Anti-Agreement Effect within the syntax. The intuition that underlies this literature is one that was formulated very early, by Brandi & Cordin 1989, and it is one that emerges directly from the study of ECP effects that took a central theoretical position in the era of GB. This is the hypothesis that, in at least some languages, WH-subjects fail to pass through the usual subject position as they move to the left periphery—put succinctly, WH-phrases that move to SPEC,CP often skip SPEC,TP (Rizzi, 1982). This starting hypothesis is summarized below.

(61) *Starting Hypothesis: The Syntax of the Anti-Agreement Effect*
The Anti-Agreement Effect ultimately emerges from a general syntactic constraint: in many languages, WH-subjects fail to move into the regular subject position.

Within this framework, the Anti-Agreement Effect emerged in a natural way from the contemporary technology of agreement. Kayne 1989, in his analysis of past-participle agreement in French, proposed that the structural configuration that gave rise to ϕ-agreement was that in (62): DPs only trigger agreement with the head whose specifiers they occupy.

(62) *Spec-Head Agreement*



Against this backdrop, Brandi & Cordin 1989 argue that the subject must occupy SPEC,TP (their SPEC,INFLP) to trigger the regular pattern of ϕ-agreement with the head T^0 (their INFL^0) in Trentino and Fiorentino, two languages of Northern Italy. This pattern of agreement is shown in Fiorentino in (63): the subject *La Maria* "Maria" controls an independent exponent of ϕ-agreement in T^0 (spelled out as *la*) and a second instance of ϕ-agreement on the verb (with the two cases of agreement linked by a form of concord).

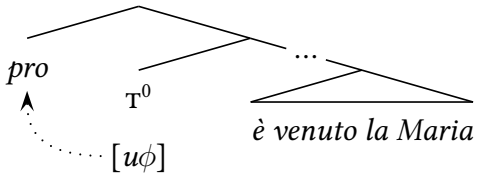
(63) *Brandi & Cordin: Agreement in Fiorentino*
[$_{\text{INFLP}}$ La Maria **la** [$_{\text{VP}}$ parla]].
the NAME 3SG.FEM.AGR speaks
'Mary speaks.'

In the contexts where the subject remains low in these languages—as in (64)—Brandi & Cordin 1989 then observe that both patterns of ϕ-agreement are disrupted. Thus the regular exponents of ϕ-agreement in T^0 are replaced in Fiorentino with the default *gli*.

(64) *Brandi & Cordin: No Agreement with Low Subjects*
[$_{\text{INFLP}}$ ___ **gli** [$_{\text{VP}}$ è venuto la Maria]].
3SG.NEUT.AGR is come the NAME
'Maria has come.'

Brandi & Cordin 1989 take this pattern to emerge from the theory of agreement in (62): T^0 (their INFL^0) can only agree with its specifier, and as a result, it is forced to target a null expletive SPEC,TP (their SPEC,INFLP) when the subject sits outside this position. Agreement is then disrupted, they argue, because these expletives have third-person singular features.

(65) *Brandi & Cordin: The Syntax of Agreement in Fiorentino*

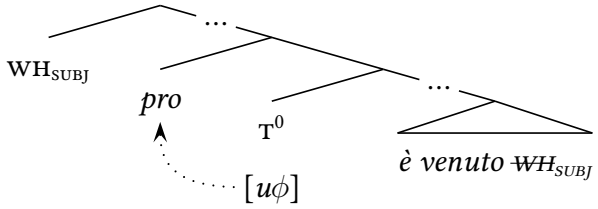


Brandi & Cordin 1989 then observe that the same disruption emerges in cases of subject WH-movement. The key pattern is shown in Fiorentino in example (66): when the WH-subject *quante ragazze* "how many girls" raises to the left periphery, the agreement in T^0 (their INFL^0) takes the default form *gli* and not the expected 3PL.FEM form *le*.

(66) *Brandi & Cordin: The Anti-Agreement Effect in Fiorentino*
[$_{\text{CP}}$ Quante ragazze [$_{\text{TP}}$ ___ **gli** [$_{\text{VP}}$ è venuto ~~q.~~ ~~ragazze~~ con te]]]?
how many girls 3SG.NEUT.AGR is come with you
'How many girls (it) has come with you?'

As a result, they argue, WH-subjects must not move to the left periphery from the usual subject position. In clauses like (66), rather, that position must host an expletive—and in particular, an IT-expletive that always carries third-person singular ϕ-features.

(67) *Brandi & Cordin: The Syntax of Agreement in Fiorentino*



The account that emerges from these ingredients, then, has the following shape.

(68) *Brandi & Cordin's Theory of the Anti-Agreement Effect*

a. In some languages:

i. WH-subjects do not move to SPEC,CP from the usual subject position

ii. …and the usual subject position must then be filled by an expletive.

b. The properties of expletives determine the distribution of Anti-Agreement:

i. Some expletives have 3SG ϕ-features; trigger default ϕ-agreement (Fiorentino)

ii. Others get ϕ-features from the subject; yield regular ϕ-agreement (Italian)

The strength of this account lies in the way that it derives the Anti-Agreement Effect from independent and well-established systems in the syntax. To begin, it is a trivial fact that some subject expletives have default 3SG ϕ-features (like *it*) and others inherit their ϕ-features from the subject (like *there*). Second, it is completely clear that WH-movement of the subject fails to proceed from the canonical subject position in many languages (Rizzi, 1982)—a fact reiterated and reillustrated with great force in the Anti-Agreement literature (Campos, 1997). Third, it is clear that in many such cases, the canonical subject position is filled by an expletive. This fact can be seen clearly in Yiddish (Diesing, 1990), where the subject position must be filled by *es* in embedded clauses that launch subject WH-movement. Very similar patterns have also been noted in Danish (Müller & Ørsnes 2011, though see Engdahl 1985; Vikner 1991 for differing perspectives).

(69) *Yiddish: Embedded Subject WH-movement → Subject Expletive*

Ikh	veys	nit	[$_{CP}$ ver	[$_{TP}$ *(**es**)	iz	*t*	gekumen.]]
I	know	not	who	it	is		come

"I don't know who came." Diesing 1990

In light of this strength, it is no surprise that the analysis in Brandi & Cordin 1989 has risen to become something like a standard approach to the Anti-Agreement Effect. Campos 1997, for instance, demonstrates that Brandi & Cordin 1989's analysis is superior to several alternatives that have been proposed for the Anti-Agreement Effect in Trentino and Fiorentino (Suñer, 1992; Ouhalla, 1993) and shows that it makes correct predictions in Spanish and Galician as well. In Bantu, moreover, this basic account has been developed and extended in various ways to account for a range of parallel effects—which have been argued to emerge from the requirement that something special fill the subject position in contexts of apparent subject WH-movement by Schneider-Zioga 2007 and Diercks 2009.

2.1 The Status of the Subject Position

This theoretical footwork allows us to understand the rough syntax that lies beneath cases where subject WH-movement forces the regular pattern of subject agreement to take a default form—as attested in Trentino, Fiorentino, and many Berber and Bantu languages. But against this backdrop, it is interesting to note that—in surface-oriented morphological terms—there is also a second type of Anti-Agreement Effect. Beyond the cases where subject WH-movement forces out default agreement, Ouhalla 1993, (see especially fn. 8) observes that there are also cases where subject WH-movement forces subject agreement to disappear entirely. Ouhalla 1993 takes this second pattern to emerge under cases of subject WH-movement in Breton and Welsh, and he also identifies it in the construction that emerges under "subject" relativization in Turkish (itself a complex topic: Knecht 1985; Kornfilt 1997, 2000; Cagri 2005). Following Ouhalla 1993, then, we can divide the attested typology of Anti-Agreement Effects into the two classes below.

(70) *A New Typology of Anti-Agreement Effects*

a. TYPE ONE: SUBJECT WH-MOVEMENT → DEFAULT SUBJECT AGREEMENT
Trentino, Fiorentino; Berber; Bantu

b. TYPE TWO: SUBJECT WH-MOVEMENT → TOTAL LOSS OF SUBJECT AGREEMENT
Breton, Welsh; Turkish

This surface-level divide is important for the following reason: we see the second pattern in Mandar (and also in Selayarese (Finer 1997, 1999)). In the contexts where we might reasonably expect to see a null subject expletive—such as clauses built around weather verbs—we do indeed see a default pattern of absolutive agreement in Mandar (70a) (and similar patterns hold across the South Sulawesi subfamily: Jukes 2006; Kaufman 2008). But in the contexts where absolutive DPs are extracted—such as transitive clauses that show WH-movement of the INT—absolutive agreement disappears entirely (70b).

(71) *The Second Pattern of Anti-Agreement: Total Loss of Subject Agreement*

a. Urang **i** [*pro*]
rain 3ABS it
'It's raining.'

b. [$_{WH}$ Cl. inna] ___/*i [$_{voiceP}$ na-fokusang ___ di buku miccoe'-na]?
fn. which 3ABS 3ERG-focus on in book next-3GEN
'Which footnote will he focus on in his next book?'

The result is that we can add the Anti-Agreement Effect in Mandar (and the parallel effects in Selayarese and the other languages of the South Sulawesi Subfamily) to the second surface-level category of Anti-Agreement Effects, along the lines in (72).

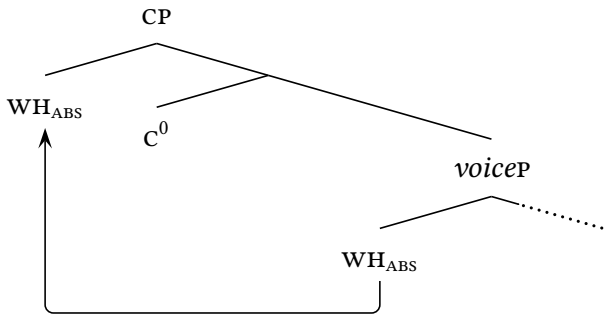
(72) *The Revised Typology of Anti-Agreement Effects*

a. DEFAULT SUBJECT AGREEMENT: Fiorentino...

b. TOTAL LOSS OF SUBJECT AGREEMENT: **Mandar**...

Given the theoretical complexity that lies beneath facts of morphological exponence, we are not yet in a position to draw any syntactic inferences from this initial observation. But in the cases where agreement is suppressed entirely, Ouhalla 1993, (fn. 8) observes, it is possible to imagine a second analysis of the Anti-Agreement Effect: one on which the head that triggers subject agreement—rather than agreeing with a special element in its specifier—is deleted entirely. The rough shape of this second account is shown in (73).

(73) *Ouhalla 1993, Footnote 8: A Second Syntax to Anti-Agreement?*



This type of account, unlike the analysis in Brandi & Cordin 1989, raises a number of steep and pressing questions that will ultimately lead us to the foundations of the theory. The first of these, which prompts Ouhalla 1993, (fn. 8) to abandon this account, is not so bad: how does the subject get Case without T^0? But beneath this initial issue lies a series of much more serious mysteries that would emerge if this analysis were correct: (*i*) how can the syntactic systems that construct the clausal spine allow T^0 to disappear? (*ii*) how can WH-movement force the deletion of a head? And in a derivational framework, (*iii*) how could interaction with C^0 possibly derail the behavior of the lower head T^0?

It is thus a significant fact indeed that a strand of the literature on Anti-Agreement has since argued for something like (73): subject WH-movement requires the deletion of functional structure in the middle field (Shlonsky, 2014; Erlewine, 2016; Pesetsky, 2021). In the sections that follow, then, we will return to the syntax of subject WH-movement in Mandar to weigh the empirical necessity of such an account.

2.2 A Second Correlation

In order to gain some empirical purchase on this second hypothesis—that subject WH-movement somehow forces the destruction of functional structure in the middle field—it will be useful to begin with a well-studied system in which this effect seems to occur. This is the WH-system of English. The standard diagnostics provide little evidence for the existence of null expletives in that language: in English, for instance, the expletive subjects of weather verbs and existential clauses must be overt (74).[5]

(74) *English: No Null Expletives*

a. *It*/**pro* rained.
b. *There*/**pro* was a flood.

But there is good evidence to suggest that English WH-subjects fail to pass through SPEC,TP in subject WH-questions like (75) (McCloskey, 2000; den Dikken & Griffiths, 2018).

(75) *English: Subject WH-Phrases Skip SPEC,TP*
[$_{CP}$ *Who* [$_{TP}$ ___ [$_{voice}$ left]]]?

We thus arrive at the following puzzle: if English subject WH-phrases sit higher than SPEC,TP (and they do: Pesetsky 1987; Ginzburg & Sag 2000; Agbayani 2000; Messick 2020), then (*i*) WH-moved subjects do not pass through the usual subject position in this context and (*ii*) the language has no null expletives that can be recruited to fill that position, then (*iii*) it would seem that, in subject WH-questions in English, SPEC,TP goes totally unfilled.

In the face of this situation, it is possible to argue—with Messick 2020 and Bošković 2024—that English subject WH-questions show the rough syntax in (76a): SPEC,TP remains empty in a manner that defies the usual requirements of the English T^0. But we can also imagine the alternative syntactic scenario in (76b): one on which the TP is just not built.

(76) *English Subject WH-Questions: is there a TP?*

a. [$_{CP}$ *Who* [$_{TP}$ ___ [$_{voice}$ left]]]?
b. [$_{CP}$ *Who* [$_{voice}$ left]]?

[5] The one corner of English syntax that has inspired sustained theoretical argumentation for the existence of null expletives—as far as I am aware—is the literature on locative inversion constructions. The traditional analysis of these constructions, defended by Bresnan 1994; Culicover & Levine 2001, and Doggett 2004, identifies the initial PP as the structural subject; an alternative strand of the literature argues that the PP is a form of topic and that the subject position is filled by a null expletive (Postal, 1977; Bruening, 2010). See Diercks 2017 for recent discussion and argumentation in favor of the claim that the PP is a subject.

It is against this backdrop that we can observe that there is a second asymmetry between English and the languages where subject WH-movement forces the insertion of an expletive in SPEC,TP. In the languages that use the expletive strategy, as a rule, subject WH-phrases can undergo WH-movement from embedded clauses that are headed by an overt C^0 (Rizzi, 1982). This fact is true of languages where the presence of a null expletive can be deduced from the Anti-Agreement effect, like Fiorentino (77a), and equally true of languages where the expletive can be overtly seen, like Yiddish (77b).

(77) *Subject Wh-Movement via Expletive in Spec,TP: Complementizers Remain Intact*

a. Quante ragazze tu credi [$_{CP}$ **che** [$_{TP}$ *pro* gli [$_{VP}$ abbia parlato *t*]]?
how many girls do you think that it 3SG.NEUT has spoken
'How many girls d'you think have spoken?' Fiorentino; Brandi & Cordin 1989

b. Ver hot er moyre [$_{CP}$ **az** [$_{TP}$ *(**es**) vet *t* kumen]]?
Who has he fear that it will come
"Who is he afraid will come?" Yiddish; Diesing 1990

But in English—where we are now weighing the hypothesis that subject WH-movement disrupts the construction of functional structure in the middle field—we can now note that subject WH-movement from embedded clauses seems to force the suppression of C^0 (78).

(78) *The Comp-Trace Effect*
Who does he fear [$_{?P}$ (***that**) will come]?

There is an enormous literature on the precise interpretation of this fact, and it now seems undeniable that the basic effect has phonological components (de Chene, 2000; Kandybowicz, 2006; Salzmann *et al.*, 2013) but a syntactic core. This is because it emerges in contexts that lack overt C^0s (Kayne, 1979; Bošković, 2021) and because—once the relevant phonology is properly understood—it is possible to show that it emerges in contexts that lack the relevant phonological issue (Brodkin in production). And with this understanding in place, we can now draw a connection to the analysis of this pattern that is put forth in different ways by Rizzi & Shlonsky 2007a and Pesetsky 2021: that for embedded clauses to launch subject WH-movement in English, they must lack the entire CP layer.

(79) *Embedded Subject Wh-Movement in English Proceeds from Reduced Clauses*
Who does he fear [$_{TP}$ will come]?

If this interpretation is correct, we then arrive at the following impression: in English, subject WH-movement appears to disrupt the construction of both the TP and the CP layers.

2.3 The Situation in Mandar

It is against this backdrop that we turn to the particular syntax that emerges in Mandar when WH-movement escapes from embedded clauses. Our starting point is the following: Mandar has an overt complementizer *mua'* that appears in contexts of finite embedding. This c^0 is obligatory after many bridge verbs, like *issang* "know" (80a) and *ua* "say" (80b).

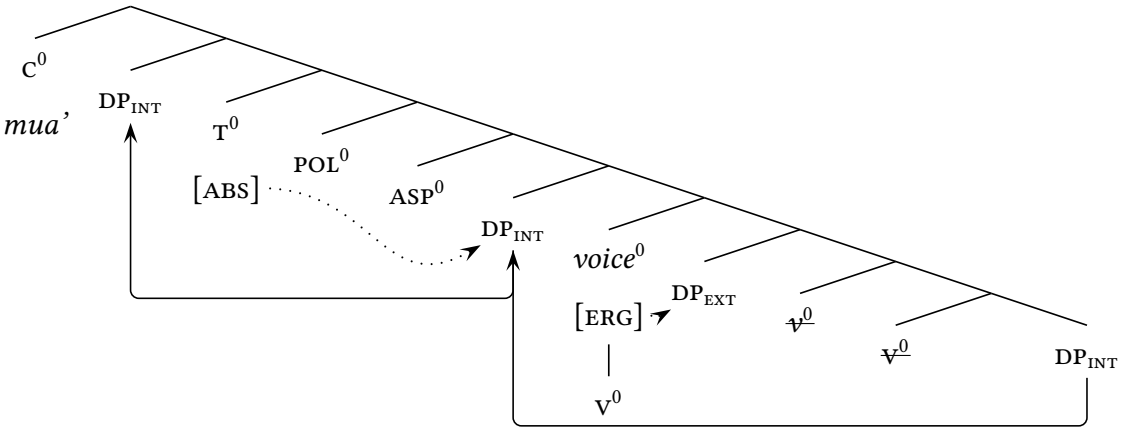
(80) *The Finite Complementizer Mua'*

a. Di-issang nasang i [$_{CP}$ **mua'** na-coro' i setang kocci boyang].
1PL.ERG-know all 3ABS that 3ERG-steal 3ABS demon key house
'All of us know that the demon stole the housekey.'

b. Ndang a' ma'-ua [$_{CP}$ **mua'** u-allai o].
not 1ABS ANTIP-say that 1ERG-blame 2ABS
'I didn't say that I'm blaming you.'

The c^0 *mua'* is historically related to the verb *kua* "say" (via the infixed form *k-um-ua*), and it is cognate to the element *ko* that Finer 1997, 1999 identifies as a c^0 in Selayarese. The usual lines of evidence reveal that this element is synchronically a c^0 in Mandar: (*i*) it forms a prosodic word with the following constituent, as is typical of functional heads (Selkirk, 1995; Itô & Mester, 2009) and (*ii*) it appears in complementary distribution with the irrealis c^0 *anna'*. Most important, however, is property (*iii*): it selects complement clauses of a single and consistent syntactic size. These are clauses that show the rough syntax in (81): they host absolutive agreement, they can contain auxiliaries, and they show all the usual properties of the finite clauses of the language (Chapter Five).

(81) *The Finite Complementizer Mua': Syntax*



The complementizer *mua'* is important for the following reason. The clauses headed by *mua'* are porous to WH-movement of adjuncts, and this is shown in example (82). In that example, the embedded clause *mua' natidoa' i* "that it will be published" launches WH-movement of WH-adjunct *pirang* "when," which raises to the matrix SPEC,CP.

(82) *The Complementizer Mua': Allows Adjunct Wh-Movement*

[$_{CP}$ **Pirang**	i	na-ua	[$_{CP}$ ___	mua'	na-tidoa'	i	___]]?
when	3ABS	3ERG-say		that	will-be published	3ABS	

'When did he say that it will be published?'

When WH-movement targets the embedded subject, however, the pattern is different. It is ungrammatical for WH-movement of the embedded subject to cross the C^0 *mua'* (83a). For WH-movement to target the embedded subject, rather, this C^0 must delete (83b).

(83) *The Comp-Trace Effect*

a. ***Apa** na-ua [$_{CP}$ ___ mua' na-tidoa' ___]]?
what 3ERG-say that will-be published

INTENDED: 'What did he say that will be published?'

b. **Apa** na-ua [$_{?P}$ ___ na-tidoa' ___]]?
what 3ERG-say will-be published

'What did he say will be published?'

The result is that there is an exact correlation between the ways that WH-movement affects the presence of this complementizer and the presence of absolutive agreement. When WH-movement targets adjuncts, it has no effect on either absolutive agreement or the C^0 *mua'*—and thus agreement targets the absolutive DP and the C^0 *mua'* appears. But when WH-movement targets the subject, it affects both: absolutive agreement must disappear and the C^0 *mua'* must be suppressed. In other words, the Anti-Agreement Effect that we have seen correlates in a precise and exacting fashion with a Comp-Trace Effect.

(84) *The Correlation: Anti-Agreement → Comp-Trace Effect*

WH-movement targets:	ADJUNCTS	ABSOLUTIVE DPS
Agreement suppressed?	✗	✓
Complementizer suppressed?	✗	✓

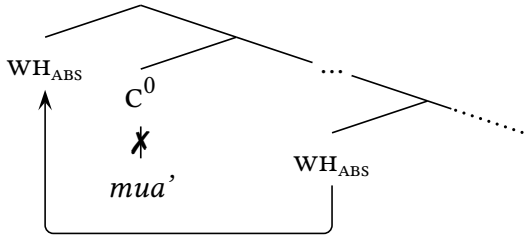
The result is that we arrive at a second difference between Mandar and at least Fiorentino: it is only in Mandar that WH-movement of the subject triggers the total disappearance of absolutive agreement, and it is only in Mandar that it triggers the disappearance of C^0.

Given everything that we have seen so far, the importance of this result is immediately clear. It is clear that there is no issue with the linear sequence C^0+V in Mandar, as the complementizer *mua'* routinely precedes the embedded verb in cases of finite embedding.

(85) *Complementizer-Verb Sequences are Licit in Mandar*
Di-issang nasang i [$_{CP}$ **mua' na-coro'** i setang].
1PL.ERG-know all 3ABS that 3ERG-steal 3ABS demon
'All of us know that the demon stole it.'

Instead, it would seem that the complementizer is forced to disappear when the absolutive DP moves to the embedded clause edge. Abstracting away from the launching site of absolutive WH-movement, we can schematize this restriction as follows.

(86) *The Comp-Trace Effect in Mandar*



We can be absolutely sure that the absolutive WH-phrase passes through the clause edge in this context, in turn, because of the following fact: the quantifier *pira*—which only surfaces in positions along the path of WH-movement—can be stranded at this edge.

(87) *Quantifier Stranding: Absolutive WH-Phrases Pass Through the Clause Edge*
Apa mu-sanga [$_{CP}$ ___ **pira** yari na-tulisi ___ tappa ChatGPT]?
what 2ERG-think ALL DID 3ERG-write without ChatGPT
'What do you think all that he did write without ChatGPT?' (repeated from (60))

The result is that we return to an analytical situation that we have seen before. In our discussion of the Anti-Agreement Effect, we saw that there were two ways to interpret the total disappearance of T^0 in the clauses where WH-movement targets the absolutive DP in Mandar: in terms of morphological suppression of a syntactically active head or in terms of outright deletion of T^0 within the syntax. As we weigh the theoretical force of this Comp-Trace effect, we can imagine the same two possibilities. In surface-oriented terms, we might imagine that absolutive WH-movement forces the emergence of a second C^0, along the lines of Rizzi 1990's analysis of French *qui*, that happens to be null in Mandar. In structural terms, alternatively, we might imagine that what you see is that you get—and that WH-movement of the absolutive DP forces the outright deletion of the head C^0.

Fortunately, there is a straightforward way to decide between these two hypotheses. There is a second way to test for the presence of structure within the CP layer in Mandar, and this is one which turns on a process of movement that targets temporal adjuncts. In the unmarked case, we have already seen, temporal adjuncts surface in a position that follows the *voice*P (88a). But these elements can also undergo a step of movement that places them in a position before all middle-field auxiliaries, along the lines in (88b).

(88) *Temporal Adverb Movement*

a. [$_{\text{POLP}}$ Ndang i yari [$_{\textit{voice}}$ pole sandro dionging]].
not 3ABS DID come shaman yesterday
'The shaman DIDN'T come yesterday.'

b. [$_{\text{MODP}}$ Dionging i [$_{\text{POLP}}$ ndang yari [$_{\textit{voice}}$ pole sandro ___]]].
yesterday 3ABS not DID come shaman
'Yesterday the shaman DIDN'T come.'

This process is useful for the fact that it can always occur in clauses that contain an overt C^0. Thus it is always possible in the various types of embedded clause that contain *mua'*: plain declaratives (89a) and the clauses that launch WH-movement of adjuncts (89b).

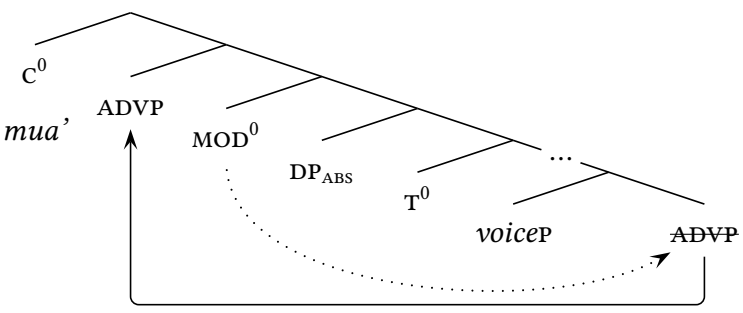
(89) *Temporal Adverb Movement: Possible in Clauses that Contain C^0*

a. Ma'-ua i iAli [$_{\text{CP}}$ **mua'** [$_{\text{MODP}}$ **dionging** i na-pittama setang _]].
ANTIP-say 3ABS NAME that yesterday 3ABS 3ERG-seize demon
'Ali said that yesterday he was seized by the demon.'

b. Jas sapa i na-ua [$_{\text{CP}}$ **mua'** [$_{\text{MODP}}$ **dionging** i na-pittama _ _]]?
hour which 3ABS 3ERG-say that yesterday 3ABS 3ERG-seize
'What time did he say that yesterday he was seized?'

It thus seems reasonable to assume that this step of movement is driven by a functional head—plausibly identified as Rizzi 2004's MOD^0—that sits beneath *mua'*, as in tree (90).

(90) *Temporal Adverb Movement: Targets SPEC,MODP*



This footwork sets up a prediction about clauses that launch absolutive WH-movement. On the view that the suppression of the C^0 *mua'* is a surface-level phenomenon that turns on the presence of a null C^0, we should expect that these clauses will tolerate the usual pattern of movement (91a). But on the alternative view that takes the disappearance of C^0 to reflect a fact of syntax (C^0 is absent), we might expect to see the scenario in (91b): the disappearance of C^0 may correlates with the loss of a higher position for these adjuncts.

(91) *Temporal Adverb Movement: Diverging Predictions*

a. NULL-C ANALYSIS: $[_{CP}\ t_{ABS}\ \emptyset_{C}\ [_{MOD}$ ✓ADVP … $[_{voiceP}$ … ___]]]

b. NO-C ANALYSIS: $[_{?P}$ ✗ADVP t_{ABS} … $[_{voiceP}$ … ___]]

It is the second approach whose predictions are borne out. In the clauses that launch absolutive WH-movement, it is impossible for temporal adjuncts to take this high position.

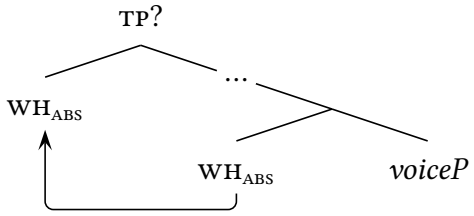
(92) *Temporal Adverb Movement: Banned in Clauses that show the Comp-Trace Effect*

a. Innai na-ua iAli [$_{?P}$ ___ na-pittama setang ___ dionging]?
who 3ERG-say NAME 3ERG-seize demon yesterday
'Who did Ali say was seized by the demon yesterday?'

b. *Innai na-ua iAli [$_{MODP}$ dionging ___ na-pittama setang ___ ___]?
who 3ERG-say NAME yesterday 3ERG-seize demon
INTENDED: 'Who did Ali say yesterday was seized by the demon?'

The force of these facts is to suggest that we are dealing with the syntax in (93): the embedded clauses that launch absolutive WH-movement must lack the syntactic projections that host *mua'* (C^0) and provide the higher position for temporal adjuncts (MOD^0). At present, it will suffice to assume that these clauses must then be TPs—but we will return to the question of T^0, and the analysis of the Anti-Agreement Effect, in Section 4.

(93) *Absolutive WH-movement: Proceeds from Clauses Smaller than CPs*



We thus conclude that Mandar belongs to that class of languages—alongside English, per Rizzi & Shlonsky 2007a and Pesetsky 2021—in which subject WH-movement proceeds from clauses that lack the CP layer. The task before us, then, is to make sense of that fact.

3 The Unfolding Paradigm

Before we advance on the derivational relationship between subject WH-movement and the disappearance of structure in the CP-layer, it will be useful to briefly review the empirical results and theoretical commitments that we have accumulated up to this point. In Section One, we established the following:

(94) *Section One: Summary*

a. The absolutive DP is a subject in Mandar: it receives the highest clause-internal source of Case and raises to the highest A-position in the clause (often covertly).

b. WH-movement of the absolutive DP, like WH-movement of subjects in many languages, triggers a disruption to the usual pattern of highest-DP agreement.

c. This disruption is connected to the specific syntax of subject WH-movement.

In Section Two, in turn, we established the following:

(95) *Section Two: Summary*

a. The interaction between absolutive WH-movement and absolutive agreement in Mandar falls into one of two morphological sets of Anti-Agreement Effects: it forces the complete disappearance of highest-DP agreement, rather than the replacement of the ordinary highest-DP agreement with a default form.

b. The disappearance of absolutive agreement under absolutive WH-movement in Mandar is also correlated with the suppression of complementizers in the same context: the Anti-Agreement Effect correlates with a Comp-Trace Effect (which is absent from languages that show the other type of Anti-Agreement)

c. Independent evidence suggests that the Mandar Comp-Trace Effect involves the deletion of C^0 in the context of absolutive WH-movement, raising the possibility that the Mandar Anti-Agreement Effect involves the deletion of T^0.

The task before us, then, is the following:

(96) *The Theoretical Target*

a. To construct a reasonable theory of how absolutive WH-movement might suspend the usual mechanisms that build syntactic structure within the CP layer,

b. To understand how this system might deliver our Anti-Agreement Effect, and

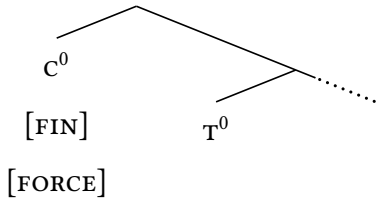
c. To integrate our results with a reasonably general theory of subject WH-movement.

3.1 Structure-Building within the CP

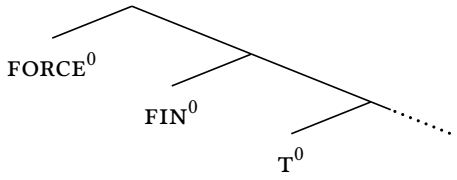
We can begin to advance on this network of theoretical goals with an introduction to the derivational toolkit that will allow us to understand structure-building in the CP layer. Since Rizzi 1997, it has been standard to make two assumptions on the syntax of this layer: (*i*) there is a set of features that each have the capacity to project as independent heads in this space, including minimally [FIN], [FORCE], and the recursible [FOC] and [TOP], and (*ii*) in the default case, these features are bundled together to form a single complex X^0, and at other times, they are split up by derivational mechanisms (e.g., Rizzi 1997's "activation"). The concrete result is that there will be situations where the CP layer is bundled into a single X^0 (97a) and situations where derivational needs force the unfolding in (97b).

(97) *Bundling and Splitting within the CP*

a. *Bundling*



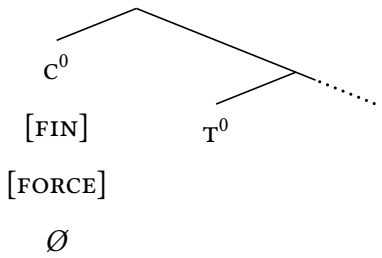
b. *Splitting*



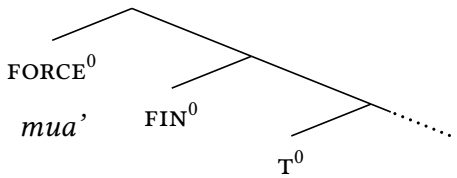
This system provides us with the basic machinery that we will use to understand the interaction between WH-movement and structure-building. Building from Rizzi 1997's analysis of the Comp-Trace effect in English, we can say that absolutive WH-movement forces the pattern of bundling in (98a) in Mandar: when a clause launches absolutive WH-movement, the CP layer must be bundled into a single head (such that certain features fail to project, yielding our "lack of C^0"). In clauses that host the C^0 *mua'*, in turn, we will assume (deviating from Rizzi's analysis of *that*) that we have the unfolded syntax in (98b).

(98) *Asymmetries in Structural Size: Via Bundling*

a. *No c^0 → Bundling*



b. *Overt c^0 → Splitting*



Within this overall framework, we will aim to derive the following network of results. (*i*) The system of bundling must deliver the effects that suggest that "the head C^0 is absent" in cases of absolutive WH-movement: the C^0 *mua'* cannot be present and temporal adjuncts cannot raise to SPEC,MODP, alongside the later patterns that will point to the same result. (*ii*) The process of absolutive WH-movement must force the CP-layer to be bundled in this way, yielding the derivational link from absolutive WH-movement to CP-layer reduction. (*iii*) Some pressure must force the CP-layer to unfold at least partially in all other contexts, delivering the effects that reveal the presence of higher structure in clauses that lack absolutive WH-movement (the presence of overt C^{0}s, the landing site for temporal adjuncts…)

Against this backdrop, our first target is the correlation in (*ii*): absolutive WH-movement must force the CP-layer to be bundled into a single head. This is a correlation that must hold in both Mandar and English, as highest-DP WH-movement triggers Comp-Trace Effects in both languages—and as such, we can safely weigh this hypothesis from the perspective of English first. We can begin with the following fact. In embedded WH-questions in Belfast English, it is ungrammatical for the element *that* to surface in contexts of subject WH-movement (99a). But it is possible for *that* to surface in embedded WH-questions when WH-movement targets other types of constituents, such as the object (99b).

(99) *Belfast English: More Structure in Non-Subject Wh-Questions*

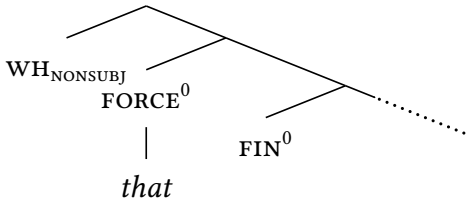
a. *I wonder [$_{\text{CP}-}$ which author *that* ___ wrote the book].

b. I wonder [$_{\text{CP}+}$ which dish *that* they picked ___]. Henry 1995

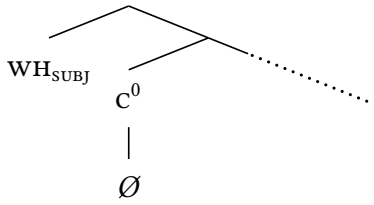
On the vision developed here, we can take this fact as an exact parallel to the Comp-Trace Effect: there is structure built outside the context of subject WH-movement (here the head that hosts *that*) that is suppressed when WH-movement targets the subject. The core intuition is shown in the following pair of trees: the CP-layer unfolds slightly in the context of non-subject WH-movement to create a head that can host *that* (100a), but in the context of subject WH-movement, this step of unfolding is blocked and *that* is out (100b).

(100) *Asymmetries in Structural Size: Via Bundling*

a. *Non-subject Wh-Movement → Split*



b. *Subject Wh-Movement → Bundle*



Within this framework, we can now marshal another line of evidence to reinforce this initial result. Rizzi 1997 notes, citing Baltin 1982, that there is a landing site for topicalization in non-subject relative clauses (101a) but not in subject relative clauses (101b). This pattern suggests that non-subject relative clauses are larger than subject relative clauses in English (Jorge Hankamer, p.c., notes that this is "almost certainly" true of Turkish, too.)

(101) *English: Non-subject Relative Clauses are Larger than Subject Relative Clauses*

a. A man [$_{\text{CP}+}$ to whom [$_{\text{TOPP}}$ liberty [$_{\text{TP}}$ we should never grant *t t*]]]

b. *A man [$_{\text{CP}-}$ who [$_{\text{TOPP}}$ liberty [$_{\text{TP}}$ *t* should never grant *t* to us]]]

Bošković 2024 makes a parallel observation about WH-questions: there is a landing site for topicalization beneath WH-non-subjects (102a) but not beneath WH-subjects (102b).

(102) *English: Non-subject WH-Questions are Larger than Subject WH-Questions*

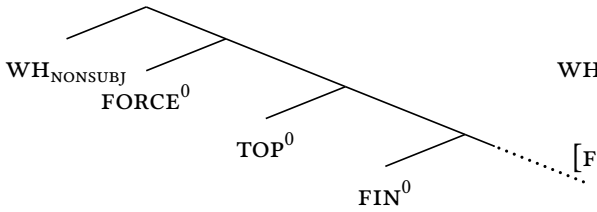
a. Mary wonder [$_{\text{CP}+}$ which book, [$_{\text{FP}}$ for Kim, Peter should buy]].

b. *Mary wonders [$_{\text{CP}-}$ which student [$_{\text{FP}}$ for Kim, should buy that book]].

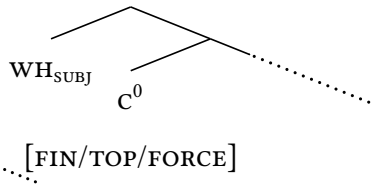
We can take these facts to suggest that non-subject WH-movement triggers the pattern of unfolding in (103a), opening up a landing site for topicalization. Subject WH-movement, however, must force the pattern of bundling in (103b), where the [TOP] feature remains within the head c^0—and thus becomes inactive in a way that we will have to understand.

(103) *Another Structural Aymmetry: TOP^0*

a. *Non-subject Wh-Movement* → *TOP^0*



b. *Subject Wh-Movement* → ✗*TOP^0*



The result is that we arrive, on the basis of old facts in English and new facts in Mandar, at an empirical position that has been defended on independent grounds in many different languages—from clefting in French (Belletti, 2008) to WH-movement and focus-fronting in Defaka (Bennett *et al.*, 2012), Wolof (Martinović, 2015, 2022), and especially the Indonesian language Toba Batak (Erlewine, 2018). This is the correlation in (104).

(104) *Locality and Unfolding*

Non-subject WH-movement requires more structure than subject WH-movement.

3.2 The Mechanisms for Structure-Building

To understand the technical underbelly of this result—that non-subject WH-movement requires more structure than subject WH-movement—it will be useful to turn to the ways in which our essential effect has been addressed in the literature on verb-second effects. An important strand of work on Dutch and German, with its origins in Travis 1984, holds that the finite main clauses of those language show a similar pattern of variation in size:

(105) *Travis 1984 on Dutch/German*
Subject-initial V2 clauses are structurally smaller than non-subject-initial V2 clauses.

In the expanded-CP framework of Rizzi 1997, Fanselow 2002 states this analysis in the following way: the CP layer projects up to the level of FORCE when it attracts a non-subject to the pre-V2 position (106a), but only projects up to FIN when it pulls up a subject (106b).

(106) *Fanselow 2002: Non-Subject Movement V2 Clauses → Unfolding*

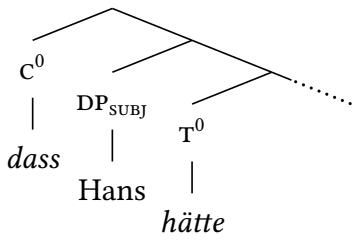
a. $[_{\text{FORCE}}\ \text{XP}_{\text{NONSUBJ}}\ \text{FORCE}^0\ [_{\text{FIN}}\ \text{DP}_{\text{SUBJ}}\ t\ ]\ ]$.

b. $[_{\text{FIN}}\ \text{DP}_{\text{SUBJ}}\ \text{FIN}^0\ [_{\text{TP}}\ t\ \ldots]\ ]$.

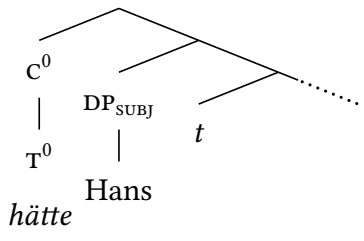
The wider literature on V2 systems, in turn, provides us with a natural mechanism to deliver this pattern of structure-building. Since Den Besten 1983, it has been customary to assume that the verb reaches its high position in German and Dutch through a process of head movement that operates in the syntax—and more specifically, the head-movement that proceeds via *substitution*, per Rizzi & Roberts 1989. In its traditional formulation, this is a process that takes the content of one head and places it into the head above it, replacing other material that might be generated in that position. In the case of T^0-to-C^0, the result is that the head C^0 is literally "replaced" by the head T^0, along the lines in (107b).

(107) *Verb-Second: Substitution Head-Movement*

a. *Starting Configuration*



b. *Substitution*

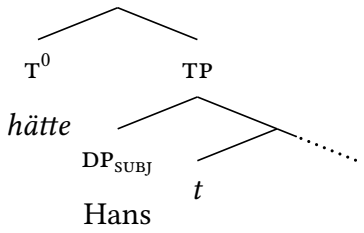


The theory of substitution is useful because it explains the following fact: the heads in the CP-layer cannot host any independent overt content when they are targeted by the step of head-movement that raises the finite verb in German and Dutch (Den Besten, 1983). In this respect, this type of head-movement differs markedly from the process that amalgamates lexical categories with their associated functional structure, like the process that raises v^0 up to the finite T^0 in French (Pollock, 1989). The result is that a long tradition of research draws a syntactic distinction between the two—and within that tradition, our understanding of substitution has since been pushed forward in two significant ways.

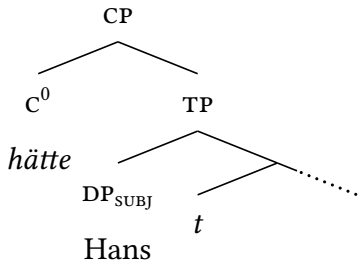
First, the head-movements that proceed through substitution are now understood not to literally "replace" a preexisting head, as in Rizzi & Roberts 1989, but to position heads at the root of the derivation and then allow them to reproject, in a manner that obeys the Extension Condition of Chomsky 2001. In its original implementation in Holmberg 1991 and Ackema *et al.* 1993, then, substitution movement from T^0-to-C^0 proceeds as follows: (*i*) once the TP has been built, T^0 undergoes head-movement to adjoin to the TP, and (*ii*) the moved T^0 then reprojects to head a new XP, labeled CP for purposes of familiarity (momentarily setting aside the profound questions of categorial labels that then emerge).

(108) *Substitution Head-Movement: Revised*

a. *Movement to the Root*



b. *Reprojection*

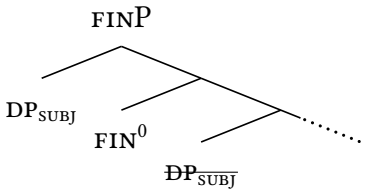


Second, the heads that raise to the root are now understood not to undergo adjunction (as adjuncts are generally understood to be unable to project; Adger 2013; Zeijlstra 2019) but to instead be merged directly with their maximal projections—as if they moved into specifier positions. Building on important precedent in Fukui & Takano 1998; Toyoshima 2001; Matushansky 2006; Vicente 2007, 2009, this position is developed and defended as the specific analysis of substitution-based head-movement Harizanov & Gribanova 2019 and Harizanov 2019. Its force is to allow us to understand the process of reprojection as the natural consequence of the Labeling Algorithm in Chomsky 2013, 2015: when heads are merged with their own maximal projections to yield the configuration $\{X^0\ XP\}$, the Labeling Algorithm will force these heads to pass their labels up to the resultant constituent.

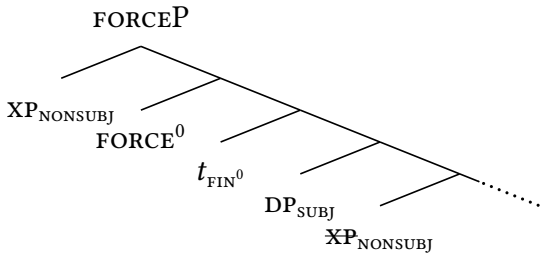
Porting this understanding of head-movement into the system of structure-building, we can schematize our basic effect along the following lines. When the v2 system attracts a subject to the CP-layer in German and Dutch, we can say that the relevant step of movement is triggered by FIN^0 and proceeds to SPEC,FINP (109a). But when the v2 system attracts a non-subject, FIN^0 must first undergo a step of head-movement, merge with its own maximal projection, and reproject as FORCE^0 before attracting its target to SPEC,FORCEP (109b).

(109) *Non-Subject Attraction → Head-Movement*

a. *Subject Movement*



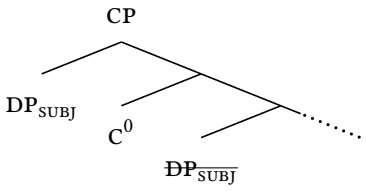
b. *Non-Subject Movement*



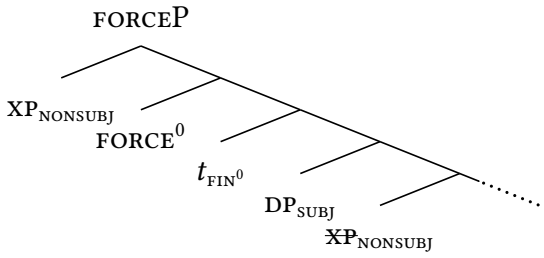
Within the system of Rizzi 1997, however, it is not exactly this type of head-movement—which takes FIN^0, moves it, and relabels it—that lies beneath structure-building in the CP-layer. The guiding intuition of that framework, rather, is this: FIN^0 and FORCE^0 typically form a single head, and when the derivation demands, the subpart of that head that corresponds to FORCE^0 will raise out and project—leaving the FIN^0 subpart in its base position.

(110) *Non-Subject Attraction → Unfolding*

a. *Subject Movement*



b. *Non-Subject Movement*



The result is that the derivational logic of *activation* in Rizzi 1997 and following work—though often masked by the fact that the key discussion proceeds in representational terms—must turn on a process of excorporation, in the sense of Roberts 1991: the CP-layer originates as one head and derivationally unfolds, within successively smaller subparts undergoing head-movement and reprojecting, as the syntax of the CP-layer plays out.

It is at this point, then, that we can begin to see the specific ingredients that we will need to construct a derivational analysis of these effects. At a minimum, we must have: (*i*) some theory of why the bundled head c^0 can attract subjects but seemingly nothing else. This theory must be integrated with the wider literature on strict locality constraints that operate within the CP-layer—and in particular, the study of systems in which the head c^0 can only attract the highest DP. (Shlonsky, 1992; Aldridge, 2004; Branan & Erlewine, 2024). The crucial link in this connection will be the understanding—first articulated, to my knowledge, by Belletti 2008—that strict locality emerges as a correlate of attraction to the specifier of the lowest head in the CP-layer—or in our terms, the fully bundled c^0.

(*ii*) some theory of unfolding which allows successively smaller subparts of the complex head c^0 to undergo head-movement within the syntax and reproject as higher projections. This process must turn on a mechanism that can be reasonably integrated with the wider theory of head-movement in the syntax, and it must also fit neatly with the corresponding process of reprojection that is known from the literature on cyclic agree (Rezac, 2003, 2004; Béjar & Rezac, 2009)—which has independently discovered that successively smaller subparts of probes must be able to reproject in the very same way. This parallel is illustrated in the following diagram, which is drawn from Béjar & Rezac 2009.

(111) *Unfolding* ≈ *Cyclic Agree*

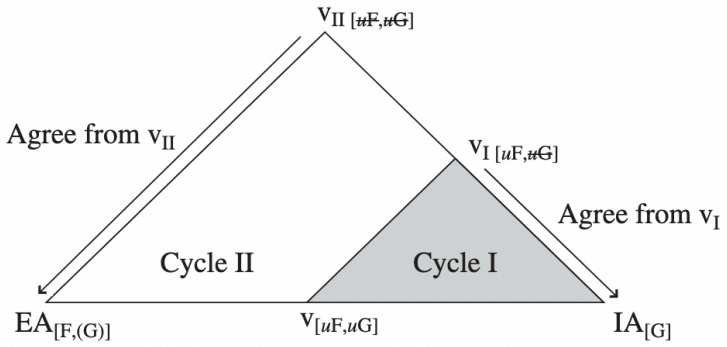


Figure 3
Cyclic expansion of the search space

(*iii*) some theory, formulated in fully derivational terms, that explains why the CP-layer must remain bundled when it attracts a subject and why it must unfold in all other cases—both when it attracts a non-subject and when it attracts nothing at all.

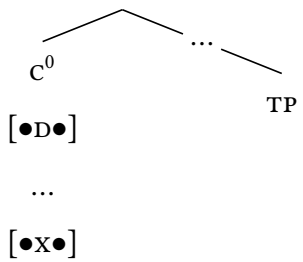
3.3 Bundling and Strict Locality

We can begin to work through this network of desiderata by starting with the easiest: the derivation of strict locality in the CP-domain. It is very common to assume that there is a connection between the locality profile of a given step of movement and the height of its landing site: the higher a given step of movement lands, the more non-local it can be. Within the domain of relative locality, we can understand this connection to emerge from the Feature Ordering Constraint of Giorgi & Pianesi 1997, which holds that—no matter the way in which syntactic features are bundled and distributed across languages—there is a universal ordering to particular types of syntactic features. More specifically, we might assume that within the layer (or perhaps the phase, as follows naturally from the system in Chomsky 2008), there is a restriction on the order of the features that trigger two types of movement: those that trigger strictly local movement must originate *lower*, in some sense, than those that trigger non-local movement. I restate this position in (112) below.

(112) *A Universal Feature Ordering Requirement*
Within each layer of the clause, the features that trigger strictly local movement must originate lower than those that trigger non-local movement.

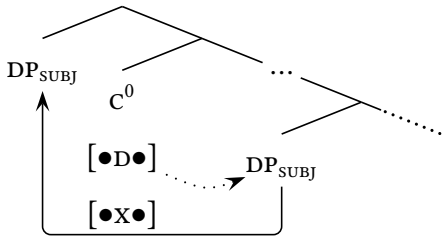
On the understanding that the CP-layer originates as a single head, this restriction delivers the following state of affairs. At the derivational moment where this head C^0 is merged, it must contain all of the features that have the capacity to unfold and surface higher within the extended CP. With much work on the structure of the extended CP (Manetta, 2011; Hsu, 2017), then, we can understand the content of this head to reduce to an ordered stack of features. Setting aside the riddle of the features that define category, we arrive at the following result: the features that trigger strictly local movement—notated [•D•]—must surface before the features that trigger non-local movement (denoted [•X•]) within the initial stack on this bundled C^0. This situation is sketched in tree (113) below.

(113) *Bundled C^0: Ordered Features*



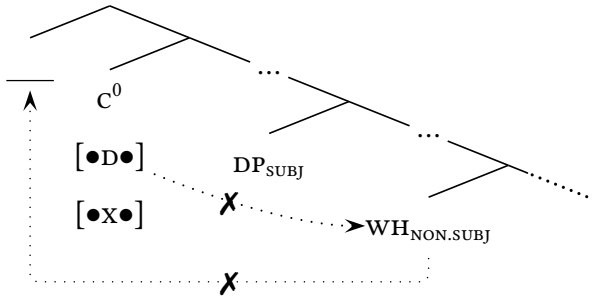
Within this framework, we can understand our first theoretical requirement—that the bundled C^0 attract subjects but seemingly nothing else—to emerge in the following way. At the derivational moment where this bundled C^0 appears at the root of the derivation, it will attempt to discharge the first feature in its stack: [•D•]. Following the standard theory of ATTRACT, the result is that [•D•] will probe its C-command domain in search of an eligible goal to raise to the specifier of this bundled head C^0. Given that this pattern of probing turns on the feature [•D•], it will be forced to target the highest possible DP (for a formalization of this requirement, see Chapter Three). The result is the step of attraction in tree (114): the probe launched by [•D•] on the bundled C^0 must always target the subject.

(114) *Bundled C^0: Strictly Attracts the Subject*



We can now observe the following result: given that the feature [•D•] is the highest feature on the stack of the bundled head C^0, it follows that the bundled head C^0 will never be able to attract anything other than the subject—as [•D•] must pull up the highest DP.

(115) *Bundled C^0: Cannot Attract Non-Subjects*

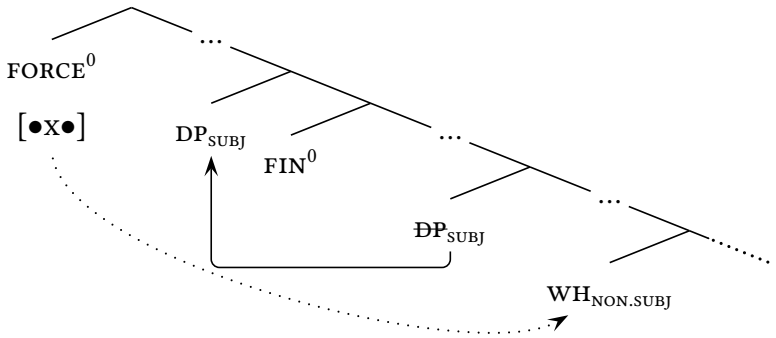


The force of this analysis is to resolve the first theoretical challenge of Section 3.2: when the head C^0 is fully bundled, why is it only able to attract the subject (yielding the descriptive generalization that the CP-layer is always expanded in cases of non-subject WH-movement)? The answer to this question emerges from the following ingredients: (*i*) there is a universal order to features within the CP-layer, after Giorgi & Pianesi 1997, (*ii*) the lowest features in this order are those that force attraction of the closest DP, and (*iii*) and when the CP-layer remains bundled, it is those features that appear at the root.

3.4 The Theory of Unfolding

We can now set the stage for the second theoretical challenge of Section 3.2: what is the mechanism that unfolds the CP-layer in order to allow the attraction of non-subjects? We can begin to resolve this challenge by studying the structure in (117), where the bundled head c^0 has unfolded to the point where the feature [•X•] appears at the top of the stack on the highest head in the CP. Momentarily setting aside the derivational mechanisms that bring us to this point, we should expect the following result: on the theory of movement in Chapter Two, the feature [•X•] should probe its C-command domain, look past the subject, and search for the best possible goal to attract.

(116) *Unbundled FORCE^0: Non-Subject Attraction*

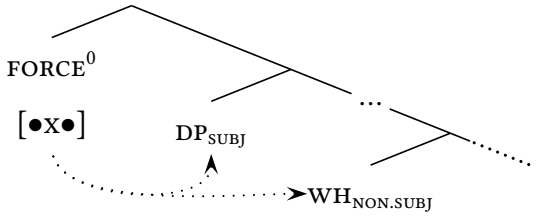


At the derivational moment where [•X•] probes, we can understand patterns of non-local attraction to emerge in the following way. With Chapter Two, I take the features that trigger non-local attraction to be lexically associated with scales of preference like that in (117): the feature [•X•] in Mandar, for instance, might preferentially attract WH-phrases over foci and regular DPs (and see Hedding 2022 and Chapter Two for much finer hierarchies of preferential attraction in a variety of Mixtec and in the Mandar VP).

(117) *Lexically-specified preferences of the feature [•X•] in Mandar:*
WH-phrases > Foci > Regular DPs

Against this backdrop, we can understand non-local attraction to emerge from the interaction of two specific hypotheses. The first is the view that the feature [•X•] launches a type of MULTIPLE AGREE, in the sense of Hiraiwa 2001, 2005 and much subsequent work (Anagnostopoulou, 2005; Nevins, 2007, 2011). On this view, when the this feature probes into its complement, it establishes relationships with multiple possible target at a stage before any movement takes place. The ensuing derivational moment is sketched in (118).

(118) *The Feature [•X•]: Multiple Agree*

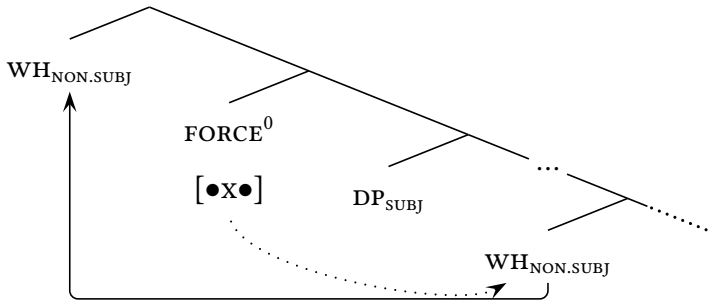


Within this system, we can understand patterns of non-local attraction to emerge from the second hypothesis in (119): as the feature [•X•] weighs multiple possible targets for attraction, it selects among them in a calculus of local optimization. This is one that is familiar from both the literature on Agree (Coon & Bale, 2014; Oxford, 2024) and the literature on Ā-movement (Hedding, 2022), and its guiding principle is presented below.

(119) *Best-Match Attraction* (after Coon & Bale's EPP BEST MATCH)
A probe with a movement-driving feature attracts the closest syntactic object with a match of the highest rank within its search domain.

At the derivational moment in (118), this constraint will force the feature [•X•] to attract the element in its search domain that falls highest on the cline of WH > FOCUS > regular DP. In clauses that contain a regular DP the position of the subject and a WH-phrase or focus in some non-subject position, this feature [•X•] will skip over the subject and attract the WH-phrase or focus to its specifier (120).

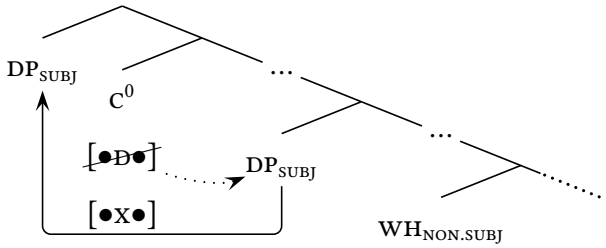
(120) *The Feature [•X•]: Non-Local Attraction*



The result is a system that ascribes a particular syntax to non-subject WH-movement: (*i*) non-subject WH-phrases are attracted into the CP-layer by the underspecified movement-driving features that appear at the edges of syntactic domains—the edge features of Chomsky 2008—rather than specifically relativized features like [•WH•] and [•FOC•], and (*ii*) these edge features, in turn, only become active in the derivation when the CP-layer unfolds to a certain degree—minimally, enough to ensure that [•X•] appears at the root.

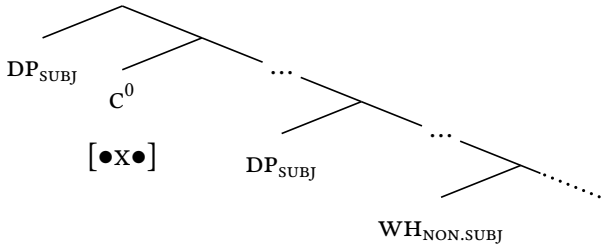
With this much in place, we can now turn to the derivational mechanism of unfolding. Rewinding the clock in our derivation of non-subject WH-movement, we come to a moment with the shape in (121): the bundled C^0 sits at the root of the clause, the feature [•D•] is at the top of its feature stack, and [•D•] probes and makes contact with the subject. In this configuration, we have seen, the feature [•D•] will attract the subject to the specifier of the bundled head C^0 and the feature [•D•] will be checked off at the top of the stack.

(121) *Preparing to Unfold*



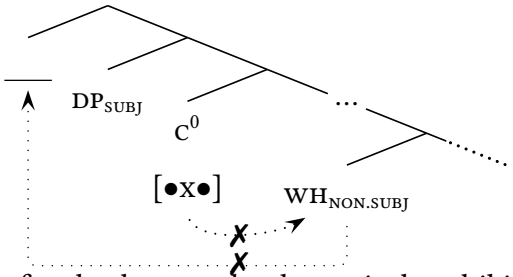
It is in this context that we begin to see unfolding. After the feature [•D•] is checked, the derivation must move on to the next feature in the stack on the bundled C^0. To understand the steps that follow, we can begin with the simplest case: in a derivation where this feature stack is just [[•D•] [•WH•]], the next feature to reach the root will be [•X•].

(122) *The Next Feature on the Stack*



At this derivational juncture, we can now make an empirical case for a theoretical step. Building from our investigation of V2 in German, we want to say that the CP-layer must unfold in order to attract something other than the subject into the left periphery: on Fanselow 2002's analysis, we want non-subject movement to force unfolding to FORCEP. The result is that we need to prohibit the derivational path in (123): it must be impossible, in our system, for the bundled head C^0 to attract a subject by the feature [•D•] and then attract another constituent to another specifier with the feature [•X•].

(123) *No Multiple Specifiers*



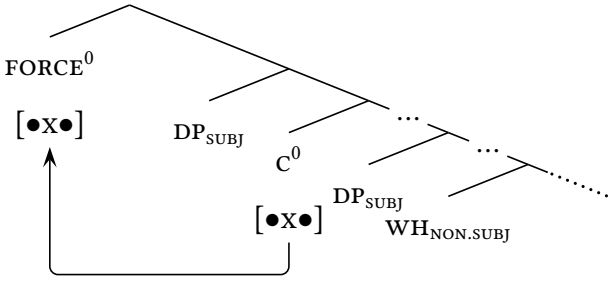
This fact leads us to the theoretical prohibition in (124).[6]

(124) *Proposal*: No Multiple Specifiers

Bundled heads in the CP-layer cannot attract constituents to multiple specifiers.

And this prohibition, in turn, leads us toward the following result: once the bundled head c^0 attracts a subject by the feature [•D•] and the feature [•X•] rises to the top of the stack, it must be impossible for the feature [•X•] to probe and attract another constituent from that position. What is necessary in this context is instead the step in (125): the feature [•X•] must undergo a step of head-movement to the root and then reproject. I will give the head that projects from the feature [•X•] in this way the label FORCE^0, setting aside once again the complex question of categorial labels in this framework.

(125) *Head-Movement and Reprojection*

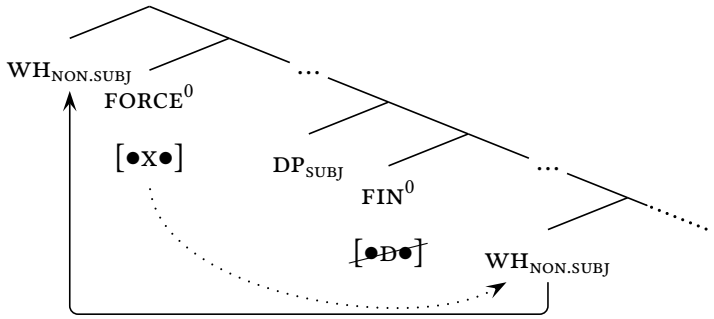


This step of head-movement and reprojection is what makes it possible for the feature [•X•] to attract. On the framework developed here, it is the only way for the CP-layer

[6]It is useful to note, in this connection, that we have already developed an argument against the existence of multiple specifier configurations elsewhere in this thesis: in Chapter Two, we saw that there is no need to appeal to multiple specifiers (and in fact there are very good reasons to avoid them) in the derivation of apparently non-local steps of A-movement in Mandar. This result raises questions for the body of work that has leveraged multiple-specifier configurations to derive apparently steps of A-movement in other languages (McGinnis, 1998, 1999a,b; Rackowski, 2002; Rackowski & Richards, 2005; Coon *et al.*, 2014) and thus may undercut a central line of evidence for the existence of multiple-specifier configurations at large.

to attract anything beyond the subject—as it is the only way to rise above attraction by [•D•]. The result is that this step of head-movement and reprojection is required in all cases where non-subject WH-phrases raise into the left periphery, along the lines in (126).

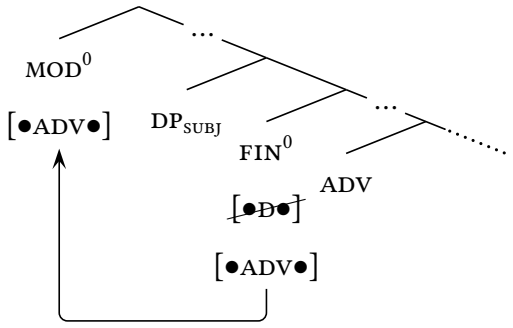
(126) *Reprojection: Enables Non-Local Attraction*



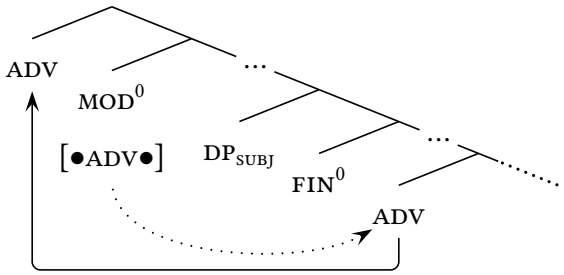
As we expand the inventory of features within the bundled head C^0, we will also see that the same step of head-movement and reprojection is required for all other patterns of non-subject movement into the CP-layer—such as the high movement of temporal adverbs in Mandar, which requires the step of reprojection in (127a) to feed the attraction in (**??**).

(127) *Reprojection: Required for All Non-Local Attraction*

a. *Reprojection of Mod*



b. *Attraction of Adverbs*



We will also see steps of head-movement and reprojection that play out beyond the usual landing site of WH-movement, giving rise to the heads that attract external topics. And we will also see the same steps at play in clauses where the CP-layer attracts nothing at all. The empirical case for this position emerges from the Comp-Trace Effect: in English and Mandar, the distribution of overt C^{0}s suggests that there's no difference in size between the embedded clauses that launch non-subject WH-movement and the embedded clauses that launch no movement—and that clause reduction, understood as the bundling of the CP-layer into a single head, emerges only under WH-movement of the subject (128).

(128) *Reprojection: Operates without Attraction to the CP Layer*

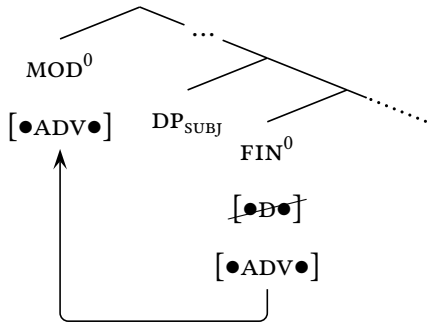
a. Who do you think [$_{\text{FORCEP}}$ that they saw *t*]?

b. It's completely clear [$_{\text{FORCEP}}$ that they saw *Ali*].

c. Who do you think [$_{\text{FINP}}$ *t* saw Ali]?

We can understand the patterns of structure-building without movement to emerge in the following way. On the hypothesis that the CP-layer originates as a single bundled x^0, it would seem that there is no derivational way to ensure that movement-driving features will appear as a "Last Resort" (unlike the EPP-features of Chomsky 2001). The essential problem is this: in a given derivational where the CP-layer must attract some constituent, it is not possible in this framework to externally merge a head with the featural content to attract things in the right way. In order for attraction to occur, rather, a movement-driving feature must be present in the original stack of features that unfolds from the bundled head c^0—and as such, must be present from the moment when c^0 is first merged. But at the moment where the bundled head c^0 is first introduced, it is difficult to imagine how the derivation could possibly "know" what types of movement-driving features will be required downstream. As a result, it seems natural to imagine that there will be situations where external merge introduces bundled c^0s whose stacks contain features that will ultimately be irrelevant within their clause: for instance, a feature that attracts temporal adverbs in a clause that lacks any element of this type, along the lines in (129).

(129) *Features Without Suitable Targets*



Within this configuration, it seems natural to imagine that features of this type—which cannot attract any material into the CP-layer—will still undergo the usual process of head-movement and reprojection. When they reach the root in this context, we can imagine that they trigger a process of probing that *fails*, in the sense of Preminger 2009a,b, 2014—yielding a situation where structure is built without movement taking place.

Stepping back from the details, the wider result is that we arrive at a theoretical stance that has been independently reached by two other lines of research—on attraction to the left periphery (Martinović, 2015, 2022; Erlewine, 2018) and on agreement in the VP (Rezac, 2003, 2004; Béjar & Rezac, 2009). This is the conclusion that—under the circumstances above—subparts of heads must undergo a type of excorporation, move to a higher position, and discharge their derivational features from there. I assume that all known instances of this pattern turn on a single syntactic mechanism, and I will assume further that the same machinery is responsible for the various patterns of *activation* that are argued to operate in the CP-layer by Rizzi 1997. In keeping with the metaphors that have run through our discussion, I will refer to this process as Unfolding. Its formal definition appears in (130).

(130) *Unfolding: Definition*

a. STRUCTURAL DESCRIPTION: in the contexts where a head at the root of a derivation contains a stack of derivational features [F_1, F_2, … F_n], once the highest derivational feature F_1 has already been discharged,

b. STRUCTURAL CHANGE: the remaining stack of derivational features [F_2…F_n] must excorporate, undergo syntactic X^0-movement to the root, and reproject.

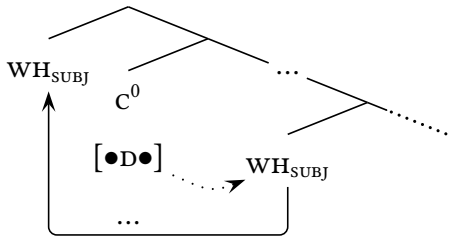
With this much in place, we can return to the second target from the end of Section 3.2. Drawing together our interim results, we can now offer the following answer to the question of why and how the CP-layer expands outside of the context of subject WH-movement: (*i*) the CP-layer prohibits multiple-specifier configurations (which may simply not exist) (*ii*) whenever a bundled head contains two movement-driving features, it discharges one… (*iii*) and the remaining derivational features undergo head-movement together to the root (*iv*) …where they merge with their maximal projections and then project as a new head. (*v*) the new head then proceeds to discharge derivational features from the top of its stack, (*vi*) This process allows features beyond the initial [•D•] to rise to the derivational root, (*vii*) …and so it occurs in all cases where the CP-layer attracts XPs beneath the subject (*viii*) as well as those configurations where the CP-layer attracts no further material at all.

The introduction of Unfolding raises a number of complex theoretical questions that we will investigate in Chapter Seven—from the relevance of semantics and the interaction with vocabulary insertion to the fact that clause size must also be influenced, in embedded contexts, by the selectional properties of embedding heads. But at present, we will set these considerations aside to address the final question of Section 3.2: why is this process exceptionally suspended in the contexts where the CP-layer attracts the subject?

3.5 Structural Collapse

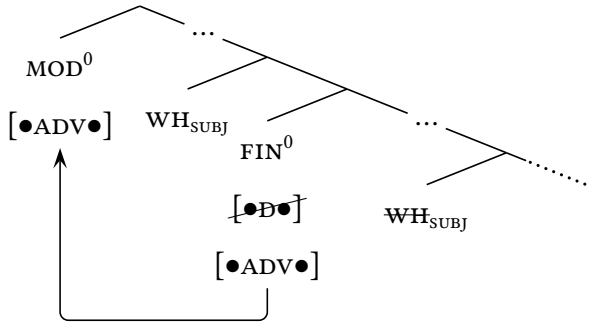
Within the Unfolding framework, the syntax of the CP-layer has a consistent initial shape: the bundled head C^0 begins with the feature [•D•], discharges that feature, and attracts the subject to its specifier. In all the derivations that we have seen so far, however, the feature [•D•] has always found a regular DP in the position of the subject. The task of this subsection is to understand what happens—and in particular, what goes wrong—in the contexts where the subject is a WH-phrase, along the lines in (131).

(131) *Wh-Subjects: What Happens?*



Within the formal system that we have built so far, we should expect to see this result: (*i*) the feature [•D•] will attract the WH-subject to the usual specifier of the bundled C^0, (*ii*) this process will expose a new feature at the root of the stack on that head, like [•ADV•], (*iii*) and that feature—and all those beneath it—will force the usual steps of head-movement and reprojection that build the heads we have labeled MOD^0 and FORCE^0:

(132) *Wh-Subjects: The Expected Outcome*

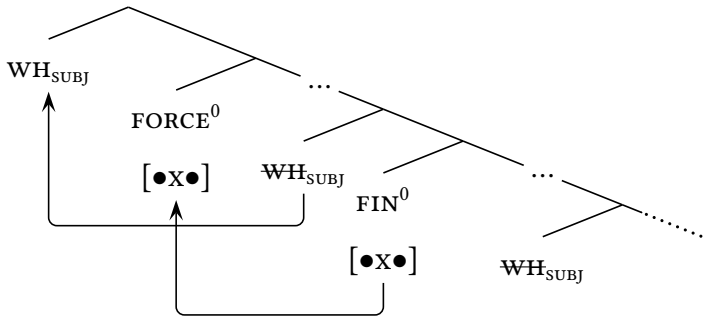


On the empirical side, however, it is immediately clear that this is not what we want. In both English and Mandar, WH-movement of the subject from an embedded clause forces the suppression of overt C^0s. In Mandar, moreover, this pattern correlates with the loss of a high position for temporal adverbs—a position that we have identified as SPEC,MODP. The result is that we must aim for a different result: the CP-layer must stay bundled in the context in (131), with all of its usual derivational features rendered inactive.

How, then, might we force the CP-layer to remain bundled when it attracts a subject? Within the cartographic literature, there is little in the way of derivational precedent: the works that take subject WH-movement to force reduction of the CP-layer, like Rizzi & Shlonsky 2007b and Shlonsky 2014, offer little discussion of the derivational mechanisms that lie behind this result. In the literature on bundling, moreover, the typical solution is to appeal to transderivational comparison. Martinović 2015, 2022, for instance, argues that there is no derivational pressure to suspend the mechanisms of unfolding in the contexts of subject WH-movement. In order to guarantee the relevant patterns of bundling in the contexts where subjects move in her system, then, she suggests the following: (*i*) the mechanisms of unfolding apply freely throughout the course of the derivation, and (*ii*) undesirable steps of unfolding are filtered out by a general economy condition that evaluates entire derivations, selecting those that "check as many features as possible in the smallest span of structure" (Martinović 2022: p107). The result is a system that differs significantly from the feature-driven derivational framework developed here.

Given everything that we have said so far, however, a derivational solution is in reach. In our discussion of WH-movement, we have seen that there are later features on the stack in the bundled head c^0 that will preferentially attract WH-phrases when they surface at the root of the derivation. These are the features that we have denoted [•X•], and in a derivation where these features projected above a subject WH-phrase, we should expect that they would trigger attraction of that element—yielding a configuration that, on the account in Martinović 2015, 2022, would be ruled out by a constraint on global economy.

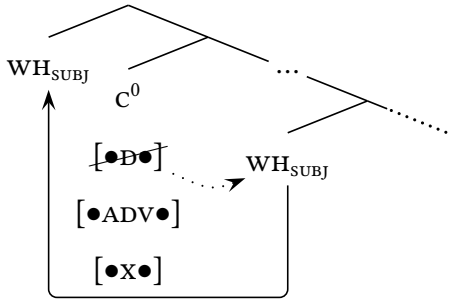
(133) *Rejected Analysis: Reprojection and Reattraction*



The task that falls to us in this arena, then, is one that has a familiar minimalist shape: to move past an analysis built around transderivational constraints of global economy and build an alternative that treats in the derivational terms of local economy (Collins, 1997).

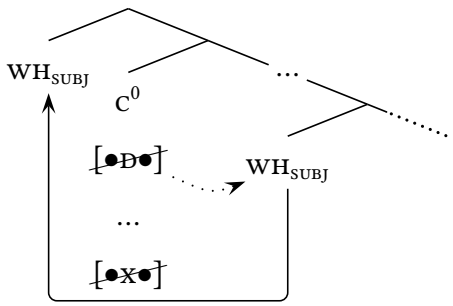
In order to see how our solution must work, we can return to the derivational moment below, where the bundled head C^0 has discharged the feature [•D•], triggered agreement with a WH-subject, and attracted it to its specifier. On the standard theory of AGREE, we can imagine that this process yields the following result: some subset of the features of the WH-subject must be copied back to the head C^0. As such, we can imagine that there are two pieces of information available to that head at the derivational moment in (134): (*i*) it contains a stack of derivational features that now contains [[•ADV•] … [•X•] …], and (*ii*) it has just attracted a constituent that carries the feature [WH].

(134) *Attracting Wh-Subjects: Redux*



In order to suspend the usual process of Unfolding in this context, I propose that the derivational system engages in a particular form of local optimization: one that turns on the logic of *multitasking*, in the sense of Pesetsky & Torrego 2001 and much later work. This is one which weighs the features copied back from the search launched by [•D•] against the other derivational features in the stack on the bundled head C^0, in order to see if the element moved by [•D•] might be eligible to check any other derivational features on that head. In the particular context where the feature [•D•] attracts a WH-phrase, in turn, I propose that a specific interaction must occur: the system of multitasking, recognizing the WH-phrase as the preferred target of attraction for [•X•], must skip through this stack of features to reach [•X•] and check it parasitically on this XP, as in tree (135).

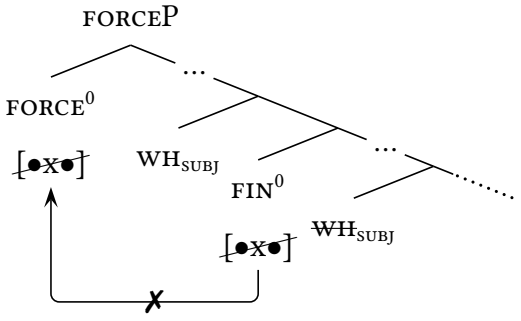
(135) *Attracting Wh-Subjects: Parasitic Checking of [•X•]*



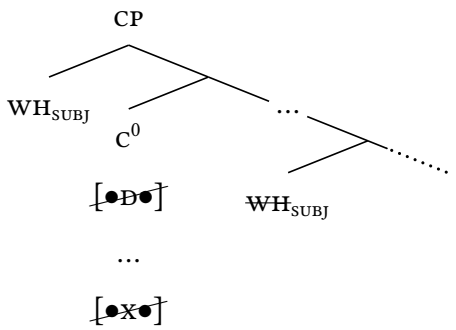
The immediate consequence of this system is that the movement of WH-subjects must defuse the pressure that canonically forces the CP-layer to unfold up to the head FORCE^0. When the feature [•D•] attracts a WH-subject and the feature [•X•] is checked parasitically through that, it is not possible for the feature [•X•] to undergo the further step of unfolding in (136a). Instead, the layer of structure that is usually forced out by the feature [•X•] is simply not built—licensing the exceptional pattern of bundling in (136b).

(136) *Parasitic Checking of [•X•]: Exceptional Bundling*

a. *Impossible: Reprojection*



b. *Necessary: Bundling*



The result is a derivational explanation for the Comp-Trace effect in English and Mandar: subject WH-movement forces the CP-layer to remain bundled because it allows the features that drive Unfolding to be satisfied at an earlier derivational stage.

(137) *Result One: The Comp-Trace Effect*

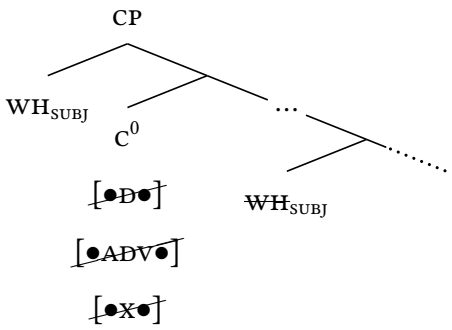
a. Who do you think [$_{FINP}$ *t* saw Ali]?

b. *Who do you think [$_{FORCEP}$ that *t* saw Ali]?

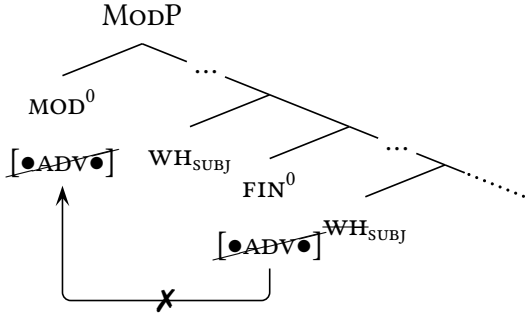
We can leverage the same mechanisms, in turn, to explain the suppression of the high position that attracts temporal adjuncts in Mandar in the same derivational context. If we imagine that the system of multitasking must skip through the feature stack in order to parasitically check the feature [•X•] on the XP attracted by the feature [•D•], then it seems natural to imagine—in a manner that we will justify and extend in Chapter Seven—that this system will suppress all of the derivational features that fall between [•D•] and [•X•]. In this system as we know it so far, where Unfolding operates only within the CP-layer, the result is the following: when the subject is a WH-phrase, the system of multitasking must skip past and suppress the feature [•ADV•], which typically Unfolds to become MOD^0. This effect is sketched in the following pair of trees: (138a) shows the process of skipping through the feature stack and (138b) shows the subsequent ban on Unfolding up to MOD^0.

(138) *Parasitic Checking of [•X•]: Skipping Past [•ADV•]*

a. *Multitasking: Skips Past [•ADV•]*



b. *Impossible: Unfolding to MOD^0*



The result is a parallel derivational explanation to the following contrast in Mandar: subject WH-movement forces the disappearance of the high position for temporal adverbs, prohibiting the step of movement in (139).

(139) *Result Two: Loss of the High Position for Temporal Adjuncts*

*Innai na-ua iAli [$_{ModP}$ dionging ___ na-pittama setang ___ ___]?
who 3ERG-say NAME yesterday 3ERG-seize demon
INTENDED: 'Who did Ali say yesterday was seized by the demon?'

We thus conclude our first study of Unfolding with a derivational theory of *Collapse*: the mechanism of multitasking, defined in (140), that underlies the set of effects above.

(140) *Collapse: Definition*

a. STRUCTURAL DESCRIPTION: when the feature [•D•] on the bundled head c^0 attracts a subject with the feature [WH], and when the bundled head c^0 contains an ensuing stack of derivational features [~~[•D•]~~ … [•X•] …],

b. STRUCTURAL CHANGE: the derivational features between ~~[•D•]~~ and [•X•] are skipped over and the feature [•X•] is parasitically checked by the WH-subject.

Returning to our last target from Section 3.2, then, we can now provide this answer to the question of why attraction of a WH-subject must force the bundling of the CP-layer:
(*i*) the first feature on the bundled head c^0, [•D•], will only ever attract the subject;
(*ii*) but there are many cases where the subject can satisfy later features on the head c^0,
(*iii*) and when the attracted subject is a WH-phrase, this step of movement checks [•X•],
(*iv*) …preventing that feature from driving the step of Unfolding that gives rise to FORCE^0
(*v*) …and suppressing all other derivational features that fall between [•D•] and [•WH•],
(*vi*) thus preventing the steps of Unfolding that yield intermediate projections (like ModP).

Stepping back from this initial foray into the framework of Unfolding and Collapse, we arrive at a theory of subject WH-movement that differs from many earlier perspectives in important and interesting ways. In the languages where subject WH-movement proceeds without the insertion of an expletive in the usual subject position, like English and Mandar, we have argued that it diverges from other types of WH-movement in three ways:

(*i*) Subject WH-phrases must move into a lower position than non-subject WH-phrases. This position has found its motivation in a wide range of facts about English and parallel arguments from the V2 systems of German and Dutch, and it will find further support from a network of effects in Mandar that we will encounter in Section 8. These facts suggest that there cannot be a unified syntactic mechanism that places all types of WH-phrases in a single left-peripheral position, in the tradition of Chomsky 1977 and Rizzi 1997—and demand instead that interrogative WH-phrases are moved to the left periphery in some languages by a conspiracy of distinct steps of movement to distinct syntactic positions.

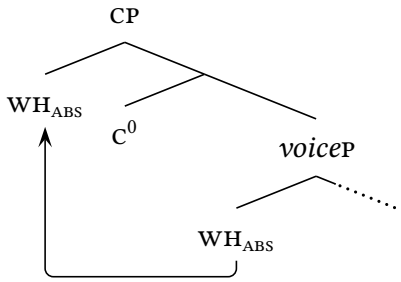
(*ii*) The mechanism that attracts subject WH-phrases into the left periphery must differ from the mechanisms that attract WH-constituents from other positions to their higher position. This conclusion, too, establishes a sharp divide between the framework developed here and those that emerge from the "single landing-site" tradition of Chomsky 1977. In its particular implementation, moreover, it differs in meaningful ways from many contemporary approaches which concur that something different happens to WH-subjects: (α) our approach holds that WH-subjects do move (*cf. e.g.* Amaechi & Georgi 2019), and (β) it avoids the postulation of "mixed A-Ā" probing (*cf. e.g.* Branan & Erlewine 2024) Instead, it holds that the mechanism that attracts subject WH-phrases to the left periphery, in languages of the English and Mandar type, is a step of A-movement to a low position in the CP-layer—on a rough par with the approaches of Belletti 2008 and Bošković 2024.

(*iii*) The A-movement of WH-subjects into the left periphery must derivationally suspend the usual process that builds structure within the CP-layer—understood here as Unfolding, a process of excorporation and head-movement that typically builds out the CP-layer from a single bundled head C^0 (on a par with the mechanisms beneath cyclic agree; Rezac 2003). This strategy of suspension, understood here as a type of locally-optimizing multitasking, differs from two alternative paths to the link from subject WH-movement to CP-reduction: (γ) it respects the No-Tampering Condition of Chomsky 2007 (*cf.* Pesetsky 2021), and (δ) it implicates no transderivational comparison or global economy (*cf.* Martinović 2015).

4 The Bridge

It is against this theoretical backdrop that we return to the Mandar Anti-Agreement Effect. On the understanding that the movement of WH-subjects can suspend structure-building in the CP-layer, it seems natural to interpret the particular variety of Anti-Agreement that emerges in Mandar—where the head T^0 seems to disappear completely—to suggest that the movement of WH-subjects might also trigger the suspension of structure-building within the TP. On the hypothesis that the CP- and TP-layers form an integrated syntactic system (Chomsky 2008, *pace* Rizzi 1997), more specifically, we might imagine that the movement of WH-subjects is able to arrest the pattern of Unfolding that gives rise to the canonical subject position—delivering derivations in which the movement of WH-subjects outright erases the projection TP, along the conceptual lines of Ouhalla 1993's footnote 8.

(141) *The Syntax of Mandar Anti-Agreement*



This analysis—that the movement of WH-subjects destroys the subject position—fits well with the deductive case that SPEC,TP goes missing in subject WH-questions in English (Section 2.X), and in Chapter Seven, we will see that a wide range of patterns converge to show that in Mandar it is correct. As a result, we will be led to extend our theory of Unfolding to the layer of the TP—and in this connection, we will be forced to address two objections that have been raised against this type of analysis by Rizzi & Shlonsky 2007b. Building from the view that subject WH-movement disrupts the usual pattern of structure-building in the CP-layer, Rizzi & Shlonsky 2007b suggest that there are two constraints that restrict the amount of additional reduction that the movement of WH-subjects can force:

(142) *Rizzi & Shlonsky 2007: Two Constraints on Reduction*

a. OBJECTION ONE: the heads that make up the TP-layer must always project, unlike the heads in the CP-layer, which are often bundled together.

b. OBJECTION TWO: there are heads in the CP-layer that must project for semantic reasons, including at least the heads that express tense and interrogative force.

The result is that we will be forced to weigh the questions in (143) as we proceed further into the riddle of the Anti-Agreement Effect:

(143) *The Guiding Questions of Chapter Seven*

a. Syntactic Scale: how much structure-building can be suspended by subject wh-movement, and can this type of suspension extend down to the tp-layer?

b. Semantic Constraints: are there features or projections that must be built for semantic reasons, disrupting (or interrupting) the usual patterns of bundling?

Our narrow study of these affairs, in turn, must play out against a wider investigation that holds itself responsible for the wider issues that emerge as the paradigm of Unfolding is integrated with a theory of the morphosyntax—and must address the issues in (144):

(144) *The Wider Questions of Chapter Seven*

a. What is the relationship between Unfolding and Substitution Head-Movement, such that the heads and tails of chains created by Unfolding can be targeted by Vocabulary Insertion (and be overtly exponed by separate elements), where the heads and tails of the chains created by Substitution Head-Movement cannot?

b. What is the relationship between Unfolding and (Category/Lexical) Selection? How can we square the utility of taking layers to unfold in a bottom-up fashion with the reality that the size of a layer can be determined by a selecting head? How might external selection guide Unfolding in a derivational framework?

Finally, we must hope—looking slightly beyond Chapter Seven—to ultimately situate our theory of Unfolding within a paradigm that aspires to tackle the lofty questions below.

(145) *The Highest Questions on the Horizon*

a. How do Unfolding and External Merge interact to build Extended Projections? Is every Extended Projections built exclusively through Unfolding, or is there any role for External Merge in their construction? If EM has any such role, what of the claim that layers are merged into the derivation as bundled heads?

b. How can Unfolding be situated in a general theory of Extended Projection? Is it possible that the domain of Unfolding extends beyond the notion of "layer", such that the bundled head at the base of each Unfolding derivation contains a full Extended Projection—understood as the span from v^0 to c^0 or n^0 to p^0?

We thus leave the future with a challenging—and extremely exciting—path to pursue.

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