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**Case we can believe in
a radically minimalist proposal**

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0 Introduction

Since it was first formulated in [VERGNAUD 1977; ROUVERET & VERGNAUD 1980] and [CHOMSKY 1980, 1981], case theory has been a central component of generative syntax, and indeed, one of its hallmarks (see [LASNIK 2008] for a historical overview). It is characterised by two principal claims: at least some instances of case involve a formally uninterpretable feature, and this feature is licensed structurally, distinct from lexical selection (hence *structural case*).¹ Moreover, the relevant principles and mechanisms are claimed to be universal.

However, case theory was developed in the seventies and eighties of the last century, and two developments since then make a re-evaluation of its success necessary. Firstly, the advent of the Minimalist Programme has brought with it a far greater focus on the motivation behind syntactic theory. While theoretical elegance has always been a concern, bits of syntactic machinery dedicated to account for one specific syntactic phenomenon are now actively disfavoured. It is uncontroversial that there are lexical entries and that these can be combined through an operation (MERGE), but every element of syntax beyond that should be explainable on the basis that narrow syntax has to interface with phonology and semantics, or by general considerations of operational economy. Therefore, case theory too has to be conceptually justified.

Secondly, the number of publications on case has exploded since [VERGNAUD 1977; ROUVERET & VERGNAUD 1980] and [CHOMSKY 1980, 1981]. Some of these publications appear to show that basic predictions of case theory do not hold universally. To give but two examples: Icelandic and Faroer have VP-internal nominatives, as well as sentences without any overt nominatives. Attempts to account for these results have made case theory more stipulative and complicated, making it that much harder for case theory to live up to the standards of the Minimalist Programme.

In this thesis, I argue that case theory in its current form is not properly motivated, and that it can account for the cross-linguistic data only at the cost of ever more stipulative abstraction. I propose to resolve this through a radical reinterpretation of morphological case as a lexical item, rather than an uninterpretable feature. Consequently, cases are no more universal than other functional lexical items. This gives us the necessary flexibility to account for the different case systems among the world's languages.

To my knowledge, this proposal is new within the minimalist tradition in that it has never been formulated explicitly before. However, many of the individual observations and claims in this thesis have been made before by others, and I have profited greatly from the sources I cite. In particular, my aim has been to take forward the concerns expressed in [CHOMSKY 1998] and pursue them to their logical consequence.

The thesis has two chapters. In the first, I will argue that the two principal assumptions of traditional case theory cannot be maintained. In Section 1.1, I claim that case is not an uninterpretable feature. In Section 1.2, I argue that

¹This also sets it apart from accounts of case in some other theoretical traditions (see [BRANDNER & ZINSMEISTER 2003a])

case is not licensed structurally. Both sections are in turn divided into four subsections.

In the second chapter, I discuss some consequences of these findings. In Section 2.1, I indicate how case could work as a lexical item and what its meaning could be. In Section 2.2, I discuss the consequences of this for the passive and exceptional case marking (ECM) constructions. In Section 2.3, I suggest ways in which feature theory and movement might receive an alternative foundation. I finish with Section 2.4, where I use the results of this thesis to briefly discuss Universal Grammar and the scope of syntax with respect to other branches of linguistics.

1 What case is not

In this chapter, I will try to show that two classical properties of case do not survive close conceptual and empirical scrutiny. First, I claim that case is not a uninterpretable feature. And second, I will review evidence that case is not in fact licensed structurally.

1.1 Case is not an uninterpretable feature

Ask a syntactician to name an uninterpretable feature, and chances are they will mention Case. Nonetheless, I aim to show in this section that this claim cannot be maintained.² In Subsection 1.1.1, I argue that case does not fit the picture of an uninterpretable feature given by [CHOMSKY 1998, 1999, 2001]. In Subsection 1.1.2, I consider and reject the proposal that case is an uninterpretable Tense feature, as suggested in [PESETSKY & TORREGO 2001, 2004, 2006, 2007]. In Subsection 1.1.3, I point out an additional obstacle facing any attempt to license case through AGREE. Finally, in Subsection 1.1.4, I argue that case need not be analysed as uninterpretable.

1.1.1 Case is not like other features

Within minimalist syntax, case has become a conceptual anomaly. It is presented as a feature — Case — but Case does not at all adhere to the properties of features given in [CHOMSKY 1998]. Features are held to come in two types, interpretable and uninterpretable. Also, features may a priori be valued or unvalued. In [CHOMSKY 1998, 1999, 2001], these distinctions are deemed to correspond to one another: a feature is uninterpretable if and only if it is unvalued. In other works, like [PESETSKY & TORREGO 2001, 2004, 2006, 2007], the two parameters remain separate. However, both implementations share the provision that directly or indirectly, uninterpretable and unvalued features like Case have to be rescued by a valued, interpretable counterpart, through the operation AGREE. And this is where Case deviates, since it has no such counterpart.

²That case should be interpretable has been proposed independently and in a very different context by [MANZINI & SAVOIA 2008]. It is also suggested by [BOŠKOVIĆ 2007] as a possible solution for postverbal nominatives.

Instead, in [CHOMSKY 1998] its valuation is resolved through mere stipulation, as a ‘reflex’ of φ -feature agreement.³

If case does not behave like an uninterpretable feature, it is a different concept and, unless we can recategorise it, requires a dedicated syntactic module. This would be an unfortunate outcome, as it would significantly dilute the elegance of minimalist syntax. We can accept it, or try to reanalyse case. In the meantime, the fact that case is nevertheless called an uninterpretable feature is unhelpful, because it conceals the problem.

I will claim in Section 2.1 that cases can be reanalysed as interpretable lexical items, similar to adpositions. For this, I argue in Subsection 1.1.4 that case is not uninterpretable, and in Section 1.2, that case is not structurally licensed. However, before we can proceed, I will try to show in the next two sections that the notion that case is an uninterpretable feature cannot somehow be salvaged.

1.1.2 Case is not uninterpretable Tense

The best attempt I know that tries to make case fit into the mould of an uninterpretable feature is provided by [PESETSKY & TORREGO 2001, 2004, 2006, 2007]. It proposes that case is really an unvalued, uninterpretable Tense feature, making interpretable Tense its counterpart. This approach has been adopted elsewhere, for instance by [BOŠKOVIĆ 2007]. This subsection is devoted to showing that it does not work.

In working out the proposal, [PESETSKY & TORREGO 2001] concentrates on nominative case. This presents the most straightforward case, as subjects are already believed to undergo an AGREE-relationship with the head T, which can plausibly be said to host an interpretable Tense feature. The Tense feature on the subject is valued by the Tense feature on T after the latter has probed the subject for φ -feature agreement. However, while it is fine to postulate such a mechanism on paper, this should be empirically corroborated. And this is where the shoe pinches. For unlike φ -feature agreement, Tense feature agreement does not seem to be realised as phonologically overt tense-case agreement in any of the world’s languages. This problem is acknowledged by [PESETSKY & TORREGO 2001], which tries to counter it by citing examples from the Australian language Pitta-Pitta. I will now examine the relevant data and argue that they do not conclusively demonstrate Tense feature agreement.

The relevant examples from Pitta-Pitta are (1) and (2) ((15) and (16) in the original, with references to [BLAKE & BREEN 1971], [HALE 1998a] and [HALE 1998b]). The sentences in (1) are in the future tense, and there, the marker *-ngu* appears on the subject. The sentences in (2) are in the past and present tense, and no such marker appears. Therefore, Pesetsky & Torrego claim that *-ngu* is a future Tense feature hosted by the subject.

- (1) a. *Ngapiri-ngu thawa paya-nha.*
father-FUT kill bird-ACC

³Note that this is more complicated than simply decreeing that the feature Case be valued, since we also need to stipulate for every syntactic configuration the particular type of case that is assigned.

- Father will kill the bird (with missile thrown).
- b. *Thiti-ngu karnta pathiparnta.*
 elder brother-FUT go morning.
 My elder brother will go in the morning.
- (2) a. *Ngathu manhakurri-nya puri-nha.*
 I.ERG mishandle-PAST money-ACC
 I lost (my) money.
- b. *Ngamari-lu takuku-nha wajama-ya.*
 mother-ERG child-ACC wash-PRES
 Mother is washing the child.

However, the situation is not so simple. As [BOWERN 2001] explains, in the non-future tenses, Pitta-Pitta has a three way ergative-accusative-nominative case split, marking respectively the two arguments of a transitive verb and the sole argument of an intransitive verb. In the future tense, Pitta-Pitta patterns like a nominative-accusative language in the sense that case does not distinguish between the subjects of transitive and intransitive sentences. This means that the marker *-ngu* on future tense subjects has not one, but two counterparts in the non-future tenses: nominative *and* ergative case.

Furthermore, the data from Pitta-Pitta highlighted by [PESETSKY & TORREGO 2001] exemplify just one possible paradigm, which only became common when the language was moribund and stopped being the first language of most of its speakers (see [BOWERN 2001], at the time of [BLAKE & BREEN 1971] there were only two remaining speakers). In the paradigm that was the norm in the 19th century (and still an accepted possibility at the time of [BLAKE & BREEN 1971]), the marking on objects too covaried with tense (this is in fact acknowledged by [PESETSKY & TORREGO 2001]). This is illustrated by (10) from [HALE 1998b], reproduced below. (3-b) exemplifies the new, (3-c) the conservative paradigm. In (3-c), the object carries the marker *-ku*, which does not appear in the non-future tenses ((3-a)).

- (3) a. *Majumpa-lu pukarra-nha thaji-ka.*
 kangaroo-ERG grass-ACC eat-PAST
 The kangaroo ate the grass.
- b. *Majumpa-ngu pukarra-nha thaji.*
 kangaroo-FUT grass-ACC eat.FUT
 The kangaroo will eat the grass.
- c. *Majumpa-ngu pukarra-ku thaji.*
 kangaroo-FUT grass-ACC.FUT eat.FUT
 The kangaroo will eat the grass.

The most straightforward explanation for these facts is to say that *-ngu* and *-ku* are dedicated case morphemes only used in the future tense, and that Pitta-Pitta is similar to split-ergative languages (the difference being that in the non-future tenses, Pitta-Pitta is not ergative, but trivalent). This split system cannot be easily interpreted as case-tense agreement however, because the nominative of the future tense doesn't correspond precisely to either the nominative or the ergative of the non-future tenses. Even if that difficulty could be overcome,

to the extent that Pitta-Pitta supports [PESETSKY & TORREGO 2001]'s claim, other split-ergative languages like Hindi, where ergativity depends on aspect, not tense, provide counter-evidence against it. Finally, the argument can only work if accusative case too depends on the tense of the clause. Otherwise, any other explanation for the future tense object marker *-ku* almost automatically extends to explain the future-tense subject marker *-ngu*. While [PESETSKY & TORREGO 2001] focuses on nominative case, it does tentatively claim that the Tense features on subjects and objects are valued by the same head T. However, it is not clear why this head T should enter into an AGREE relationship with the object, and the idea is discarded in [PESETSKY & TORREGO 2004], where it is instead claimed that the Tense feature on objects is valued by a separate head T in between v and V.

In fact, Pesetsky & Torrego abandon their explanation for the case paradigm of Pitta-Pitta in [PESETSKY & TORREGO 2007]. There, the model they are developing leads them to say that in sentences with sentential subjects like (4) ((26b) in the original), there is Tense agreement between the T head of the matrix clause and the T head of the embedded clause in subject position.

(4) [That John ate dinner] makes Tom happy.

But the two clauses in (4) clearly have different tenses. So Pesetsky & Torrego are forced to say that the Tense feature may actually only have the values + and -, leaving the actual content of the tense as 'encyclopaedic specifications' (ES), in the same way that the animacy feature does not encode anything more about a noun than whether or not it is animate.⁴ This is complicated by the fact that they do want this ES to be shared in some instances of Tense feature agreement (between v and T and between the two heads T of a raising clause) but not in others (the two heads T in clauses like (4)). Also, one might think that the value + would correspond to *finite* and - to *non-finite*, but for their account Pesetsky & Torrego actually need the head T of non-finite clauses to also have the value +.⁵ They admit that "this raises the question what (if any) elements show a negative value for T[ense]" (fn. 34). Without such an element, Tense feature agreement appears rather vacuous. The only suggestion Pesetsky & Torrego have to offer (admitting its speculative nature) is that adpositions might carry a negative Tense feature.

I hope to have shown that the hypothesis that nominative case might simply be unvalued Tense, while in some ways elegant, is nevertheless implausible, because tense-case agreement is seemingly never overtly realised. In addition, it also suffers from the fact that the availability of nominative case in a clause does not in fact depend on ϕ -feature agreement, which is the topic of Subsection 1.2.3. This is also problematic for [CHOMSKY 1998, 1999, 2001], but it

⁴In Subsection 2.3.2 I suggest more generally that features not relevant for discourse structure might be epiphenomenal.

⁵In any case, if the value - were non-finite tense, we would expect subjects to freely show up in untensed clauses, albeit with a case *other than nominative*. The only potential candidates for this case in English are the preposition *for* and the so-called 'null case' of PRO. However, this is a non-starter, since neither option is freely available in non-finite clauses, and null case is highly problematic in any case. Besides, there is no principled reason why negatively valued Tense should only be available with PRO, and force PRO to have an empty phonological realisation.

is especially damaging for any account that intrinsically links the licensing of case to agreement with a head T.

1.1.3 Case is not valued through AGREE

In the previous section, I argued against the claim that case is uninterpretable Tense. Suggestions that case is the uninterpretable variant of any other feature face similar problems. In this subsection, I argue that there is one more issue that is particularly inexplicable for any account that says case is an uninterpretable feature which is valued through agreement, including [CHOMSKY 1998, 1999, 2001] and [PESETSKY & TORREGO 2001, 2004, 2006, 2007].

If case is a feature, then surely the values it can have must correspond to the flavours of case that we know. As discussed in the previous section, we don't in fact see nominative case vary according to the tense of a sentence. That makes tense-case agreement highly suspect, but not completely impossible because in theory the different values of Tense on a subject might receive a uniform phonological realisation in all of the world's languages. Conversely however, the different flavours of case should also correspond to different values of tense, and this is clearly not so.⁶

The idea that structural case is valued through agreement seems incompatible on a very fundamental level with the concept of structural case itself. The core property of structural licensing, after all, is that each type of case is licensed in a particular structural configuration. If, however, case is valued through AGREE, any configuration that licenses case should in principle be able to license any type of case, given the right PROBE, because its feature value is lexically determined and there is no intrinsic reason why this choice should be pre-determined.

The nub of the problem is that case was deemed to be uninterpretable because no fixed meaning could be attributed to types of case like nominative and accusative. However, within the system of [CHOMSKY 1998, 1999, 2001], a feature is only interpretable or uninterpretable relative to the head that hosts it. In particular, the values that a feature may take do have interpretations on a suitable head. It is hard to see how things could be otherwise, since feature values have to have some foundation. Therefore, if nominative and accusative are intrinsically uninterpretable, then case cannot possibly be licensed through agreement.

What seems to be one standard 'solution' to this conundrum is to distinguish between morphological case — which is visible, but plays no role in syntax — and abstract case — which is never visible, but which is the feature that structurally licenses DPs and which is valued through AGREE — and, furthermore, to say that the values of abstract case (if any) don't correspond to nominative, accusative and the like. One drawback is that this appears to complicate the case filter, which now has to account for both abstract and morphological case, and to explain how the two concepts interact (if they do). But more im-

⁶In particular, recall that [PESETSKY & TORREGO 2007] suggests that adpositions might have a Tense feature with a value -. This makes the prediction that the complements of all adpositions have the same case, which is true for English but false in general.

portantly, by explicitly excluding morphological case assignment from what valuation may achieve, this approach sidesteps the real issue at hand.⁷

There is one more angle to the mismatch of values of case and tense. Each clause may contain several instances of case, not generally identically valued. If case is valued by a tense head, this means that there have to be several instances of tense in the clause, not generally identically valued. This is false, one might even say absurd. And clearly the situation does not improve if we instead suggest that case is valued by aspect, or some other head that encodes a unique property of a clause. If case really has an interpretable feature as its counterpart, this has to be hosted by a range of different types of heads, but there are no apparent candidates, which is not strange if one considers that most heads are single-purpose affairs.

The only way this could possibly be resolved while maintaining the notion that case is valued through AGREE is to say that different types of case are uninterpretable counterparts of different features. For instance, nominative case could be uninterpretable Tense, while accusative case could correspond to some feature hosted on *v*. This requires that the flavour of a case can be determined upon merger, which is in fact in line with the proposal of this thesis. However, this seriously complicates the case filter, and it goes against the classical view that the case of a DP can in principle be licensed by any head that licenses case. For example, the object of a transitive verb and the subject of the corresponding passive are thought to enter the derivation in an identical fashion. Also, without appealing to look-ahead, determining the flavour of case upon merger seems only possible if case has some semantic content or if it relates to the order of merger of the relevant arguments, which is paradoxical if different types of case are conceptually unrelated uninterpretable features. All in all then, this strategy cannot square the valuation of case through AGREE with classical case theory.

⁷The explicit proviso that abstract case should have no phonological realisation appears inexplicable if it is a feature. More generally, the question is what remains of abstract case once stripped of its morphological form. The most principled answer to this question is perhaps the most radical one: the choice made by [MARANTZ 1992] and [SIGURDSSON 2003] (amongst others) to completely separate morphological case from abstract case, to stop calling abstract case *case* and to reattribute its purported effects — the licensing of arguments and their movement — to other principles (like the EPP). In effect, this corresponds with the view of case expressed in this thesis. What we end up with is not a theory where case is valued through AGREE.

To its credit, [MARANTZ 1992] also provides an account of morphological case (recently adopted by [BOBALJIK 2008], see also [YIP ET AL. 1987] for a somewhat similar proposal). The realisation of case is relegated to the morphological component. Marantz argues that there are four types of case assignment: lexical, dependent (accusative and ergative), unmarked (nominative and absolutive) and default, which are resolved in that order. Thus, for example, in Icelandic sentences with dative subjects, this case is assigned lexically, and no accusative case is assigned to the object because it is no longer dominated by an unmarked argument belonging to a different chain (a condition for accusative case assignment). The object then receives nominative case through unmarked case assignment. I will not investigate here the descriptive merits of this proposal, but merely observe that this makes morphological case not a regular feature, and that the point which I made in Subsection 1.1.1, that having a dedicated case module should be a solution of last resort only, still stands. I will therefore try a different approach in this thesis.

1.1.4 Case is not uninterpretable

The past two subsections confirm what was claimed in the first, that case is not like regular uninterpretable features. This is problematic in itself, because it means case theory does not reduce to feature theory. In addition, I will now discuss three specific reasons why case should not be seen as uninterpretable at all.

Firstly, [CHOMSKY 1998] formulates the central hypothesis of the Minimalist Programme as follows ((2) in the original):

Theorem 5 *Language is an optimal solution to legibility conditions.*

For features, Chomsky distils from Theorem 5 the following concrete proposition ((33) in the original):

Proposition 6 *Inclusiveness holds of narrow syntax, and each feature is interpreted at the level LF or associated with phonetic features by the phonological component.*

However, Chomsky argues that the phonological component is isolated, and that phonological features play no role in narrow syntax (Saussure's arbitrariness of the sign). So we can restrict our attention to syntactic features, and reformulate Proposition 6 as follows:

Proposition 7 *Each feature active in narrow syntax is interpreted at LF.*

Moreover, it is clear that if we accept Theorem 5, Proposition 7 should also apply to case, whatever its status. Yet case is deemed to be uninterpretable.

Now, [CHOMSKY 1998] makes it quite clear that while the minimalist hypothesis says that language is optimally designed, it is likely to turn out to be false for various elements of syntax, like case. However, that would be truly problematic, because it would mean that we have absolutely no idea why case exists, or why there are different types of case. Chomsky himself states that we should try to find alternative ways in which phenomena like case contribute to Theorem 5. Unfortunately, I will argue in Section 1.2.2 that his proposal, that case is not really an imperfection because it enables displacement, is unconvincing, a conclusion shared by [HAEBERLI 2002]. Instead, I suggest the more straightforward solution that we should seek to attribute meaning to case. Even if the result is not a perfect fit, it would be better than simply admitting defeat.

The second argument against strictly uninterpretable case is more practical in nature. Case (like other syntactic elements) need not always be phonologically realised. Thus, for example, English is thought to distinguish between nominative and accusative case for all nouns, even though this distinction is only realised on pronouns. However, this opens the door to completely 'invisible' cases whose existence, since they are semantically uninterpretable, is very hard

to falsify. The resulting case theory is not a genuine explanation, but a theory-internal device that can fix syntactic derivations at no phonological or semantic cost — what [CHOMSKY 1998] terms an ‘engineering solution’.

The best-known example of such an invisible case may be ‘null case’, whose only function is to license PRO, introduced by [CHOMSKY & LASNIK 1993] despite existing evidence that PRO carries regular case (see the relevant discussion in Subsection 1.2.1). Null case illustrates the danger that in order to get the right syntactic results, a syntactician may always introduce a new type of case that brings with it no semantic responsibilities and that happens to be phonologically invisible.

Similarly, [BELLETTI 1988] proposes that in English existential constructions, post-verbal subjects receive partitive case, an idea adopted by [LASNIK 1992, 1995] and [BOŠKOVIĆ 2007]. To be fair, [BELLETTI 1988] does try to provide a semantic motivation for her proposal. Existential sentences are often deviant if the post-verbal subject is definite (the ‘definiteness effect’). Based on this, she proposes that the partitive case “selects an indefinite meaning for the NP that carries it”. However, that seems to imply a causal relationship that runs contrary to fact — indefinite NPs are allowed in this position because they are indefinite, not vice-versa. It also appears hard to implement in a model where all case is formally uninterpretable and the semantic content associated with inherent case has to come from θ -roles. In addition, definitive arguments are allowed in existential constructions more generally than [BELLETTI 1988] admits (see [WARD & BIRNER 1995] for a good overview). The definiteness effect seems far more amenable to an account in terms of information theory, such as provided by [WARD & BIRNER 1995].

The possibilities for invisible case increase even further if one allows for the presence of multiple cases on one DP. Thus, for example, [BELLETTI 1988] also proposes that quirky subjects in languages like Icelandic receive an invisible nominative case feature on top of their quirky case (‘case stacking’, an idea that [CHOMSKY 1998] adopts (near the beginning of Section 6)). In addition to the conceptual problems indicated above, this proposal faces the specific complication that the ‘objects’ of sentences with quirky subjects are often marked with nominative case, which has to be reanalysed as lexical case or accounted for in some other way. We also have to explain the fact that it is these nominative objects that control agreement, and not the quirky subjects with the hidden nominative case feature.

Finally, to some degree the uninterpretability of case has also been a design choice. By using uninterpretability to account for syntactic phenomena, a liability was turned into an advantage. Thus, for years, the uninterpretability of case was a cornerstone of the standard account of the structural distribution of DPs: in order to rid itself of this imperfection, a DP had to move to a certain position where case could be checked. However, this account has by now been broadly questioned, and in Subsection 1.2.2 I will review the evidence against holding case responsible for movement. More fundamentally, the idea that a feature that makes no semantic difference one way or another should cause the derivation to crash if not checked is perhaps, on second thought, not so credible. Why shouldn’t the semantic interface be able to simply ignore unin-

interpretable elements?⁸

If uninterpretability is not something the derivation cares about, then this suggests that we can readjust our perspective, that the relevant question is no longer whether something is interpretable, but *what is its interpretation?* This would allow us to attribute meaning to case whenever the opportunity presents itself. Rather than two distinct categories, inherent and structural case become two ends of a scale. This in turn enables us to better contend with cases that are hard to categorise, and it provides an explanation for why structural and inherent uses of case can share the same morphological case form.

I will save concrete proposals for the semantic content of case for Subsection 2.1.2. In the next section, I will try to show that case is not licensed structurally. This, together with the findings of this section, will then allow us to reanalyse case as a (functional) lexical item in Section 2.1.

1.2 Case is not licensed structurally

In this section, I aim to show that case is not licensed structurally.⁹ The main obstacle to be overcome here is the claim generally accepted since [VERGNAUD 1977; ROUVERET & VERGNAUD 1980] and [CHOMSKY 1980, 1981] that nominative case, unlike accusative case,¹⁰ is licensed vP-externally: by the head T.¹¹ This seems to have been based on two considerations. First, that in English, nominatives appear to the left of the element that expresses tense, and second,

⁸This is suggested, independently, by [PREMINGER 2011], a work more generally devoted to showing that the uninterpretability of features is irrelevant for AGREE. Starting with [FRAMPTON & GUTMANN 2002], a growing number of authors have argued in favour of a theory where derivations that are incompatible with the interfaces (causing a crash) are not derivable in the first place. For recent work in this direction, see for instance the contributions to [PUTNAM 2010].

⁹Nevertheless, I will continue to use the designation *structural case* throughout this thesis whenever I mean case that is currently thought to be licensed structurally.

¹⁰Titled *Case is Uninterpretable Aspect*, [SVENONIUS 2002a] more specifically claims that the case of Icelandic objects — accusative or dative — is (in some instances) determined by the aspect of the verb, as illustrated by (i) (adopted from (12-a) and (13-a) in the original):

- (i) a. *Hún spreypjar bílinn með málningu.*
she sprays the.car.ACC with paint.DAT
She sprays the car with paint.
- b. *Hún spreypjar málningu á bílinn.*
she sprays paint.DAT to the.car.ACC
She sprays paint on the car.

I am not convinced that these two sentences really have different aspect. However, even if we accept that, alternations like this one are not minimal, because while in (i-a) *the car* supposedly receives accusative case due to the aspect of the verb, in (i-b) it is *paint* that receives dative case. The proposal has more problems. If it accounts for some instances of accusative and dative case in Icelandic, it makes others all the more mysterious. In particular, it appears to clash with the semantic content that dative seems to carry in Icelandic and in many other languages. [SVENONIUS 2002a] reattributes this semantic content to an invisible adposition, but it is unclear why and how this adposition should be able to license an Aspect feature. Finally, if the head that determines the aspect of a clause is merged higher than *v*, and if a subject merges as the specifier of *v*, then the case of subjects cannot also be uninterpretable Aspect, or it would intervene in the AGREE operation that targets the object of a sentence. This means that the cases of different arguments are actually different types of features, an idea which I argued is a non-starter in Subsection 1.1.3.

¹¹Alternatively, the head I. To be consistent, I use T throughout this thesis, even when the authors I cite do not.

that the presence of nominative case depends on whether a clause is tensed. Throughout the years, a third argument has joined these two: nominative case correlates with subject agreement, which is also thought to be initiated by T. I will try to show in the first three subsections of this section that a close look at data from both English and other languages reveals that these three claims do not hold up universally, and that to the extent that they are true, they do not imply that nominative case is licensed by T. Barring strong evidence to the contrary, we should assume that nominative case is not licensed by any other vP-external head either.

If it is true that nominative and accusative case are both assigned vP-internally, there can be no direct evidence for [SIGURÐSSON 2000]’s claim that case is assigned *structurally* within the vP, given that the vP is essentially a black box in languages like English. Occam’s Razor then tells us to assume that the head which selects an argument also licenses its case, meaning that there is no (non-trivial) structural case licensing.

Finally, in Subsection 1.2.4, I discuss [BARÐDAL 2011], which provides some direct evidence against structural case in Icelandic, by showing that although the theory predicts that lexical case is exceptional since it has to be specifically marked in the lexicon, this is not supported by language change and acquisition facts from Icelandic.

1.2.1 Case is not dependent on the value of any functional head

The case theory of [VERGNAUD 1977; ROUVERET & VERGNAUD 1980] and [CHOMSKY 1980, 1981] is relatively simple: nominative case is only available with finite verbs. For the subject of an embedded infinitival, there are two possibilities. If the matrix verb is a so-called control verb, the embedded subject has to be the phonologically empty, caseless pronoun PRO, coreferential with a matrix argument. If the matrix verb is a so-called exceptional case marking (ECM) verb, the embedded subject gets accusative case from the matrix verb.

However, the correlation between nominative case and finite T was then already dubious, because [ANDREWS 1971] (for Ancient Greek, before PRO was even introduced) and [ANDREWS 1976] and [THRAINSSON 1979] (Chapter 5) (for Icelandic) had shown that PRO had to carry ordinary case (including nominative) like any other DP. Since then, this argument has been repeated for Icelandic ([SIGURÐSSON 1991], [SIGURÐSSON 2002b], [SIGURÐSSON 2008]) and many other languages (see [LANDAU 2003, 2004, 2006], especially the last and sources cited therein).

Unaffected by the cross-linguistic data, Chomsky modified his stance with the introduction of a dedicated null case for PRO in [CHOMSKY & LASNIK 1993]. That brought with it the complication that there had to be two superficially identical types of non-finite T, one of which could license null case and one which couldn’t (see [MARTIN 2001]). Furthermore, whichever non-finite T appeared depended on the matrix verb, so in effect, the availability of null case also depended on the matrix verb.

If we reject null case and accept that PRO has normal case, then the only way in which the availability of nominative case continues to depend on the type of T

is that the flavour of non-finite T selected by ECM verbs does not license nominative case. However, even that much does not seem to be true. ECM verbs are not in fact, across the board, incompatible with embedded nominatives (as was perhaps first noticed by [ANDREWS 1982]). The following data from Icelandic have been adapted from examples (78) and (79) of [SIGURÐSSON 2000]. The Icelandic equivalent of *she had suited him well* can appear both in the same order as in English ((8-a)) and with the subject and (dative) object switched around ((8-c)). (8-b) shows that embedding (8-a) in a sentence with the Icelandic equivalent of *believe* leads to a straightforward case of ECM: the originally nominative subject shows up with accusative case. The crucial datum is (8-d), where (8-c) is embedded instead. Here, the fronted, originally dative argument shows up with accusative case, and the other argument keeps its nominative case.

- (8) a. *Hún hafði hentað honum vel.*
 she.NOM had suited he.DAT well.
 She had suited him well.
- b. *Við töldum (hana / *hún) hafa hentað honum vel.*
 we.NOM believed (she.ACC / *she.NOM) have suited he.DAT well.
 We believed her to have suited him well.
- c. *Honum hafði hentað hún vel.*
 he.DAT had suited she.NOM well.
 She had suited him well.
- d. *Við töldum honum hafa hentað (hún / *hana) vel.*
 we.NOM believed he.DAT have suited (she.NOM / *she.ACC) well.
 We believed her to have suited him well.

The correct descriptive generalisation seems to be that in Icelandic, only *preverbal* nominative arguments get accusative case when embedded in ECM verbs.

Interestingly, a similar descriptive generalisation appears to hold for control verbs. (9) has been adopted from [SIGURÐSSON 2000]'s example (86). PRO takes the place of an argument that would otherwise have shown up in the dative, and as in (8-d), the low nominative survives.

- (9) *Mig langaði ekki til að leiðast (þessi stelpa /*
 I.ACC longed not for PRO.DAT to bore (this.NOM girl.NOM /
 *þessa stelpu).
 *this.ACC girl.ACC).
 I didn't want to find this girl boring.

As the data from Icelandic show, it is simply not true that nominative case is not available in non-finite clauses. Rather, ECM and control contexts seem to specifically affect the highest argument of the embedded clause, which in languages like Icelandic need not be the argument that carries nominative case. Therefore, it cannot be said that the availability of nominative case depends on the type of T in a clause.

The availability of accusative case has similarly been linked to the type of v in a clause. However, v is not in general phonologically realised, different values for v were specifically postulated so that accusative licensing would be analogous to nominative licensing. Therefore, if T does not determine the

availability of nominative case, there is no reason to attribute the availability of accusative case to the quality of *v*.

1.2.2 Case is not responsible for movement

The second reason why T was deemed responsible for nominative case by [VERGNAUD 1977; ROUVERET & VERGNAUD 1980] and [CHOMSKY 1980, 1981] was that nominative arguments generally appear to the left of the tensed verbs with which they agree. At first, subjects were simply held to enter the derivation as the specifier of T. This changed with the VP-internal subject hypothesis, originally proposed by [ZAGONA 1982] and now generally accepted, which holds that subjects merge and receive their θ -roles within the VP, and only then move to the specifier position of T. Originally, case was held responsible for that movement: subjects were thought to move to the specifier position of T to check their nominative Case feature. However, not before long this was disputed, notably by [SIGURÐSSON 1989, 1991, 1992] and [SIGURÐSSON 2000], based on data from Icelandic. Crucially, case is no longer the driving force behind movement in Chomsky's most recent model, [CHOMSKY 1998, 1999, 2001]. I will now take a closer look at Chomsky's considerations, before dealing with the challenge posed by [BOŠKOVIĆ 2007].

Given sentences with postverbal nominatives like (10), [CHOMSKY 1998] argues that subject agreement does not necessarily involve movement. Instead, the T head carries a special EPP-‘feature’ which crashes the derivation unless the specifier position of T is filled. It can be filled by the noun that T agrees with, or alternatively by an expletive *there*, if present in the numeration, which is the case for (10).

(10) There was elected an unpopular candidate.

More precisely, Chomsky's account runs as follows. Consider (11), adapted from [CHOMSKY 1998]'s (39), (38) and (43).

- (11) a. T be elected an unpopular candidate
b. [An unpopular candidate]_i T-was elected *t_i*.
c. There T-was elected an unpopular candidate.

Partway through the derivation, we have (11-a). Then, if the numeration is empty, we end up with (11-b) as follows (modulo unnecessary details). The head T has an EPP-feature, which requires that something merge into its specifier. Given that the numeration is empty, this can only be achieved via internal merge, only available as the third and last stage of the operation MOVE, which starts with AGREE and also contains pied-piping. AGREE identifies T as a PROBE, due to its unvalued (thus uninterpretable) ϕ -features. Then AGREE searches the domain of T for a matching GOAL. It finds the head of the subject DP, which has valued (thus interpretable) ϕ -features and is active due to its unvalued Case feature, whereupon both the uninterpretable ϕ -features on T and the uninterpretable Case feature on D are erased by AGREE. In the second stage of MOVE, the GOAL D selects the entire subject DP as the projection that will pied-pipe along with it, and in the third stage it is merged into the specifier

position of the PROBE T by MERGE, thus satisfying its EPP-feature.

The involvement of case in the preceding discussion is more or less accidental. While it does identify the GOAL of AGREE, it does not in itself bring about movement — that responsibility rests solely on the shoulders of the mysterious EPP-feature.¹²

To be sure, the account of [CHOMSKY 1998, 1999, 2001] is not problem-free, as [BOŠKOVIĆ 2007] points out. Successive cyclic movement is generally thought to involve intermediate landing sites, and this is independently enforced by [CHOMSKY 1998, 1999, 2001] through the introduction of phases: constituents are only allowed to move out of a phase by moving through the specifier position of the head of the phase. This means that successive cyclic movement must involve intermediate feature checking, which is questionable in itself. In addition, whether or not these features are present appears to depend on the eventual presence of the feature that the constituent ultimately moves to, necessitating look-ahead.

At the same time, [BOŠKOVIĆ 2007] acknowledges that [CHOMSKY 1998, 1999, 2001] represents an improvement over the earlier minimalism of [CHOMSKY & LASNIK 1993] and [TAKAHASHI 1994], because its derivations satisfy the extension condition and the FORM CHAIN operation becomes unnecessary. Therefore, Bošković formulates a new account that aims to combine the best of both worlds, and to derive the Extended Projection Principle (EPP) without having to appeal to the problematic EPP-feature. Crucially for us, Bošković rejects [CHOMSKY 1998, 1999, 2001]’s assumption that uninterpretable features (like Case) are deleted when their host is the GOAL of some instance of AGREE (e.g. φ -feature agreement), a stipulation already criticised in Subsection 1.1.1. Instead, he posits that an uninterpretable feature may only be deleted by acting as a PROBE, and this requires that it c-commands its GOAL. In addition, Bošković adopts from [PEŠETSKY & TORREGO 2001] the proposal that case is in reality an uninterpretable Tense feature. Consequently, the Case feature of a subject can only be deleted if it moves to the specifier position of T.¹³ The upshot of this is that [BOŠKOVIĆ 2007] once again reserves for case a principal role in movement.

The account of [BOŠKOVIĆ 2007] is persuasive because conceptually it represents a marked improvement over [CHOMSKY 1998, 1999, 2001]. However, it relies on the notion that Tense on T is the interpretable counterpart of the Case feature, a claim I argued in Section 1.1.2 that cannot be maintained. Empirically, its weakest point is exactly the existence of clauses with quirky subjects and clauses with post-verbal nominatives (including existential sentences like 10) that led Sigurðsson and Chomsky to conclude that some other factor apart from case must be responsible for movement (an EPP-feature in the case of

¹²Also, the condition that the GOAL of AGREE needs to be identified by an unvalued feature (the *activity condition*) has been criticised by [NEVINS 2005]. The main argument presented therein is that accusative subjects in Russian appear to move to the subject position despite having no unvalued features.

¹³[BOŠKOVIĆ 2007] proposes that the subject moves through *agnostic movement*, independently introduced by [FRANKS & LEVINE 2006]. The idea is that a constituent with an uninterpretable feature is licensed by LAST RESORT to move to the specifier position of a phase head, as only thus the possibility of checking this feature is left open, the alternative being a certain crash of the derivation.

Chomsky). For existential constructions in English, Bošković adopts [BELLETTI 1988]’s proposal that the postverbal subject gets partitive case from the expletive *there*, which I already criticised in Subsection 1.1.4.¹⁴ For postverbal nominatives, Bošković suggests the following tentative explanations (not mutually exclusive):

- Nominative case may sometimes be interpretable, eliminating the need to move to the specifier position of TP.
- Nominative case is assigned by different heads in different languages.
- Nominative case may be a default case in some languages.
- Post-verbal nominatives are pronounced lower copies of a constituent that did in fact move to the specifier position of TP.

While all these explanations sound plausible enough, they would have to be somehow constrained so as to only apply in the relevant cases, and I see no credible way to achieve that within the existing theory.

Luckily, the advantages of [BOŠKOVIĆ 2007]’s account do not hinge on Case being the feature that drives movement, so we may conclude that it does not and still accept [BOŠKOVIĆ 2007] in a modified form.

Perhaps ironically, the idea that case is not responsible for movement is in line with radical accounts like [SCHÜTZE 2001] and [SIGURÐSSON 2003] that completely disassociate morphological case from abstract case, and hence, movement. However, the downside of this move, as was pointed out in Subsection 1.1.4, is that abstract case has little basis in reality, and the continued use of the designation *Case* by [SCHÜTZE 2001] obscures this. Instead, we should directly talk about movement, its principal remaining function. In Subsection 2.3.1 I suggest that we should try to establish the motivation behind movement by answering the functional question *what difference does a change in word order make?*

1.2.3 Case is not dependent on φ -feature agreement

While in [CHOMSKY 1998, 1999, 2001], nominative case is no longer responsible for the fact that subjects end up in the specifier position of T, it is still linked to T since the valuation of the Case feature is held to be a reflex of φ -feature agreement. However, the empirical correlation between subject agreement and nominative case is not perfect. If anything, the relationship runs in the other direction: whereas subject agreement usually takes place with nominatives, not every DP with nominative case enters into subject agreement. Recall from Subsection 1.2.1 that PRO has case like other DPs, including nominative case, and that postverbal nominatives may show up in untensed sentences in Icelandic (9, repeated below).

¹⁴In addition, in Bošković’s implementation, the postverbal subject is the bare NP and *there* the DP layer of a ‘scattered DP’. It is unclear how to derive this arrangement. It also requires that the articles *a* and *the* and all other deictic elements normally considered to instantiate D or to be specifiers of DP in fact do not.

- (12) *Mig langaði ekki til að leiðast (þessi stelpa /*
 I.ACC longed not for PRO.DAT to bore (this.NOM girl.NOM /
**þessa stelpu).*
 *this.ACC girl.ACC).
 I didn't want to find this girl boring.

In addition, [SIGURÐSSON 2000] notes that for some speakers of Icelandic, agreement with postverbal nominatives in tensed clauses like the following (adapted from (71) in the original) is impossible:¹⁵

- (13) a. *þeim (leiddist / *leiddust) strákar.*
 they.DAT (bored.3SG / *bored.3PL) the.boys.NOM
 They were bored by the boys.
 b. *þeim (líkaði / *líkaðu) ekki þessar hugmyndir.*
 they.DAT (liked.3SG / *liked.3PL) not these ideas
 They didn't like these ideas.

Similarly, [FRANKS & LEVINE 2006] describes a construction in Lithuanian where the case of an embedded object — either dative, genitive or nominative — is determined by the matrix verb (illustrated in (14), adopted from (5)–(7) in the original, with reference to [AMBRAZAS ET AL. 1997]). Crucially, despite the fact that the embedded object may thus get nominative case from the matrix verb, it may not agree with it.

- (14) a. *Pastatė daržinę šienui sukrauti.*
 built.3PL hayloft.ACC hay.DAT keep
 They built a hayloft to keep hay.
 b. *Išvažiavo kelio taisyti.*
 went.3PL road.GEN repair
 They went to repair the road.
 c. *Man nusibosta laikraščiai skaityti.*
 me.DAT bores.3SG newspapers.NOM read
 It is boring for me to read newspapers.

In view of these facts, we can conclude that case is not formally dependent on φ -feature agreement — happily, this dependency is also absent from the model of [BOŠKOVIĆ 2007]. For languages like English, we can do away with object agreement altogether, which is entirely covert, and which seems to have been introduced primarily so that accusative case might be licensed analogously to nominative case.

This conclusion, and the findings of the last two subsections, mean that there is nothing that connects case to T,¹⁶ and we can conclude with [SIGURÐSSON 2000, 2006] and [FRANKS & LEVINE 2006] (for the relevant Lithuanian construction) that nominative case is assigned vP-internally (Sigurðsson's *low nominative hypothesis*). In the final subsection of this section, I will consider some more direct evidence by [BARÐDAL 2011] that there is no structural case.

¹⁵For other speakers, agreement with the post-verbal nominatives in 13 is obligatory, for yet others, it is optional.

¹⁶Or, for analogous reasons, to a head in between vP and T, as proposed by [ALEXIADOU 2003].

1.2.4 Case is not freely available

Apart from the more concrete arguments in the previous subsections, the concept of structural case may also seem desirable because it automates case assignment and therefore constitutes a generalisation. In a language with an impoverished case system like English, it is difficult to test this intuition. Conversely, it makes predictions for a language like Icelandic, which has a great variety of case patterns. In particular, transitive verbs may assign both accusative and dative case to their internal argument. If accusative case is licensed structurally and dative not,¹⁷ it is the ‘automatic’ case that is always available, and can be expected to become more dominant in the course of language change. This final subsection is devoted to some of the findings of [BARÐDAL 2011], which argues that these predictions are not borne out. Looking at recent loan words, long-term language change and language acquisition by children, Barðdal finds that both dative and accusative are lexical cases, and draws the conclusion that structural case licensing does not exist.

Barðdal first considers the productivity of accusative and dative case. Since lexical assignments of case have to be marked as exceptions in the lexicon, the expectation is that with newly borrowed verbs, only structural case assignment should be productive. Correspondingly, we expect new transitive verbs to assign accusative and not dative case to their internal argument. However, contrary to this expectation, the ratio of dative to accusative for borrowed verbs in Icelandic is about the same as for native verbs, as illustrated by the table adapted below (Table 1 in [BARÐDAL 2011]):

Table 1: The differences between nominative-accusative and nominative-dative assignment in various counts of Icelandic

	Dictionary count		Corpus count		Borrowed verbs	
	N	f (%)	N	f (%)	N	f (%)
NOM-ACC	1381	65.2	303	61.7	68	63.6
NOM-DAT	738	34.8	188	38.3	39	36.4
Total	2119	100.0	491	100.00	107	100.00

Crucially, Barðdal also considers how many of the borrowed verbs might follow existing, synonymous verbs in the choice of their case assignment. It turns out that synonymy is no bigger factor for dative than for accusative. In fact, the share of borrowed verbs that correspond to existing synonymous verbs in their case assignment is statistically significantly higher for accusative case (63 out of 68) than for dative case (25 out of 39) (Pearson’s Chi-Square test, $p < 0.0002$, $p < 0.0005$ after Yates’s correction for continuity, $\varphi_c = 0.3596$).

¹⁷Perhaps a clarification is in order here. The operative criterion here for structural licensing is whether a case is licensed by the minimal structure of a transitive verb. Dative case may be licensed by additional structure, but since this structure is semantically or lexically conditioned, it is not automatically available. If both accusative and dative case were always available in transitive structures (and if both are uninterpretable), there would be no way to decide which verb gets which case.

The question is what these data tell us. Barðdal defends the proposition that both dative and accusative case are lexical, and that the case frames of new verbs are generally based on the case frames of synonymous or semantically similar verbs. But this theory of verb formation is still available if accusative case is in fact structural — the operative question simply becomes whether the verb that serves as the model is marked for assigning dative case. The fact that new verbs that take accusative case are indeed modelled after synonymous existing verbs (more often even than new verbs that take dative case), while at first glance suspect, does not in itself change very much about this state of affairs — it could simply be indicative of the fact that accusative case is compatible with a broad semantic range of verbs. What is more interesting is that dative case is not *restricted* to verbs modelled after synonymous existing verbs. If accusative case is structural, it corresponds to the unmarked option in the lexicon, and we should expect it to be the default for new verbs not modelled after existing verbs. So while the argument presented by verb borrowing is perhaps less strong than Barðdal claims, it does suggest that accusative and dative case assignment is not categorically different.

The second issue Barðdal looks at is long-term language change. If structural case is regular and lexical case the exception, then over time the number of lexical case assignments should decrease. However, a comparison between Old Norse-Icelandic and Modern Icelandic reveals that while use of the Dative-Nominative construction has indeed decreased, use of the Nominative-Dative construction has in fact increased, as is illustrated below (adapted from [BARÐDAL 2011]’s Table 3):

Table 2: Object frequency in Old and Modern Icelandic texts

	Old Norse-Icelandic		Modern Icelandic	
	N	f (%)	N	f (%)
DAT-NOM	33	10.0	11	2.7
NOM-ACC	173	52.1	237	58.4
NOM-DAT	105	31.6	141	34.7
NOM-GEN	21	6.3	17	4.2
Total	332	100.0	406	100.00

Barðdal also argues that the nominative-dative construction has not become thematically more regular between Old Norse-Icelandic and Modern Icelandic.

Finally, Barðdal considers language acquisition by children. Here too, the expectation of overgeneralisation in favour of structural case is not borne out, as the following table shows (adapted from Tables 5 and 6 in [BARÐDAL 2011], in turn adapted from [SIGURÐARDÓTTIR 2002] (p. 127)).

Table 3: Children’s errors in the object case marking of nominative-accusative and nominative-dative verbs

verb	NOM	ACC	DAT	indist.
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Nominative-accusative verbs				
<i>baka</i> ‘bake’	4.7	67.4		27.9
<i>brjóta</i> ‘break’	5.8	86.1		8.1
<i>fela</i> ‘hide’	2.3	93.0	3.5	1.2
<i>færa</i> ‘move’	1.2	97.6	1.2	
<i>hræða</i> ‘scare’	4.9	95.1		1.2
<i>lemja</i> ‘hit’	7.0	88.4	3.5	1.2
<i>prjóna</i> ‘knit’	1.2	79.9		19.8
<i>rífa</i> ‘rip’		100.0		
<i>sjóða</i> ‘cook’	1.2	98.8		
<i>skoða</i> ‘observe’	1.2	90.5		8.3
<i>strauja</i> ‘iron’	1.2	94.1		4.7
<i>öfunda</i> ‘envy’	5.3	46.3	45.0	2.5
Nominative-dative verbs				
<i>gleyma</i> ‘forget’	3.6	5.9	89.3	1.2
<i>hrinda</i> ‘push’	5.8	7.0	84.9	2.3
<i>kasta</i> ‘throw’	1.2	5.8	86.0	7.0
<i>læsa</i> ‘lock’	4.7	15.3	78.8	1.2
<i>ná</i> ‘get’	3.5	4.7	90.6	1.2
<i>stela</i> ‘steal’	1.2	9.4	89.4	
<i>stríða</i> ‘tease’	7.0	7.0	84.9	1.2
<i>vorkenna</i> ‘feel sorry for’	7.3	17.1	75.6	

Barðdal argues that while overall, children more often wrongly substitute accusative for dative case than vice-versa, this can be explained on the basis of the relative frequencies of nominative-accusative and nominative-dative constructions in Icelandic, and we shouldn’t in fact expect to see *any* substitution of dative for accusative. Barðdal also points out that nominative-dative verbs do not have a markedly higher token frequency in the way that English strong verbs have, so that this is not a relevant factor. In addition, there is no significant difference between semantically ‘regular’ and idiosyncratic dative assignments.

For reasons of space, I have only discussed three of the arguments given by [BARÐDAL 2011]. Notably, Barðdal also provides evidence against the claim that syntactic operations like passivisation and ECM only apply to structurally case marked constituents. While the facts are potentially open to alternative explanations, together with the previous subsections they provide further confirmation of the idea that the structural licensing of case is a mistaken notion.

2 Consequences

In the previous chapter I criticised traditional case theory. It would not be fair to leave it at that, without offering at least the beginning of an alternative. This is the topic of Section 2.1. Because case theory has been a central component of syntactic theory for many years, changing it inadvertently causes complications elsewhere. In Section 2.2, I will specifically consider how to accommodate

exceptional case marking (ECM) and passivisation. In Section 2.3, I will try to say a bit more about the related topics of movement and feature theory, that I repeatedly touched upon throughout Chapter 1. Finally, in Section 2.4 I will take a step back and discuss some implications of the current proposal for the extent of Universal Grammar (UG), and of syntax in relation to other fields within linguistics.

2.1 Consequences for case

In the preceding chapter, I argued that case is neither an uninterpretable feature nor structurally licensed. What then is case? In Subsection 2.1.1, I will argue that cases are lexical items. In Subsection 2.1.2, I shall investigate their semantic content.

2.1.1 Syntactic form

Everything else being equal, we should not want case to require its own component of grammar. We established in Section 1.1 that case is not an uninterpretable feature, so the null hypothesis should be that case belongs to some other pre-existing category of syntactic objects. The alternative that suggests itself, and that I defend in this thesis, is that cases are lexical items in their own right, merging as independent syntactic heads, very much like adpositions. Happily, this has become feasible since we established in Section 1.2 that case does not require structural licensing and in Section 1.1.4 that case should not be strictly uninterpretable.

That case should correlate with a dedicated head K is not very controversial, at least not for lexical/inherent case, with concrete proposals dating back at least to [FILLMORE 1968] and [ROBINSON 1970]. The idea has been brought up more recently in works like [BITTNER & HALE 1996], [BAYER ET AL. 2001], [KAYNE 2002] and [SVENONIUS 2008]. For example [BAYER ET AL. 2001] proposes that K encodes the morphology of German dative and genitive, while licensing a formal Case feature on its complement DP. But the use of adpositions to express structural case, like ergative in Hindi (15), seems to imply the necessity of a head like K for structural cases as well.

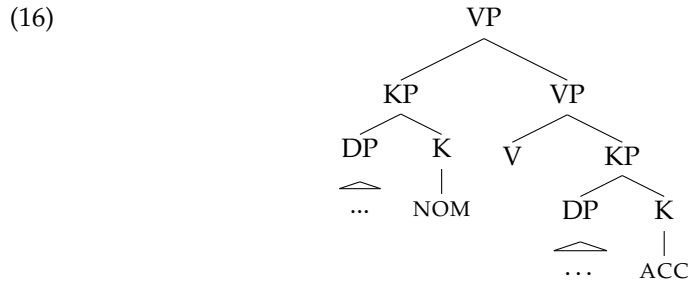
- (15) *mahmūd aur nūre ne bhī apne-apne khilaune*
 mahmūd.OBL and nūre.OBL ERG also REFL.DISTR.M.PL.DIR toy.PL.DIR
peś kie
 presented.M.PL
 Mahmūd and nūre also presented their respective toys. [From the short story *Idgah* by Premchand.]

Correspondingly, [BITTNER & HALE 1996] and [NEVINS 2005] take the position that all instances of case involve K.¹⁸ The current proposal does not then imply a complication in our inventory of lexical items, since it boils down to assuming

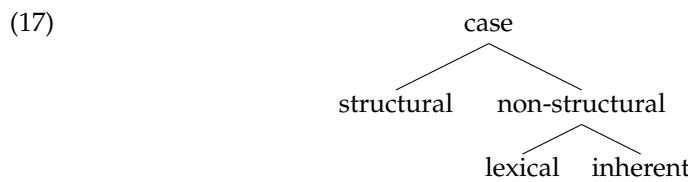
¹⁸Except, in the former case, nominative. This is one possibility I discuss in the next Subsection.

that K not so much assigns case, but that it *is* case.¹⁹ In this, it resembles the proposal of [BITTNER & HALE 1996], where separate Case features are also eliminated. The crucial difference is that for structural case, [BITTNER & HALE 1996] still have K start out empty, to be filled by the structural context (the resulting value necessarily making no semantic contribution).

If cases are lexical items, case assignment becomes case selection. This implies the following initial structure for a typical English transitive verb:



While not strictly necessary for our account, I would like to take a brief moment to argue that we can go one step further by uniting the lexical categories of cases and adpositions (K and P). [WOOLFORD 2006] subdivides the ways in which case is licensed as follows:



We argued in Section 1.2 that there is no structural case. Hence case should always be lexical or inherent. Adpositions can in fact also be characterised thus. An inherent case corresponds to a contentful adposition like *during*, which has a more or less clear independent meaning, and DPs equipped with inherent case to the corresponding adpositional phrase, which can adjoin rather freely to a given structure. A lexical case corresponds to an adposition like *to* when selected by a predicate, or the *by* of passive constructions, whose semantic contribution to its adpositional phrase is far from clear. Note that the dichotomy between inherent and lexical cases and adpositions need not be absolute: a given case or adposition may contribute a certain interpretation and still be selected by a predicate.

The categorial unification of cases and adpositions is supported by the fact that cases in one language correspond to adpositions in another, and vice versa. For example, Japanese expresses nominative and accusative case by the postpositions *ga* and *o*, respectively, and Hindi ergative case by the postposition *ne*. Conversely, the prepositions *of*, *to* and *with* in English and the postpositions *ka*,

¹⁹A priori, cases could also be *interpretable* features. However, the fact that we seem to need the head K anyway makes this a less parsimonious solution. At best, whether case is a lexical item or an interpretable feature could be a language-specific choice.

ko and *se* in Hindi correspond to genitive, dative and instrumental case inflection in other languages.

It appears that the difference between adpositions and cases is solely morphological, so we should assume that they belong to the same syntactic category.

2.1.2 Semantic content

What interpretation should we assign to a particular instance of case? A natural place to start looking is inherent case. This is where traditional case theory appears most inefficient. Since the feature Case was decreed to be uninterpretable, it could not even encode the meaning of uncontroversially inherent case. Formally, an inherently case marked DP would receive its θ -role from and have its Case feature licensed by one and the same head. Having done away with the uninterpretability of case, we may now also resolve this inelegant duplication of labour by postulating that θ -roles constitute the semantic content of case.

At least in one respect, this is a very fortunate wedding. After all, while case is traditionally devoid of semantic content, θ -roles are devoid of phonological realisation. And like case theory, θ -role theory constitutes a separate component of syntax, which we should like to eliminate. We also resolve what used to be the very curious coincidence that while in principle, Case and θ -roles are conceptually unrelated, they correlate in practice since DPs obligatorily need both. And we realise the naive intuition that case is one of the strategies used by languages to encode argument structure.

However, while the inherent cases like instrumental, genitive and dative can be linked to specific θ -roles, we are confronted with the classic observation that there is no precise correspondence between distinct flavours of structural case and distinct θ -roles. I will argue in a moment that the situation may not be so dire, and that we can push the notion of inherent case to include ergative and accusative. But I first want to point out that even in the standard theory, the structural cases of the arguments of a transitive verb are determined by their θ -roles.

One of the most principled accounts of θ -role assignment in Chomskyan syntax is provided by [BAKER 1985]'s Uniformity of Theta Assignment Hypothesis (UTAH) ((47) in Chapter 1):

Theorem 18 (Uniformity of Theta Assignment Hypothesis) *Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure.*

Essentially, UTAH says that the structural context precisely determines the interpretation of an argument, which ideally means that we don't need θ -roles as such. In a minimalist theory, this probably requires that each θ -role corresponds to a dedicated syntactic head because we can no longer distinguish between different ways in which to merge with a head. I don't think such a large number of distinct, apparently invisible heads is conceptually feasible.

At any rate, [LARSON 1990] observes that not even [BAKER 1985] itself completely adheres to UTAH, and (in Subsection 2.3) proposes Relativised UTAH instead:

Theorem 19 (Relativised UTAH) *Identical thematic relationships are represented by identical relative hierarchical relations between items at D-Structure.*

[LARSON 1988, 1990]²⁰ implements this by postulating that the order in which the arguments of a transitive verb merge is determined by a universal hierarchy of θ -roles. This hierarchy was already implicitly present in the original UTAH, where it is realised by the merge sites of the different types of arguments. Some form of Relativised UTAH seems inevitable for any variant of the standard theory that does not want to stipulate the merger sites of arguments lexically. So to the extent that MOVE is non-optional, the cases of the arguments of a transitive verb are determined as soon as they have both been merged, that is, on the basis of their θ -roles.

We could use the θ -role hierarchy that is invoked in Relative UTAH to define the meaning of structural case in a relative manner. It is unclear what parameter the hierarchy expresses, but let's for the sake of argument call it 'control'. Then structural case may denote the relative amount of control of an argument, deciding whether it is the 'controller' or the 'controlee' of a verb. Because this interpretation of structural case is relative, it makes no prediction as to what case intransitive verbs should select. There are four logical possibilities, which would lead to four types of languages. In nominative-accusative and ergative-absolutive languages, intransitive verbs consistently use either one of the two structural cases, in active-stative languages, the case used depends on the argument's position on the θ -role hierarchy, and in tripartite language an altogether different case is used with intransitive verbs.

While we can say to have thus given case some meaning, I think it is possible to be more ambitious, and define the meaning of structural case more directly. This is not unprecedented, ergative case has frequently been argued to be an inherent case associated with the AGENT θ -role ([WOOLFORD 1997] and sources cited therein). It is important to remark here that ergatives are not thought to always be perfect AGENTS, just like datives are not always perfect GOALS. This is not surprising if θ -roles are epiphenomenal.²¹ Given this caveat, we can plausibly view accusative as the inherent case associated with the PATIENT and THEME θ -roles. This leaves only the two remaining structural cases, absolutive and nominative. These have been argued to be one and the same ([WOOLFORD 1997] and sources cited therein), and generally don't cooccur. They could both be seen as semantically underspecified, this is what [JAKOBSON 1936] proposes for Russian nominative. Alternatively, absolutive and nominative case could even be *no case*, a position taken by [BITTNER & HALE 1996]. Either option is

²⁰See also [JACKENDOFF 1990] for a critical response.

²¹To dispute this, one would require an exhaustive classification of the ways an argument may relate to a predicate, into a finite, relatively small number of universal, distinct and clearly defined θ -roles, like AGENT, PATIENT, INSTRUMENT and EXPERIENCER. I believe that the argument space is in fact not discrete, and that this is therefore impossible (see [DOWTY 1989] for some of the complications involved).

supported by the conclusion of [SCHÜTZE 2001] that in many of the languages examined, nominative is a default case.

We can implement this by saying that in nominative-accusative languages, verbs always select one bare DP, the nominative argument. Additionally, the verb may also merge with one or more PPs, whose head may be either an adposition or a case. This gives us prepositional, oblique and direct objects and quirky subjects, with the caveat that in many cases, the semantic contribution of the PP is idiosyncratic.²² In ergative-absolutive languages, verbs also select one bare DP, but this is the absolutive argument, and the ergative subject is one of a number of PPs that may subsequently merge with it. In active-stative languages, verbs don't select a bare DP, but both ergative and accusative PPs are available. Tripartite languages are the hardest to account for, but it seems that no account of case in these languages can get around invoking the transitivity of the verb in question.

Apart from these major divisions, we expect cross-linguistic variation to occur for the same reason as with adpositions²³ — cases are lexical items and their semantic content is not universally fixed but may differ from language to language. This also allows us to look for original solutions in individual languages. In particular, we are no longer forced to say that case is present in languages where it is never overtly realised, like Chinese languages. Another language that may need special treatment is English, where nominative case is only differentiated from accusative case on pronouns, and even then its distribution is limited. This might very well allow us to reanalyse nominative case as a topic marker (see also Subsection 2.3.1). This in turn could mean that English too is a caseless language, as was suggested by [HUDSON 1995], in accordance with [EMONDS 1976] and [EMONDS 1985], with the possible exception of genitive case.²⁴ This would explain why, in English, accusative rather than nominative is the default case, as [SCHÜTZE 2001] shows.

²²Some amount of lexical stipulation seems unavoidable in any account. Consider for example the English verbs *fear* and *scare*. These seem to involve identical θ -roles (EXPERIENCER and SOURCE) but they are assigned conversely. Apparently, semantics can't determine which argument is merged first and receives which case. Nor is this a random choice made in the course of the derivation, or we would expect that *fear* and *scare* are ambiguous, that the one could also be used to mean the other. Therefore, this has to be specified lexically. [BARÐDAL 2011] takes this to the extreme by claiming that all case in Icelandic is lexical. Barðdal proposes to regulate this by grouping the verbs that use a certain case frame into semantic classes. (The classes of different case frames are allowed to overlap semantically.) New verbs then receive the case frame of a class they are associated with. ([BARÐDAL 2011] gives lists of verb classes and subclasses for the nominative-accusative and nominative-dative case frames. They are covered in greater detail in [BARÐDAL 2008].) While I think this approach may be successful in characterising idiosyncratic behaviour of verbs, this has to be complemented by the meaning the cases themselves contribute.

²³While it may appear that adpositions like English *in*, *on* and *at* have equivalents in other languages, these generally do not cover the exact same range of situations.

²⁴This would mean that in a sentence like 10 (repeated below), *there* carries the 'nominative' topic marker, and *an unpopular candidate* is caseless.

- (i) There was elected an unpopular candidate.

In Subsection 1.2.2, I cited 10 to argue with [CHOMSKY 1998] that case is not responsible for movement, under the assumption that *an unpopular candidate* carried nominative case. More generally, I argued against the claim that nominative is linked to any vP-external position in Section 1.2. However, I can only claim here that *there* carries 'nominative' under the assumption that it is not a case, and therefore needn't be assigned to an argument of the verb.

In this subsection, I have not come close to providing a thorough account of the semantics of case in any one language. What I hope to have shown is that the proposal that case should be an interpretable lexical item has at least some plausibility. As I argued in Section 1.1, I believe that there is no alternative. One final thing that should be kept in mind is that the problem of interpretation holds more generally for adpositions like *to* and the *by* of passive constructions. In principle, the complement of *by* may receive any type of θ -role otherwise received by the nominative subject. That suggests that the difficult fit between types of case and θ -roles is not in itself reason enough to conclude that case is an uninterpretable feature after all.

2.2 Consequences for specific constructions

Part of the ‘success’ of traditional case theory is due to its application as an explanatory force in other parts of syntax. In this section, I will consider the consequences of the theory of case proposed in this thesis for two such applications: exceptional case marking (Subsection 2.2.1) and passivisation (Subsection 2.2.2).

2.2.1 Exceptional case marking

Exceptional case marking (ECM)²⁵ is exemplified by sentences like the following:

- (20) John expects her to buy a poodle.

What makes sentences like these interesting is the status of *her* (henceforth *the ECM argument*), which is interpreted as the subject of the embedded clause *to buy a poodle* but which carries the accusative case normally associated with the object of the matrix verb. The correct analysis of this construction has been a subject of extensive historical debate.

The Raising-to-Object account (RtO) was first proposed in [ROSENBAUM 1965], supported by [MCCAWLEY 1970] and famously defended by [POSTAL 1974]. It argues that while the derivation starts with *her* as the embedded subject, it is part of the matrix clause in surface structure, and so must have undergone movement:

- (21) John expects her_{*i*} [*t_i* to buy a poodle].

This analysis was rejected by [CHOMSKY 1973], where it was argued instead that at all levels of the derivation, *her* is part of the embedded clause, and that it is assigned accusative case by the matrix verb *in situ*:

- (22) John expects [her to buy a poodle].

²⁵To my knowledge, this construction has no name that does not presuppose a specific analysis and which is not also used to refer to *control*. *Exceptional case marking* is associated with the analysis of [CHOMSKY 1973], but in my opinion it is the most neutral description.

This would remain the standard account in Chomskyan syntax until the advent of the Minimalist Programme in [CHOMSKY 1989, 1992; CHOMSKY & LASNIK 1993; CHOMSKY 1994, 1995a].

[POSTAL 1974] and [BACH 1974] also point out, but argue against, a third option that is later defended by [BRAME 1976], [BRESNAN 1978] and [DOWTY 1985], and that we can call the lexical account. According to this view, *her* does not enter the derivation as part of the embedded clause, but as an argument of the matrix verb. This means that ECM is syntactically like control. Correspondingly, there are two variants, depending on one's analysis of control.

Firstly, the interpretation of *her* as subject of the embedded predicate may be brought about purely by the meaning of the matrix predicate, in which case the syntactic structure of 20 is simply (23):

(23) John expects her [to buy a poodle].

This is the variant actually proposed by [BRAME 1976] and [DOWTY 1985], and it corresponds to the account of control recently defended in [CULICOVER & JACKENDOFF 2001; JACKENDOFF & CULICOVER 2003; CULICOVER & JACKENDOFF 2006].

Secondly, *her* may be controlling the phonologically empty pronoun PRO in the subject position of the embedded clause, as in (24):

(24) John expects her_i [PRO_i to buy a poodle].

This corresponds to the traditional view of control from [CHOMSKY 1973] onwards.

Of these three options, the lexical account is compatible with the proposal of this thesis, because it says that *her* gets its case and argument role from the same source. In contrast, both [CHOMSKY 1973]'s account and RtO are problematic, since they maintain that *her* gets a θ -role but no case in the embedded clause, and case but no θ -role in the matrix clause. However, while the main participants in the debate over ECM have been adherents of [CHOMSKY 1973]'s account or RtO, these opposing sides have successfully pointed out problems for *both* accounts, the most important of which I will now review.

[CHOMSKY 1973]'s account has been challenged by the many types of examples which aim to show that in surface structure, the embedded subject cannot be part of the embedded clause, in particular those provided by [POSTAL 1974].²⁶ Two of the examples that have endured are repeated by [RUNNER 2006] ((5) and (6) in the original):

(25) Mike expected Greg incorrectly [to take out the trash].

(26) She made Jerry out [to be famous].

Since *incorrectly* and *out* are interpreted in the matrix clause, they cannot be located in the embedded clause, and so neither can *Greg* and *Jerry*.

²⁶See also the criticism in [BRESNAN 1976] and the rebuttal in [POSTAL 1977].

Conversely, the main challenge to RtO is that there seems to be no possible landing site for the raised ECM argument. It should move to a position where its accusative case can be licensed, but any such position is an argument position. This argument lost force after [CHOMSKY 1989] suggested that accusative case is checked in the specifier position of the dedicated object agreement phrase AgrOP.²⁷ This meant that the embedded subject could raise to get accusative case without landing in an argument position. However, [CHOMSKY 1995a] changed course again, arguing against the existence of phrases that are not semantically motivated, and consequently abolishing agreement phrases. Furthermore, [RUNNER 2006] points out that there is also no obvious vP-external position where the embedded subject could move to, since it appears to the right of the verb and the verb does not raise very high itself in English.

These problems suggest that the lexical account of ECM could be the right one. However, before I discuss it, I will nevertheless try to face the challenges posed by [CHOMSKY 1973]’s account and RtO to my account of case.

One central assumption underlying RtO is that the ECM argument has to raise to the matrix case because it can’t get case in the embedded clause. However, recall from Subsection 1.2.1 that nominative case is in fact available in the embedded clauses of Icelandic ECM constructions. Thus, if the ECM argument really originates in the embedded clause, it must have two cases, embedded nominative and matrix accusative, with only the latter being visible. This in turn means that its acquisition of accusative case cannot be explained by the case filter, and the only alternative that suggests itself is that the ECM argument becomes an argument of the matrix verb too.²⁸ In this form, RtO *is* compatible with my account of case.²⁹

[CHOMSKY 1973]’s account is problematic for mine because it claims that the accusative case of *her* is licensed non-locally. Like RtO, it faces the problem that its underlying assumption, that there is no nominative case in the embedded clause, seems to be wrong. However, unlike RtO, this leaves no plausible explanation how the ECM argument could still also get accusative case from the matrix verb, if it remains in the embedded clause. [CHOMSKY 1973]’s account really requires that the ECM argument doesn’t get nominative case. But even if we grant this, there is a more obvious source for the accusative case of the ECM argument than the matrix verb, namely the embedded clause itself. For English, this argument is in fact very simple. Recall from 2.1.2 the sug-

²⁷Technically, AgrOP is simply a general agreement phrase AgrP, first introduced by [POLLOCK 1989], but [CHOMSKY 1989] introduces the notation AgrOP to distinguish it from the higher subject agreement phrase AgrSP.

²⁸This corresponds to the account of control defended by [HORNSTEIN 1999; BOECKX & HORNSTEIN 2003, 2004, 2006], [POLINSKY & POTSDAM 2006] and [BOWERS 2008] (originally proposed, ironically, to make control more like RtO).

²⁹In Subsection 1.1.4, I argued against case stacking as a way to account for the case of quirky nominatives. However, that was to protest the liberal use of semantically uninterpretable (therefore inconsequential) case despite it apparently still being available elsewhere in the same clause. In principle, since I argued in Subsection 2.1.1 that cases and adpositions belong to the same category, stacked cases should be no less likely than stacked adpositions, exemplified in (i):

- (i) The mouse came out from under the table.

That said, the solution is not pretty, and it is only mentioned here because it seems to be the logical consequence of maintaining RtO.

gestion that English accusative is *no case*. If this is so, then the problem of accusative case licensing disappears automatically. For languages like Icelandic, this doesn't work. However, recall from Subsection 1.2.1 that nominative case *is* in any case available in the embedded clauses of control verbs, which means that its unavailability with ECM verbs has to be stipulated. Then we might as well instead stipulate that nominative is replaced by accusative case. This is in fact suggested for Japanese ECM by [SELLS 1990].³⁰

As mentioned before, the lexical account of ECM poses no problem for my account of case. In addition, it is unaffected by those arguments against RtO and [CHOMSKY 1973]'s account mentioned previously, because it claims that the ECM argument is base generated as a matrix object. It has of course in turn been criticised by proponents of the other proposals, but some of the arguments brought against it are conceptual in nature, and appear not insurmountable. For example, one of [POSTAL 1974]'s arguments to dismiss the lexical account is that since 20 (repeated as (27)) is synonymous with (28), they should derive from the same deep structure. This argument simply no longer applies in current syntactic theory.

(27) John expects her to buy a poodle.

(28) John expects [that she buys a poodle].

[POSTAL 1974] also argues that *her* is not generated in the matrix clause of 20 because it is not an argument of the matrix verb, which is naturally interpreted as a bivalent verb, whose arguments are the 'expecter' (*John*) and the 'expected' (*her to buy a poodle*). However, it is not clear why it could not also be analysed as a trivalent verb, by separating what is expected from whereof it is expected. This receives support from the fact that many ECM constructions may be rephrased using *prolepsis*. Thus, 20/27, while not synonymous, is similar to (29):

(29) John expects of her that she buy a poodle.

In the existing theory, *her* in (29), like any other DP, must receive an argument role. Whatever it is, *her* in 20/27 should be able to receive a similar argument role.

In fact, [POSTAL 1974] admits that pairs like 20/27 and (28) are not always synonymous, as illustrated by the examples below with the ECM verb *believe*

³⁰[SELLS 1990] does not claim that the ECM argument always stays in the embedded clause, it may move to the matrix clause for reasons other than case. That makes this another way to derive RtO. To see that case-marked items can raise to the matrix clause, consider the following sentence from Dutch:

- (i) *Ik zie dat jou niet doen.*
 I see that you not do
 I don't see you do that.

This sentence seems to have two raised constituents: both the subject and the object of the embedded clause. Interestingly, the object has raised higher than the subject, despite the fact that by everyone's account it received its accusative case in the embedded sentence. Whatever caused it to move up may have done likewise for the embedded subject.

((i) – (v), chap. 11, fn. 6 in the original):

- (30) a. I believe that I am of Turkish ancestry.
b. ?I believe myself to be of Turkish ancestry.
- (31) a. I believe that I am drunk
b. ?I believe myself to be drunk
- (32) a. I believe that I am flying over Patagonia.
b. ?I believe myself to be flying over Patagonia.
- (33) a. I believe that I am talking to Melvin Kronzmeier.
b. ?I believe myself to be talking to Melvin Kronzmeier.
- (34) a. That leads me to believe (that) Joan is dead.
b. *That leads me to believe Joan to be dead.

[POSTAL 1974] tentatively proposes that the (b) examples in these sentence are inappropriate because the raising rule triggers an assumption regarding the raised constituents that is not met, but I see no way to enforce such an assumption in modern day syntax unless *myself* and *Joan* are arguments of the matrix verb.

I cannot claim that my proposal for case makes ECM any easier to account for. However, I hope to have succeeded in pointing out that even the traditional accounts of ECM require certain assumptions that we may have grown used to, but that we might as well change to accommodate a different case theory.

2.2.2 Passivisation

While not to the extent as with ECM, there has also been disagreement over the proper analysis of passivisation. There is at least one account of the passive that, while perhaps not very popular today, is compatible with the account of case presented in this thesis. This view, defended amongst others in [BRAME 1976] and [BRESNAN 1978], holds that passives enter the derivation as such, distinct from their active counterparts. Given the regularity of the phenomenon, we can assume that there is a morphological rule of passivisation, just as there is a rule of pluralisation for nouns (leaving open the question whether all passive forms are also lexical entries in their own right).

Conversely, since [CHOMSKY 1981], the mainstream Chomskyan approach to passivisation has always been to say that the surface form of the passive construction is the more or less accidental result of manipulations of the θ -role and case assigning capabilities of the verb, in the derivation. The challenge has been to derive Burzio's generalisation, originally proposed in [BURZIO 1986] ((23), Chapter 3) and reformulated below:

Theorem 35 (Burzio's generalisation) *A verb assigns a θ -role to its subject if and only if it licenses accusative case to its direct object.*

This was initially implemented in [CHOMSKY 1981] by simply stipulating that the passive morphology ‘absorbs’ the external θ -role and accusative case of a verb, and allows the expression of the external argument in a *by*-phrase. The internal argument then receives case from T and generally moves to its specifier position. For all intents and purposes, this is very close to the lexical account mentioned above.

This syntactic account was refined following the introduction of the double VP shell by [LARSON 1988, 1990] and the subsequent reanalysis by [CHOMSKY 1995a] of the higher V as a ‘light verb’ *v*. It is the head *v* that assigns the external θ -role and licenses accusative case. In passive constructions, *v* is either absent or replaced by a harmless variant.

While this account may look good on first sight, it is not unproblematic. It appears to clash with the generally accepted predicate-internal subject hypothesis first introduced by [ZAGONA 1982], given that the external θ -role is assigned by *v* but determined by V. Making *v* responsible for both the external θ -role and accusative case is stipulative, even if it implements Burzio’s generalisation. And what is the semantic contribution of *v*? One is tempted to interpret it as causativation, and have it license AGENT θ -roles. Indeed, this is what [CHOMSKY 1995a] (Section 4.6) and [KRATZER 1996] propose. But while this may provide independent motivation for *v* and allow for a structural distinction between unergative and unaccusative intransitives, it wrecks the account of passivisation, which can apply to verbs regardless of whether their external argument is an AGENT. If, instead, the external θ -role *v* licenses is not necessarily AGENT, but is determined by its VP complement, then why merge *v* in the first place given that it is optional according to the passivisation account?

And there are still more issues. If passivisation really involved the suppression of the external θ -role, we would expect the passive of *open* ((36-a)) and the middle *open* ((36-b)) to be synonymous. Instead, they are not — with the former, the external θ -role may be assigned to the argument of a *by*-phrase ((36-c)),^{31,32} with the latter it may not ((36-d)).

- (36) a. The door was opened.
 b. The door opened.

³¹One interesting attempt to account for this is provided by [HOEKSTRA 1996]. Hoekstra argues that all verbs are syntactically complex. The surface form is derived through the incorporation of a lexical part (typically an adjective) into a functional head F. Active sentences are then derived from their passive counterparts through the incorporation of *by* into F, including its case assignment properties. The oblique argument of *by*, now caseless, has to move to the specifier position of T to get nominative case.

While intriguing, what remains unclear is how *by* is prevented from assigning accusative case to the external argument directly upon merger, especially since that is required if the sentence remains passive. This implies look ahead, which is in itself problematic, but furthermore we cannot appeal to an eventual crash of the derivation, because there seems nothing wrong with the alternative scenario where *by* incorporates into F to produce active voice morphology *after* assigning accusative case to the external argument, and it is the *internal* argument that rises to the specifier position of T to get nominative case.

³²[CHOMSKY 1981] (chap. 2, fn. 100) notes that other prepositions can also be used in this context, like *to* in (i):

- (i) It is known to everyone that ...

- c. The door was opened by Timotheus.
- d. *The door opened by Timotheus.

Another question is how to account for ‘improper’ passives like (37), where an indirect or prepositional object is promoted to subject position and accusative case continues to be available.

(37) I have been given a letter by Ebenezer.

The continued availability of the external θ -role in the by-phrase and the persistence of accusative case in improper passives despite the demotion of the external argument show that the implementation of Burzio’s generalisation obtained by packing both the external θ -role and accusative case on *v* is simply too strict.³³

The conclusion to draw from all this is that any account of passivisation involves a fair amount of stipulation. My suggestion is to embrace this fact and to let passivisation be a morphological operation that arises in many languages because it is functionally useful, albeit with different variants, including improper passivisation.

2.3 Consequences for the derivation

In this section, I will briefly return to some issues I touched upon in Chapter 1. In Subsection 2.3.1, I will consider how to account for movement if case is not its cause. In Subsection 2.3.2, I will make some tentative suggestions for a new feature theory.

2.3.1 Movement

If case is not an uninterpretable feature driving movement, we need another source for the effects of the EPP. In Subsection 1.2.2, I argued that [BOŠKOVIĆ 2007] is right to claim that subject movement can be implemented more elegantly if it is driven by a feature on that subject, and not by a feature in the matrix TP. The point where I disagreed with Bošković is that this feature could be case.

If case is not the feature that drives movement, then what is? Consider the following three sentences:

- (38)
- a. The people elected an unpopular candidate.
 - b. An unpopular candidate was elected by the people.
 - c. There was elected an unpopular candidate by the people.

These sentences seem truth-functionally equivalent, but uncontroversially, they differ in regard to information structure. Movement affects information structure (as [CHOMSKY 1998] notes). In a given context, a speaker chooses one of

³³See also Section 2 of [MARANTZ 1992] for examples from a number of languages that appear to violate Burzio’s generalisation.

these structures over the other. Given this state of affairs, I propose that it is plausible that *the people* in the derivation of (38-a) should be equipped with a feature whose purpose is not merely to be licensed, but to ensure that *the people* move to the specifier position of TP.^{34,35} This leaves open the difficult question what it means for *the people* to end up in that position. I propose that the constituent in the specifier position of TP is the *topic* of a sentence, but this should be substantiated by further research. I am tempted to identify this with [KISS 2002]’s *subject of predication*, but this raises the question how to account for cross-linguistic variation. In particular, we would need to explain why English allows nominative and dummy topics (*there*) but not e.g. accusatives, while Hungarian does, as in (39) (adapted from [KISS 2002]’s (14-f)).³⁶

- (39) *A házat valószínűleg meg veszi Péter.*
 this house.ACC probably [VP PREF buys Peter]
 Probably Peter buys the house.

Once we have an account of EPP-movement, it also applies to Raising to Subject. We can simply assume that as with ordinary monoclausal sentences, the subject merges with nominative case, and that it raises because it is the topic of the sentence. Incidentally, the following Icelandic data (adapted from (15)a of [SIGURÐSSON 2004]) show that Raising to Subject is not driven by the need to obtain nominative case:

- (40) *Henni virðist hafa leiðst bókin.*
 her.DAT seems have bored book.DEF.NOM
 She seems to have found the book boring.

2.3.2 Feature theory

In the previous subsection, I claimed that subjects host a feature that induces them to move to the topic position of a sentence. Accordingly, we can call that feature Topic. This raises the question whether, unlike the traditional Case feature, it fits into the standard paradigm of interpretable and uninterpretable features. At first glance, it would seem that for it to be able to drive movement, we are forced to say that Topic is an uninterpretable feature. However, I think we can avoid this conclusion by adopting a new paradigm, that is better motivated to boot.

While Case is particularly badly motivated, uninterpretable features in general form a problem (as [CHOMSKY 1998] does not fail to point out). This

³⁴Another option would be for constituents to be merged into the tree equipped with a certain prominence. The derivation would then have to apply movement (subject to restrictions) and other mechanisms such as stress to do justice to the relative prominences of the constituents.

³⁵If subjects move to the specifier position of TP for information theoretical reasons, this could provide an explanation for why subject extraction can be problematic, although this would definitely require further research.

³⁶In fact, [KISS 2002]’s view of Hungarian case — lexical assignment — appears to be along the lines of the main proposal in this paper, but he adheres to traditional case theory for English and uses this difference to account for the greater flexibility of Hungarian word order. In my opinion, once we adopt lexical case assignment for Hungarian, it should also be the zero hypothesis for English.

makes the entire system suspect. Additionally, its empirical basis appears rather weak. I would go as far as to say that there is only one prototypical set of features whose interpretable and uninterpretable exponents overtly enter into an AGREE-relationship: φ -features. This is a pretty meagre foundation to base a whole theory on.³⁷ Especially since it is far from clear that the φ -features on a verb are really uninterpretable. I propose that it is at least plausible that φ -features are interpreted wherever they occur as a restriction on the argument in question, and that what looks like valuation is instead the simple fact that a sentence with conflicting semantic content is deviant.³⁸ Alternatively, the φ -features on a verb could be separate endophoric DPs. If this reanalysis can be maintained, we might extrapolate from it by postulating across the board that there is no such thing as an uninterpretable feature, a conclusion shared by [SIGURÐSSON 2006]. AGREE could then be reformulated along the lines of [SIGURÐSSON 2002a]'s proposal, which says that AGREE is a (semantic) compatibility condition on MERGE.

Whether any attempt to abolish uninterpretable features altogether proves successful remains to be seen. However, I would like to repeat here the observation made in Subsection 1.1.4 that the whole idea that features with a lack of semantic content can cause the derivation to crash is suspect anyway. Correspondingly, we (and anyone who believes in crash-free syntax — see fn. 8) need to wonder how some features then seem to be able to drive movement. At this point I would like to follow up on an observation independently made in [CHOMSKY 2008], namely that semantics consists of two separate modules: ‘core’ semantics (concerned with meaning) and information structure. We could then say that the features that induce movement (like interrogative and focus features, and the Topic feature just proposed) are exactly those which are relevant for information structure.³⁹ This would provide an answer to the question why movement is part of syntax in the first place, another issue [CHOMSKY 1998] is concerned with. Namely, the semantics of a sentence determine where constituents merge, and movement takes place to satisfy the requirements of information structure.

The proposal just outlined still requires a precise technical implementation, which falls outside the scope of this thesis. The resulting apparatus may raise new conceptual questions. But at first glance, any implementation would still seem to be better motivated than current feature theory. If movement is merely driven by the need to remove imperfections in the system (uninterpretable features), one wonders why syntax isn’t designed better, with everything merging in the right place to begin with. In particular, if case does not contribute any meaning, then why is it not assigned to a noun where the latter merges?

³⁷Note in this respect that [CHOMSKY 1998] (fn. 80) explicitly distinguishes agreement from concord, which might otherwise also provide some supporting data.

³⁸Which φ -features are expressed on a verb has to be lexically stipulated, but that seems to be required in one way or another anyway.

³⁹Features that are not relevant for information structure, like φ -features, may even turn out to be epiphenomenal.

2.4 Consequences for the scope of syntax

In this thesis, I have argued for a different case theory on the basis of both empirical data and conceptual considerations. However, no evaluation of this claim can be complete without an assessment of what it is that we want syntactic theory to do. In Subsection 2.4.1, I will consider to what extent my claims can be valid cross-linguistically, and what this means for Universal Grammar. In Subsection 2.4.2, I will briefly say something about the division of labour between narrow syntax and other components of grammar like semantics, morphology and the lexicon.

2.4.1 Universality

The claims in Section 1.2 rely mostly on data from a few languages, notably Icelandic. The question is justified whether perhaps case could not be licensed differently in different languages. Even people who have been convinced that Icelandic case is not licensed structurally may want to maintain classic case theory for other languages like English. There are two things I have to say about this. Firstly, classic case theory (like most syntactic theory) has historically been based for a large part on English data, and enough of the claims in this thesis hold for English that we can argue against the classical view of case for English in particular. This should call into question case theory across the board. Secondly, the assumption behind case theory (and other parts of syntax) has always been that it is valid universally. At the very least, since cross-linguistic arguments are being used to argue aspects of case theory, cross-linguistic data should also have the potential to be valid counter-evidence.

Even if we cast aside these objections for the moment, we shouldn't want classic case theory to hold for only a subset of languages. For the conceptual tenability of classic case theory decreases even further if it is not valid universally. If Icelandic is capable of encoding all its case lexically, then a priori any language should be able to, and the need to assume a separate mechanism disappears. And the same universal mechanisms that allow Icelandic DPs to move to their surface position should also be able to do so in English and other languages.

In addition, there is a lot about case theory that is arbitrary. Why should there be a strict requirement for DPs to receive no less and no more than one Case feature? Why does the failure to check this Case feature invariably result in a crash of the derivation? Why is nominative case licensed in the specifier position of TP, and why is it licensed non-locally but accusative case seemingly *in situ*? Until now, the answer has been that these are hard-wired facts of life (syntax). Once we allow individual languages to opt out of one or more of these properties of case, their arbitrary nature becomes truly inexplicable. For example, if structural case may be semantically interpretable sometimes and sometimes not, which is cited as a possible solution by [BOŠKOVIĆ 2007] to account for postverbal nominatives, the definition of the feature Case becomes wholly unprincipled: how does the theory know when case is interpretable and when it is so uninterpretable that it makes derivations crash? Moreover, if case theory is allowed to change from language to language, it loses its only

good quality: explanative power. I am therefore convinced that the issues addressed in this thesis affect syntax cross-linguistically.

The alternative I propose is that there is nothing universal about case, that there is no case theory *per se*. For if cases are lexical items, as I have argued, they must be allowed to differ from language to language as much as other functional lexical items. What is unfortunate about this conclusion is that from a syntactic perspective, case becomes less interesting. However, case already lost much of its importance in [CHOMSKY 1998], as acknowledged therein, and I have only tried to bring this process to its logical conclusion. And while we lose explanatory power, since we cannot now predict the behaviour of case across languages, this may only be right. For if case is not a hard-wired part of language, we can better account for the variety among case systems: some languages are ergative-absolutive, others nominative-accusative and yet other languages trivalent (see [PAYNE 1980] and sources cited therein for examples). The similarities between case systems will then have to be explained on historical and functional grounds — it should not be surprising that languages find similar solutions to common problems.

By reducing the load of universal grammar, we also make linguistic theory more plausible from an evolutionary point of view. Unlike universal grammar, functional and historical arguments come for free, so we should prefer them whenever we have a choice in explaining a linguistic phenomenon like case.⁴⁰ In fact, we can go even further. Even if we encounter a linguistic phenomenon that we cannot explain on functional or historical grounds, we still may not want to implicate universal grammar. For we have to ask ourselves how universal grammar would come to include linguistic theory not favoured functionally or historically. In any case, we should expect the phenomenon to have existed before its incorporation into universal grammar, but then we no longer need universal grammar to explain its existence. These considerations suggest that universal grammar only contains the minimum amount of syntactic machinery necessary to construct sentences. And whenever we encounter inexplicable syntactic facts, it probably means we lack sufficient understanding of the historical and functional context. The resulting research potential may perhaps compensate for the reduced scope of syntax.

2.4.2 The components of grammar

There is another way in which the current proposal shifts the border posts of linguistic theory. By saying that cases are lexical items and not uninterpretable features needing to be checked, case theory becomes more a matter of lexicology, morphology and semantics than of syntax. This is in line with the view of [JAKOBSON 1936], but it is not uncontroversial: it has been said before that liberally invoking semantics is a way of throwing a problem over the hedge and not having to deal with it. This is fair criticism, but it does not mean that not wanting to solve all problems with syntax is automatically wrong.

⁴⁰For a concrete example, consider tense. Most, if not all, of the world's languages make use of past, present and future tense. From this we could conclude that these three options are provided by universal grammar. However, it is very likely that the usefulness of tenses for practical communication would anyhow prevent any language change that would result in their elimination.

There are reasons why trimming down syntax might be a good idea. For example, everything else being equal, we should want to minimise the number of linguistic categories that have to be acquired by speakers and that play a role in language variation. There is one such category we certainly need: the lexicon, consisting of lexical items. It would be ideal then if we could reduce syntactic variation to lexical variation. Syntactic theory during the last decades has taken steps in this direction by replacing language-specific rules and constraints by features hosted on lexical items and universal principles. Our proposal that case be a lexical item takes this process still further, because the case system of a language becomes entirely a lexical affair.

There is even a risk of doing too much syntax. For there is only so much one can say about not using syntax to solve a particular linguistic problem, but conversely, any positive syntactic proposal will invite follow-up research, and any piece of syntactic structure or machinery will be used in new applications. This can drown out the non-syntactic alternative, and the flurry of publications may be held up to demonstrate the success of the syntactic proposal, perhaps falsely. The present thesis can be interpreted in this light as an argument against such syntactic overreaching in the case of case.

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