

# The case of clausal arguments in Icelandic

Mirko Garofalo  
University of Iceland  
mig@hi.is

## Abstract

The paper proposes that case assignment and D-features are mainly responsible for the distribution of nominalized and bare clausal arguments in Icelandic. The data show that clausal arguments without the determiner *það* ('that') are only allowed when they are assigned structural case or in caseless positions, but not in instances of lexical case. Nominalized clausal arguments, by contrast, are only disallowed in caseless positions, exactly as DPs generally do. These facts suggest (a) that structural case has no formal case features that need to be checked, (b) that nominalized clausal arguments must be DPs and (c) that pronounless clauses must be bare CPs as they are resistant to lexical case assignment. However, if the D-feature of a functional head like T needs to be checked by a DP only, this operation has priority over case assignment, filtering out CPs by default from positions like Spec,T.

The existence of CP subjects in Icelandic contrasts with previous cross-linguistic hypotheses which claim that clausal subjects must be assigned structural case and need clausal nominalization (see e.g. Roussou (1991) for Modern Greek; Knyazev (2016) for Russian). The distributional and structural differences between nominalized and pronounless clauses in Icelandic also contrast with the possibility that bare clausal arguments are DPs (e.g. Knyazev (2016) for Russian) or that nominalized arguments are CPs (e.g. Stroik (1996) and Yoon (2001) for English).

## 1 Introduction

A complex puzzle in syntactic analysis is the distribution of clausal arguments,<sup>1</sup> and in particular of those which can be preceded by an overt pronoun or determiner (generally a definite article, a demonstrative pronoun or a personal pronoun). From a cross-linguistic perspective, the presence of determiners introducing clauses is well attested (e.g. Roussou (1991); Hartman (2012); Kim and Sag (2005); Delicado Cantero (2013); Pietraszko (2019); Jahromi (2011); De Cuba and Ürögdi (2010) among many others). A typical example of this phenomenon is pronoun *it* in English, which is able to surface before clausal subjects and clausal direct objects:

- (1) a. **It** is important [that you send this document as soon as possible]
- b. I heard **it** [that Sandra moved out]

---

<sup>1</sup> I want to thank Johan Brandtler for his useful comments on my article, as well as Jóhannes Gísli Jónsson, Gísli Rúnar Harðarson, Einar Freyr Sigurðsson and Anton Karl Ingason for our insightful discussions on the topic of clausal nominalization.

The examples above also have a pronounless counterpart, as shown in the following examples:

- (2) a. [That you send this document as soon as possible] is important  
 b. I heard [that Sandra moved out]

Now, the important question in relation to clausal arguments preceded by an overt pronoun or determiner is why there is a need for such an element in the first place. In various accounts, the presence of a determiner has been linked to the need for a clausal argument to be *nominalized* (Roussou (1991); see also Delicado Cantero (2013), Borsley and Kornfilt (2000), Panagiotidis and Grohmann (2009), Kornfilt and Whitman (2011) among others about the concept of clausal nominalization), in the sense that the clausal argument, which is traditionally categorized as a CP, is embedded into a DP projection. A possible trigger of clausal nominalization is case assignment (e.g. Roussou (1991); cf. Hartman (2012)). Bare CPs, in fact, based on Stowell's (1981) *Case Resistance Principle*, are unable to be assigned case since they already provide case-assigning features. Therefore, the function of the determiner is simply checking case on behalf of a CP argument. In particular, clausal subjects appear to demonstrate the validity of this hypothesis. From a cross-linguistic perspective, the obligatory presence of a determiner apparently shows that clausal subjects need to be nominalized in order to check structural case (the examples are from Roussou (1991) and Hartman (2012) respectively):

- (3) [\***To**] oti efighe] apodhiknii tin enohi tis MODERN GREEK  
 the<sub>NOM</sub> that left proves the<sub>ACC</sub> guilt her  
 'The fact that she left proves her guilt'
- (4) [\***In**] ke Maryam raft] ma'alum e PERSIAN  
 this<sub>NOM</sub> that Maryam left clear is  
 'It is clear that Maryam left'

Roussou (1991) elaborates further on the use of determiners, pointing out that clausal nominalization is ruled out *in situ* if case does not need to be assigned, as illustrated in the following example:

- (5) Ksero [(**\*to**) oti perase] MODERN GREEK  
 know-1sg the<sub>ACC</sub> that passed-3sg  
 'I know he passed (the exam)'

Roussou's conclusion on the issue, at least in the case of Modern Greek, is that clausal nominalization is strictly dependent on case assignment across argument positions. However, this dependency is still a matter of debate. For instance, Knyazev (2016), analyzing Russian complement clauses, follows the previous cross-linguistic accounts in relation to the necessity for structural case to be assigned to clausal subjects. However, he extends the nominalization hypothesis to pronounless arguments, i.e. embedded clauses are DPs in case positions independently from the presence or absence of a determiner. The consequence of this generalization is that the role of the determiner is reduced to making case visible.

Now, Icelandic constitutes an important problem for these cross-linguistic analyses. From a structural perspective, I agree with the idea that clausal arguments preceded by a determiner are DPs, i.e. they are nominalized. But, differently from Knyazev's analysis of Russian and also other accounts which propose an all-DP model for clausal arguments (as well as an all-NP model, see Þráinsson (1979)), Icelandic exhibits a clear structural distinction between pronounless clausal arguments and nominalized clauses, which are CPs and DPs respectively (see section 2.2). What is more, differently from languages like Modern Greek, Russian or Persian, clausal subjects in Icelandic can be CPs, although they are allowed to surface in Spec,C only

(see section 3 for more details). Considering these facts, one question arises, that is whether Icelandic constitutes a problem for CRP, which represents the fundamental premise for linking case assignment to clausal nominalization. This question has been raised recently by Ingason (2018), who suggests that CPs in Icelandic are directly case-marked, due to the fact that floating quantifiers associated to clausal arguments are assigned case:

- (6) [Að hann kom, sá og sigraði] var öllu haldið fram  
 that he came saw and won was all<sub>DAT</sub> claimed  
 ‘That he came, saw and won was all claimed’

However, the determiner *það*<sup>2</sup> (‘that’) in Icelandic can precede clauses obligatorily (see e.g. (7)), which poses a problem for Ingason’s proposal. If we say that CPs are able to be assigned case directly, there should be no need for determiners and, at least, we should expect to see no examples of mandatory determiners before clauses. But that is not the case. So, Icelandic still appears to remain CRP-compliant:<sup>3</sup>

- (7) Ég fagna [\***(því)** að ég skuli hafa hætt við flugið]  
 I rejoice that<sub>DAT</sub> that I shall have cancelled flight.the  
 ‘I rejoice in the fact that I cancelled my flight’

The reason for the presence of pronounless clauses as arguments must therefore be explained in a different way. Assuming that pronounless and nominalized clauses are CPs and DPs respectively in Icelandic and also considering the validity of CRP, I propose that their distribution is mainly determined by whether lexical or structural case is assigned and also by other additional factors. In particular, the distribution of these two argument types is affected by three main conditions. Firstly, if lexical case is assigned, the clausal argument must be nominalized (see the genitive subject of the predicate *verða vart* (‘be noticed’) in (8b)). In instances of structural case, by contrast, CP arguments can surface, which entails that no formal case features need to be checked. This is supported by the fact that nominative clausal subjects as in (8a) as well as clausal objects in nominative and accusative case (see (9)), which are all arguments that are traditionally supposed to be assigned structural case, are optionally preceded by *það* (note, however, that the position occupied by the clausal argument in (8a) is Spec,C and not Spec,T, see section 3 and 4 for a detailed discussion on this issue):

<sup>2</sup> The inflectional forms of the pronoun are *það* for both nominative and accusative case, *því* for dative and *þess* for genitive.

<sup>3</sup> A secondary question in relation to Ingason’s observations is, provided that CPs are unable to be assigned case, how we can explain the fact that the quantifier is assigned dative case while the clausal argument does not need to be nominalized. If we want to maintain the restrictions applied by CRP on CPs, we can speculate that each component of the complement (notice here that the CP and the QP originally compose the clausal object of the verb *halda fram* (‘claim’) in active voice) is assigned case based on the selectional properties applied by the lexical item. As we will see in section 4, a subset of verbs like *spá* (‘predict’) tend to provide two selectional patterns, one where lexical case is assigned (for DPs and, possibly, QPs) and one caseless (for CPs and also for PPs). *Halda fram* behaves in the same way as *spá*, since the clausal argument in (6) can also be preceded by *það*:

- (i) [(**Því**) að hann kom, sá og sigraði] var öllu haldið fram  
 that<sub>DAT</sub> that he came saw and won was all<sub>DAT</sub> claimed  
 ‘That he came, saw and won was all claimed’

So, since the CP and the QP are two different components of the argument, if we suppose that every single component is assigned (or not assigned) case based on its phrase type, we could suppose that the CP is selected via caseless pattern, while the QP is selected via case-marked pattern.

- (8) a. [(**Það**) að ég sé ríkur] breytir öllu því sem þú hélt um mig  
 that<sub>NOM</sub> that I am rich changes all that which you thought about me  
 ‘The fact that I am rich changes everything you thought about me’
- b. [\*(**Þess**) að hann væri farinn] varð ekki vart  
 that<sub>GEN</sub> that he was gone became not aware  
 ‘The fact that he left went unnoticed’
- (9) a. Björk harmaði [(**það**) að rannsakendurnir sendu ekki umsóknina]  
 Björk<sub>NOM</sub> regretted that<sub>ACC</sub> that researchers.the sent not application.the  
 ‘Björk regretted it that the researchers didn’t submit their application’
- b. Nánast öllum í hópnum leiðist [(**það**) að Karl sé alltaf sá eini  
 nearly everyone in group.the is bored that<sub>NOM</sub> that Karl<sub>NOM</sub> is always that one  
 sem talar á þessum fundum]  
 who speaks in these meetings  
 ‘Almost everyone in the group find boring that Karl is always the one who talks  
 in these meetings’

If structural case is characterized by a lack of formal features, there is a possibility that the facts about case assignment exhibited by Icelandic are more in line with the so-called *Dependent Case Theory* proposed in Marantz (2000), Preminger (2011) and much subsequent work. Therefore, in this paper I will adopt DCT in order to explain the distribution of nominalized and pronounless clauses (see section 2.3 for more details on DCT).

Secondly, if a determiner is optional after a verb that normally assigns lexical case, e.g. *spá* (‘predict’), it is plausible to think that the verb provides two selectional patterns, one of which is caseless and can host CP arguments. The existence of this kind of selectional pattern is supported by two pieces of circumstantial evidence. On the one hand, we can observe that a default *það* is allowed before clausal objects of verbs like *spá* after passivization and movement to Spec,C, but not before clausal objects of verbs that require a mandatory pronoun *in situ* in active voice, like *fagna* (‘rejoice’). The fact that a default *það* can only surface with verbs like *spá* might be a clue of the existence of a caseless pattern:<sup>4</sup>

- (10) a. Evrópusambandið hélt (**því**) fram [að við stunduðum ofveiðar]  
 European Union.the claimed that<sub>DAT</sub> that we did overfishing  
 ‘The European Union claimed that we did overfishing’<sup>5</sup>
- b. [**Því/Það** að við stunduðum ofveiðar] var haldið fram  
 that<sub>DAT/DEF</sub> that we did overfishing was claimed  
 ‘It was claimed that we did overfishing’
- (11) a. María fagnaði [\*(**því**) að hann skyldi hafa útskrifast]  
 María<sub>NOM</sub> rejoiced that<sub>DAT</sub> that he should have graduated  
 ‘I rejoiced in learning that he graduated’
- b. [**Því/\*Það** að hann skyldi hafa útskrifast] var fagnað  
 that<sub>DAT/DEF</sub> that he should have graduated was rejoiced  
 ‘The news that he graduated were received with much joy’

On the other hand, the second piece of circumstantial evidence in favour of a caseless selectional pattern is a parallelism between PPs and CPs in Icelandic. In fact, *það* can also precede

<sup>4</sup> *Halda fram* is a phrasal verb, so extraposition of the clausal argument is required in this case in active voice.

<sup>5</sup> Adapted from [miðjan.is/sjavarutvegsadherra-sagdi-vid-nadum-samkomulagi-vid-evropusambandi/](http://miðjan.is/sjavarutvegsadherra-sagdi-vid-nadum-samkomulagi-vid-evropusambandi/).

prepositional phrases expressing time embedded into another PP projection (although this phenomenon is quite limited). Since, following CRP, prepositions are resistant to case assignment as they are case assigners, we can infer that *það* nominalizes the PP if case needs to be assigned, whereas the pronoun does not surface if the PP is selected via caseless pattern. Since the results of nominalization appear to be quite similar for object clauses and PPs as shown in the examples here below, it is plausible that verbs like *spá* provide an additional caseless selectional pattern exactly like the preposition *frá* ('from'):

- (12) a. Sara spáði [(því) að Gísli myndi sigra]  
 Sara<sub>NOM</sub> predicted that<sub>DAT</sub> that Gísli<sub>NOM</sub> would win  
 'Sara predicted that Gísli would win'
- b. Reglurnar [frá (því) [PP í fyrra]] hafa breyst  
 Rules.the from that<sub>DAT</sub> last year have changed  
 'The rules from last year have changed'

The third condition I propose is that if there is a D-feature of a functional head like T that needs to be checked by a DP argument, this operation has priority over case. We can see that whenever a clausal subject surfaces after the finite verb in Spec,T, it must be nominalized, as illustrated here below with the contrast between pre- and post-verbal position (note here that Icelandic is a V2-language):

- (13) a. [(það) að ég sé ríkur] breytir öllu því sem þú hélt um mig  
 that<sub>NOM</sub> that I am rich changes all that which you thought about me  
 'The fact that I am rich changes everything you thought about me'
- b. Breytir [\* (það) að ég sé ríkur] öllu því sem þú hélt um mig?  
 changes that<sub>NOM</sub> that I am rich all that which you thought about me  
 'Does the fact that I am rich change everything you thought about me?'

A similar issue can be found in indirect objects. When a clausal indirect object in Icelandic is *in situ*, *það* is systematically mandatory. Pronominal obligatoriness is preserved when the clausal argument is passivized and moved to Spec,T, as we can expect. However, if the passivized clausal argument is moved to pre-verbal position, the pronoun is surprisingly optional. These facts suggest that both T and Appl (see Pylkkänen (2000; 2008) for more details on the *Applicative Head hypothesis*, also section 5) have a D-feature that can only be checked by DPs which surface in their specifier positions. In other words, CPs are filtered out in Spec,Appl as well as Spec,T because D-feature checking has priority over case, but not in Spec,C:

- (14) a. Þessi ritgerð svipti [\* (það) að Konrad skyldi hafa fórnað sér]  
 this essay deprived that<sub>ACC</sub> that Konrad<sub>NOM</sub> should have sacrificed himself  
 öllu vægi í sögunni  
 all importance in story.the  
 'This essay deprived the fact that Konrad sacrificed himself of all its importance in the story'
- b. Var [\* (það) að Konrad skyldi hafa fórnað sér] svipt öllu  
 was that<sub>NOM</sub> that Konrad<sub>NOM</sub> should have sacrificed himself deprived all  
 vægi í sögunni?  
 importance in story.the  
 'Was the fact that Konrad sacrificed himself deprived of all its importance in the story?'

- c. [(**Það**) að Konrad skyldi hafa fórnað sér] var svipt öllu  
 that<sub>NOM</sub> that Konrad<sub>NOM</sub> should have sacrificed himself was deprived all  
 vægi í sögunni  
 importance in story.the  
 ‘The fact that Konrad sacrificed himself was deprived of all its importance in the  
 story’

From a cross-linguistic perspective, if the hypothesis presented in this paper is applicable to other languages as well, it means that the presence of obligatory determiners on clauses in languages like Modern Greek or Persian might be motivated by D-feature checking rather than structural case assignment.

On the other hand, from a structural perspective, we can already see that there is a distinction in Icelandic between pronounless clausal arguments and those preceded by *það*. It is not mere coincidence, for instance, that *það* is able to precede two categories, i.e. PPs and clausal arguments, which exhibit both some resistance to case assignment. So, since the latter appear to be unable to be assigned lexical case, they can not be DPs. Furthermore, the contrast between clausal subjects in pre- and post-verbal position shows that not all clausal arguments can be the same, otherwise we would expect *það* to be optional or mandatory in both positions.

In order to show in more detail the validity of these claims, I will mainly discuss the distribution of the determiner *það* before clausal subjects, clausal direct objects and clausal indirect objects in Icelandic. The paper will be divided into five sections. In the first, we will focus on the structural differences between nominalized and pronounless clauses and also on DCT. In the second, third and fourth section, we will take a closer look at clausal subjects, clausal direct objects and clausal indirect objects respectively. In the fifth, we will summarize the main results of our analysis.

## 2 Preliminary issues

### 2.1 Constituency of nominalized clauses

A preliminary step in our analysis of clausal arguments is exploring the external structure of nominalized and pronounless clauses and showing that they are two different types of arguments, i.e. DPs and CPs respectively. Let us start by taking a closer look at nominalized clauses. *Það* before clauses exhibits a very extended distribution across the board. Apart from the common subject and object positions (as we have seen in the case of English), we find examples of clausal nominalization in Icelandic before nominal predicates (as in (15a)), prepositional objects (see (15b)), indirect objects (as in (15c)), complements of nouns (e.g. (15d)) and adjectives (as in (15e)):

- (15) a. Vandamálið er [(**það**) að við skuldum meira núna]  
 problem.the is that<sub>NOM</sub> that we owe more now  
 ‘The problem is that we owe more money now’
- b. Allardyce er svekkur yfir [(**því**) að hafa fengið sparkið]  
 Allardyce<sub>NOM</sub> is annoyed over that<sub>DAT</sub> to have got kick.the  
 ‘Allardyce was annoyed about the fact that he was fired’
- c. Ég veitti [\*(**því**) að Jón var að gráta] enga athygli  
 I gave that<sub>DAT</sub> that Jón<sub>NOM</sub> was to cry no attention  
 ‘I paid no attention to the fact that Jón was crying’

- d. Þessi samningur er gerður til verndar [**(því)** að starfsmennirnir séu ekki  
 this contract is made to prevention that<sub>DAT</sub> that workers.the are not  
 þvingaðir til að senda formlegt kvörtunarbréf]  
 compelled to to send formal letter of complaint  
 ‘This contract is made to prevent that the workers do not feel compelled to send  
 a formal letter of complaint’
- e. Ég er feginn [**(því)** að þú skulir vera kominn]  
 I am satisfied that<sub>DAT</sub> that you shall be arrived  
 ‘I’m happy that you have come’

An important fact to keep in mind here is that all the positions occupied by a clausal argument in the examples here above may well be occupied by a common (non-clausal) DP complement. This tells us from the start that nominalized clauses have a distribution similar to the one of DPs in general. But the main question is whether nominalized clauses *are* DPs and, before that, whether *það* and the clausal argument they precede form one constituent. If we take a look at languages like English, for example, we see that it is not the case, at least at the surface. Clausal extraposition in English systematically occurs when the pronoun precedes the clause so that they can never occupy the same position. Here is an example from clausal subjects:

- (16) a. \* **It that you send this document as soon as possible** is important  
 b. **It** is important **that you send this document as soon as possible**

According to Shahar (2008), the presence of anticipatory *it* itself is triggered by clausal extraposition, which is caused by the fact that a *that*-clause can not be assigned structural case consistently with CRP. Following the *Copy Theory of Movement*, which posits that every instance of movement in syntax leaves behind a copy of the moved constituent in its previous position (see e.g. Boskovic and Nunes (2007)), he suggests that *it* represents an underspecified (and phonetically realized) copy of the clausal argument left during clausal extraposition. In other words, *it* and the clausal argument are part of the same chain. Based on this approach, the pronoun and the clausal argument do not form a constituent, but are just two different manifestations of the clausal argument itself. However, the situation in Icelandic is incompatible with what Shahar proposes for English. Since Icelandic is a V2-language, there is only one syntactic position available before the finite verb and *það* can occupy it with the clausal argument. Therefore, both must be merged together in the same position (see also Þráinsson (1979), chapter 4, in particular the Base Hypothesis; also cf. Rosenbaum (1967)):

- (17) [(**Það**) að ég sé ríkur] breytir öllu því sem þú hélt um mig  
 that<sub>NOM</sub> that I am rich changes all that which you thought about me  
 ‘The fact that I am rich changes everything you thought about me’

Now, if we interpreted *það* as an underspecified copy of the clausal argument, it would be difficult to believe that a constituent and the copy of the constituent itself can occupy the same position.<sup>6</sup> Hence, it is more logical to suppose that they form one constituent. Furthermore, the

<sup>6</sup> The presence of *það* and the clausal argument in the same position also contrasts with Ott (2014), who proposed that the CP argument is not merged in the same clause as *það*. Ott points out that both *það* and the CP should be assigned a  $\theta$ -role by default based on the fact that they are both eligible to be arguments of a predicate and, if they were together in the same clause, they would incur into a violation of the  $\theta$ -criterion (see Chomsky (1981)). Therefore, he proposes that they are assigned their  $\theta$ -role by two different instances of a predicate, the latter of which (assigning its  $\theta$ -role to the CP) is deleted at PF. This would mean that the CP is a remnant of an extra-sentential clause. However, also this is a problematic hypothesis. If they really were two different entities, their co-occurrence in the first syntactic position would be unexplicable, since there is only one position available before the finite verb.

presence of *það* can not be even triggered by clausal extraposition because this movement is optional in Icelandic and not mandatory (note here that, as Þráinsson (1979) has observed, the pronoun in (18b) is not necessarily an expletive, since post-verbal *það* is allowed in (18c)):

- (18) a. [**Það** að hann skuli vera farinn] er skrítið  
 that<sub>NOM</sub> that he shall be gone is strange
- b. **Það** er skrítið [að hann skuli vera farinn]  
 that<sub>NOM</sub> is strange that he shall be gone  
 ‘It is strange that he left’
- c. Er **það** skrítið [að hann skuli vera farinn]?  
 is that<sub>NOM</sub> strange that he shall be gone  
 ‘Is it strange that he left?’

These facts point to the evident conclusion that *það* and the clausal argument must form one constituent.

## 2.2 DPs vs. CPs

Now that we have determined that *það* and its associate clausal argument form one constituent, let us compare nominalized and pronounless clauses. As already said in the introduction, I agree with multiple cross-linguistic accounts (Borsley and Kornfilt (2000); Roussou (1991); Hartman (2012); Pietraszko (2019) among many others) on the idea that these two argument types differ and, in particular, that nominalized clauses are DPs while pronounless clauses are bare CPs. We might wonder, however, whether this approach is correct, also if we consider the existence of alternative cross-linguistic models like an all-DP model (cf. e.g. Knyazev (2016); Han (2005)), where the presence or absence of the determiner does not affect the structure of clausal arguments, or even an all-CP model (e.g. Stroik (1996); Yoon (2001)), which considers the determiner an internal specifier of the embedded C. In relation to Icelandic specifically, we also find an all-NP structural model presented by Þráinsson (1979), who is the first to write extensively on the use of anticipatory *það* (although his analysis had a major focus on clausal extraposition rather than the use of *það* itself).

The all-NP and all-DP model are quite similar at the surface, but they are based on different assumptions. In relation to the former model, Þráinsson observes that clausal arguments behave like NPs in Icelandic (note that the DP hypothesis had not been proposed yet at the time) as they undergo the same syntactic transformations, like passivization or coordination with other NPs. Considering these similarities, he suggests that clausal arguments must occupy the positions that host the arguments of a verb, defined at the time as NP slots, and proposes that pronounless clauses and clauses preceded by *það* are embedded into these NP slots. As a result, all clausal arguments are to be interpreted as NPs. This structural model, however, is problematic due to the fact that Þráinsson assumes that a CP can be embedded into a headless NP, which is not possible based on more recent syntactic theories, starting from X-bar theory. On the other hand, if we take a look at the all-DP hypothesis and Knyazev’s (2016) account for Russian in particular, it is case assignment that causes clausal arguments to be DPs in general. Knyazev observes that *that*-clauses are generally able to receive case in case positions in Russian, but case itself can remain unrealized except in prepositional objects and subject position (which makes his analysis similar to the one in Roussou (1991) or Hartman (2012)). As a consequence of these observations, clausal arguments have to be DPs independently from the presence of a determiner. Lastly, the third model we mentioned proposes an all-CP analysis of clausal arguments and is based on the assumption (valid for English) that the overt pronoun



is in complementary distribution with *wh*-movement in indirect questions, which suggests that *it* and a question pronoun contend embedded Spec,C position.

The Icelandic data, however, as we are going to see, supports an asymmetric model of clausal arguments, which excludes the all-NP/DP and the all-CP proposal. Let us start by observing *það* more closely. So far, as the reader has noticed, I assumed that *það* is a demonstrative pronoun, which by norm projects DPs. So, based on this assumption, nominalized clauses should be DPs instead of CPs because *það* is a determiner (against a CP analysis of nominalized clauses). However, one might raise an objection against this argument, claiming that *það* may be a personal pronoun (i.e. ‘it’) instead of a determiner, since the inflectional forms of demonstrative *það* and personal *það* are homophonous. Now, in Þráinsson (2005:339, footnote 10), it is suggested that *það* is a demonstrative pronoun due to the fact that complex DPs are generally introduced by a demonstrative pronoun:

- (19) **Sú** staðreynd að ...  
 that fact that ...  
 ‘The fact that...’

Þráinsson’s argument, however, is not strong enough, as one could argue that complex DPs and arguments preceded by *það* might be two distinct argument structures (especially because *það* is not followed by any noun). Therefore, I present here two arguments based exclusively on clauses preceded by *það* in order to prove that it is a demonstrative pronoun. Firstly, *það* is able to surface before clausal nominal predicates as we have already seen. Nominal predicates are characterized by agreement in gender, number and case with the subject, as we can see from the adjective *slæmur* (‘bad’) in (20a). If instead of an adjective we have a clausal argument, also the overt determiner is inflected per gender, number and case. When the pronoun occurs in masculine or feminine gender, the form that is grammatical is not *hann* (‘he’) or *hún* (‘he’) as would be expected for personal pronouns, but rather *sá* and *sú* (‘that’), which belong to the inflectional pattern of the distal demonstrative pronoun (see (20b)). The agreement in case is even more evident in Exceptional Case Marking constructions as in (20c) where both the subject and the nominal predicate surface in accusative case:

- (20) a. **Afleiðingin** er **slæm**  
 consequence.the<sub>fem</sub> is bad<sub>fem</sub>  
 ‘The consequence is bad’
- b. **Afleiðingin** er [**sú/\*hún**] að við skuldum meira núna].  
 consequence.the<sub>fem</sub> is that<sub>fem</sub>/\*she that we owe more now  
 ‘The consequence is that we owe more money now’
- c. Ég tel **afleiðinguna** vera [**þá/\*hana**] að við skuldum  
 I consider consequence.the<sub>fem-ACC</sub> be that<sub>fem-ACC</sub>/\*her that we owe  
 meira núna].  
 more now  
 ‘I consider the consequence to be that we owe more money now’

What is more, the inflectional properties of the numeral modifier *einn* (‘one, only’), which is able to follow *það*, also suggest that the pronoun must be demonstrative. In fact, in the following example, we can observe that *einn* can follow both the strong and the weak inflectional system of adjectives:

- (21) Hann hugsaði um [**það eitt/eina** að bjarga sjálfum sér]  
 he thought about that only<sub>STR/WK</sub> to save himself  
 ‘He only thought about saving himself’

The same does not happen with personal pronouns. In no case they can be followed by *einn* inflected as a weak adjective. By contrast, demonstratives like *þessi* (‘this’) are allowed to do so:

- (22) a. Hann **einn**/\***eini** var heima  
 he only<sub>STR/WK</sub> was home  
 ‘He only was at home’  
 b. Það **eitt**/\***eina** var heima (where *það* = e.g. *barnið*, ‘the child’)  
 it only<sub>STR/WK</sub> was home  
 ‘He/she (the child) only was at home’  
 c. Þessi **einn/eini** var í geymslunni  
 this only<sub>STR/WK</sub> was in storage.the  
 ‘This only was in the storage’

These arguments clearly show that *það* is a demonstrative pronoun and, therefore, a full-fledged D head which projects DPs.

Now, let us gather further evidence by focusing on the distribution of nominalized and pronounless clauses. An important fact to take into account is that nominalized clauses are unable to surface whenever DPs are not allowed (which also entails that case is not assigned at all in these instances). In fact, verbs like *ætla* (‘intend’) can select pronounless clausal arguments but neither allow *það* nor DPs. By contrast, other predicates like *heyra* (‘hear’) allow both DPs and *það* before clausal arguments:<sup>7</sup>

- (23) a. \*Ég ætla **þetta**  
 I intend this  
 Lit.: ‘I intend this’  
 b. Ég ætla [(\*)**það**] að fara í bíó]  
 I intend that<sub>ACC</sub> to go in cinema  
 ‘I intend to go to the cinema’

<sup>7</sup> As pointed out by Johan Brandtler, the nominalized clause might be ruled out with the verb *ætla* because it is a non-factive verb. Although factivity has been linked in the linguistic literature to nominalized arguments (see e.g. Þráinsson (1979); Kastner (2015)) as we are also going to see in section 4, I believe that the ungrammaticality of (23b) does not depend on factivity. Let us take a look at the verb *heyra*, which is also a non-factive verb that can select nominalized clauses. The content of the embedded clause remains non-presuppositional independently from *það*:

- (ii) Ég heyrði [(**það**) að hann væri farinn] (en hann var ekki farinn)  
 I heard that<sub>ACC</sub> that he were gone but he was not gone  
 ‘I heard that he left (but he didn’t leave)’

*Það* appears to have no influence over presuppositionality. This contrasts with other languages like English, where the pronoun *it* makes the content of an embedded clause presuppositional with the verb *hear* (see also Gentens (2016)):

- (iii) I heard that Mary won the competition (but Mary didn’t win)  
 (iv) I heard **it** that Mary won the competition (# but Mary didn’t win)

- (24) a. Ég heyrði **þetta**  
 I heard this<sub>ACC</sub>  
 ‘I heard this’
- b. Ég heyrði [(**það**) að hann væri farinn]  
 I heard that<sub>ACC</sub> that he were gone  
 ‘I heard that he left’

Moreover, based on the examples we have observed so far, nominalized clauses are distributed throughout all case positions, independently from which case type is assigned – since *það* can only be optional or mandatory in case positions – while pronounless clauses are limited to certain case positions only. *Það* appears to be systematically optional with nominative and accusative clausal objects as well as nominative clausal subjects in pre-verbal position. Since these three argument types are associated with structural case, we can link them to structural case positions. It is true, though, that the pre-verbal position where nominative clausal subjects surface is not considered a case position, so we need to investigate this issue more thoroughly (we will discuss it in more detail in section 3). But let us observe for now the main contrast between nominalized and pronounless clauses with the following table:

(25)	Clauses	Struct. case positions	Lex. case positions	Caseless positions
	Nominalized	Yes	Yes	No
	Pronounless	Yes	No	Yes

This contrast tells us that nominalized clauses are basically dependent on the distribution of DPs and, therefore, should be DPs as well. On the other hand, pronounless clausal arguments tend to be resistant to lexical case assignment<sup>8</sup> but, interestingly, not to structural case. This contrasts with the traditional assumption that pre-verbal nominative clausal subjects must be preceded by an overt determiner.

An all-DP model for clausal complements is also problematic for Icelandic for another reason. Based on Knyazev’s approach, all clausal complements are embedded into a DP projection, which is generally a barrier for extraction. But consider the following examples from Icelandic (see Wood (2012); Þráinsson (1979); Ingason (2018)):

- (26) a. Þeir ákváðu [(**það**) að heimsækja Ólaf]  
 they decided that<sub>ACC</sub> to visit Ólafur<sub>ACC</sub>  
 ‘They decided to visit Ólafur’
- b. Ólaf<sub>i</sub> ákváðu þeir [(**\*það**) að heimsækja \_\_\_\_<sub>i</sub>]  
 Ólafur<sub>ACC</sub> decided they that<sub>ACC</sub> to visit

The clausal object *in situ* here can be preceded by *það* optionally. However, extraction from the clausal argument is allowed only when the pronoun does not surface. If all clausal arguments were really DPs, we would not expect this phenomenon to occur, as the DP projection would block extraction regardless of whether D is realized or not. If we interpret, on the other hand, pronounless clausal arguments as CPs, no structural restriction can prevent extraction. This confirms that there are complement clauses in case positions which are not embedded into a

<sup>8</sup> In relation to lexical case positions, however, there is a subset of verbs assigning dative or genitive case that can unexpectedly select pronounless arguments (see section 4). As also mentioned in the introduction, I propose that these exceptional verbs provide an additional caseless selectional pattern which allows pronounless clauses to surface. In other words, pronounless arguments are incompatible with the lexical case features assigned by these verbs but they can still surface because they can be selected via caseless pattern. This is the reason why I state in the table that clauses without *það* are not allowed in lexical case positions as a general rule.

DP projection. It is true, though, that one can raise an objection to this argument because of clausal extraposition. Extraction from a clausal argument is prevented whenever extraposition of the argument itself has occurred. This happens because, as commonly assumed, extraposed phrases become extraction islands. Now, although we know that a nominalized clause is one constituent, we also know that the clausal argument can be extraposed leaving the pronoun behind. This might happen also when both elements stay side by side at the surface (see e.g. clausal objects in English). Considering all this, we can not be absolutely sure that *það* is in complementary distribution with extraction, since there is a possibility that movement is prevented by clausal extraposition. Although this can be a valid objection to the argument I presented due to the possibility for the clausal argument to be extraposed, one fact remains. When the pronoun does not surface, extraction from the clausal argument occurs. Therefore, the pronounless clause must be a CP, otherwise extraction would be impossible regardless of *það* or extraposition.

Another argument that can demonstrate the asymmetry between nominalized and pronounless clauses is the presence of *það* before indirect questions. In relation to the various arguments presented here above, one might raise an objection based on the all-CP model. As discussed earlier, the all-CP model proposes that the overt pronoun occupies embedded Spec,C position, which prevents *wh*-movement. Now, Spec,C position is the edge of a phase (Chomsky (2008)), which, based on the so-called *Phase Impenetrability Condition*, can undergo syntactic operations. Let us suppose that case assignment is one of these operations. So, one could hypothesize that all clausal arguments can still be CPs where *það* occupies or does not occupy Spec,C on the basis of whether case must be checked or not. In this way, there would be no need for a DP projection embedding the clause. But remember that the argument in favour of the pronoun being in embedded Spec,C is based on the complementary distribution between *it* and question pronouns in English. Now, in Icelandic, contrarily to English, *það* is able to precede indirect questions. So, *það* must be in a higher position than Spec,C, which might undermine the validity of the all-CP model for Icelandic:

- (27) Ég spurði um [**það** hvenær hann kæmi ]  
 I asked about that<sub>ACC</sub> when he would come  
 ‘I asked about when he would come’

If we want to maintain that all clausal arguments are CPs regardless of this contrast between English and Icelandic, we might try to explain the presence of *það* before indirect questions supposing that this type of clause in Icelandic has a more complex external structure, following, for example, the so-called split CP hypothesis (cf. Rizzi (1997) and much subsequent work). However, also this argument can be undermined. Let us consider the case of clausal subjects. From a derivational perspective, the category selected for being the subject is moved to matrix Spec,T (see section 3 for more details). Let us suppose that *það* is in a certain Spec position of the split CP structure. Assuming that the pronoun is the element that undergoes syntactic operations since it is also assigned case, we expect it to be moved to matrix Spec,T, especially because it is a light syntactic element:

- (28) Er **það** mikilvæg spurning [klukkan hvað hann kemur]?  
 is that<sub>NOM</sub> important question at what time he comes  
 ‘Is it an important question at what time he’s coming?’

But the problem is that also the entire constituent can be moved to Spec T:

- (29) Er [það klukkan hvað hann kemur] mikilvæg spurning ?  
 is that<sub>NOM</sub> at what time he comes important question  
 ‘Is it an important question at what time he’s coming?’

If we interpret these examples as instances of a DP subject, there is basically no issue. The entire constituent is moved to Spec,T and then the clausal argument embedded into the DP projection can be optionally extraposed. By contrast, if we interpret the clausal argument as a CP, we have to assume that the pronoun is moved upwards and that it leaves the CP behind (but it is not clear in which position the embedded clause is merged). But the movement of the entire constituent after syntactic operations that basically involve the pronoun only is more costly and not necessary. Since movement must be motivated, there is no reason why the entire constituent must move to subject position. Therefore, an all-CP model can hardly be considered valid for Icelandic.

In sum, the arguments presented here clearly show that there is a distinction between nominalized and pronounless clausal arguments. They have to be DPs and CPs respectively.

### 2.3 Dependent Case Theory

Now that we have established the nature of both argument types, we need to take a closer look at canonical argument positions with particular attention to the distribution of *það* and case assignment. As mentioned in the introduction, I find *Dependent Case Theory* (see e.g. Marantz (2000); Preminger (2011) and much subsequent work) more in line with the Icelandic data rather the traditional Case Theory (see Chomsky (1981) and much subsequent work after Government and Binding theory; Yip et al. (1987); see also Jónsson (2005) for Icelandic).

The main distinction between the two approaches consists in how case is assigned. In the traditional model, case is a feature that a certain head needs to check with an argument or complement. Depending on whether the case feature is assigned by a lexical item or by a functional item, case is defined as lexical or structural. In the DCT model, on the other hand, the instances that we define as structural case are the product of a relationship between nominals in the same domain and not the result of feature checking. DCT, for example, proposes that the nominative-accusative correlation, as well as the ergative-absolutive correlation in languages like Hindi or Basque is the consequence of the relation between the two DPs involved. Observe the model here below:

- (30) [ ... DP<sub>1</sub> ... [ ... DP<sub>2</sub> ... ] ]

In nominative-accusative languages, for instance, accusative case is the manifestation of what is called *dependent case*, i.e. the case assigned to one of the two nominals based on the relationship between DP<sub>1</sub> and DP<sub>2</sub>. Supposing that neither argument needs to be assigned lexical case and that both nominals are part of the same clause, since DP<sub>2</sub> is c-commanded by DP<sub>1</sub>, DP<sub>2</sub> takes accusative case morphology.

Let us take a closer look at how the process of case assignment in DCT works by observing the following hierarchy (see Marantz (2000)):

- (31) lexical/inherent case » dependent case » unmarked case » default case

After the derivational process starts, the first DP arguments to receive case are the ones which are assigned lexical case by the relevant lexical head. Subsequently, the remaining DPs get case by virtue of their relationships. Following the model in (30), the lower DP is assigned dependent case in nominative-accusative languages like Icelandic and it takes accusative case morphology. Then, after Spell-Out, if there are any remaining DPs that still have to be assigned

case, they get unmarked case, i.e. nominative, or default case if the DP is in a fragmented sentence, e.g. the object pronoun *me* instead of *I* in *me too* in English.

Compared to traditional case theory, DCT can explain the contrast that we have seen between clausal arguments in Icelandic and other languages. Whenever clausal subjects are assigned nominative case or clausal objects are assigned nominative or accusative case, the (invisible) case morphology they are assigned is the manifestation of either unmarked case or dependent case, which do not rely upon case features that need to be checked (the consequence of this would be that CRP might not apply to structural case). Since lexical case, on the other hand, depends on case features assigned by lexical items, it is incompatible with CPs and that is why clausal nominalization is required. By contrast, the data from Icelandic are unexpected if we follow the traditional notion of case, which is still based on case features, both for structural and lexical case.

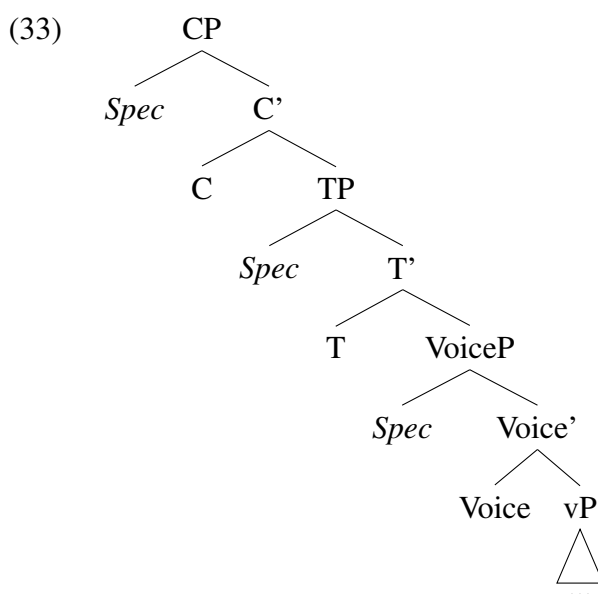
### 3 Clausal subjects

Now, let us focus on the analysis of clausal subjects. Let us recall here that subjects are able to surface in two positions in Icelandic (as it is a V2-language), either before or after the finite verb:

- (32) a. [(**Það**) að ég sé ríkur] breytir öllu því sem þú hélt um mig  
 that<sub>NOM</sub> that I am rich changes all that which you thought about me  
 ‘The fact that I am rich changes everything you thought about me’
- b. Breytir [**\*það**] að ég sé ríkur] öllu því sem þú hélt um mig?  
 changes that<sub>NOM</sub> that I am rich all that which you thought about me  
 ‘Does the fact that I am rich change everything you thought about me?’

Based on the contrast presented, clausal DPs are possible in both positions, but a CP subject is only possible in pre-verbal position.

In order to understand better the reasons for such a contrast, we need to have a clear idea of where these subjects surface in the syntactic structure. Let us take a look at the following tree diagram:



The first position that we can take into account is Spec,T. The Tense head (T), which is the syntactic representation of verbal tense,<sup>9</sup> has the power of attracting the subject to Spec,T. It is usually assumed that, in the syntactic derivation, Spec,Voice is the default merge position for subjects (see e.g. Kratzer (1996)), as it has been noticed that subjects are not arguments of the verb and must be merged at a position higher than VP. Then, based on the so-called *Extended Projection Principle* (Chomsky (1981) and much subsequent work within the Minimalist Program), which prescribes that every sentence must have a subject (with consequent subject-verb agreement), the DP merged in Spec,Voice, which is the closest argument position c-commanded by T where a DP is merged, is promoted to Spec,T in order to check and mark for deletion the EPP-features of T (see also Chomsky (1993)). These EPP-features have been reinterpreted later on as a D-feature (Chomsky (1995)). Note here that, by standard assumptions, the subject in Spec,Voice is not supposed to move freely to higher positions on its own. Rather, since movement must be motivated, it should move by virtue of the D-feature in T itself.

An important question in relation to movement to Spec,T is whether DPs only or also other types of arguments can surface in that position. Let us observe those instances where a clause is embedded into another embedded clause. Since the conjunction occupies C, the item that follows must be the one surfacing in Spec,T. Now, let us look at the following examples:

- (34) ... að [**\*að**] að ég sé ríkur] breytir öllu því sem þú hélt um mig  
 ... that that<sub>NOM</sub> that I am rich changes all that which you thought about me  
 ‘... that the fact that I am rich changes everything you thought about me’
- (35) \* ... að [**undir rúminu**] telst góður staður til að fela sig  
 ... that under bed.the is considered good place to to hide oneself  
 Meant: ‘... that under the bed is considered a good place to hide’

If we test DPs, CPs and PPs, only DPs turn out to be grammatical in Spec,T. Therefore, it seems that DPs are mandatory in subject position. There might be, however, a complication caused by so-called stylistic fronting (see e.g. Thráinsson (2007); Holmberg (2000); Ott (2009)). Whenever a subject gap occurs, various types of items (so, not only DPs) can be moved to Spec,T. Alternatively, expletive *að* takes Spec,T position if no element is fronted. Here is an example of a fronted past participle in an embedded clause:

- (36) a. ... að **að** var búist við því að hann hefði logið  
 that it<sub>EXP</sub> was expected that<sub>DAT</sub> that he would have lied
- b. ... að **búist** var við því að hann hefði logið  
 that expected was that<sub>DAT</sub> that he would have lied  
 ‘...That it was expected that he would lie’

Stylistic fronting, however, does not constitute a problem for our analysis of clausal arguments. In fact, also Mainland Scandinavian languages present the same distribution of subjects we have observed earlier (see the example here below; also cf. Josefsson (2006:footnote 12)), so that DPs tend to be mandatory in Spec,T. But, differently from Icelandic, they exhibit no instances of stylistic fronting (see e.g. Ott (2009)). In other words, stylistic fronting has no relevance for the distribution of CPs or DPs in subject position:

<sup>9</sup> T is also a cover term for other features related to subject and verbal agreement such as person and number (see Sigurðsson (2012)), which can be represented as further projections in the syntactic structure, in case one wants to focus in more detail on them. Subject-verb agreement is not strictly relevant in our analysis, so we can simply focus on TP.

- (37) a. [(**Det**) att jag är rik] förändrade ditt omdöme om mig SWEDISH  
 it that I am rich changed your opinion about me  
 ‘The fact that I’m rich changed your opinion about me’
- b. Förändrade [**\*det**] att jag är rik] ditt omdöme om mig?  
 changed it that I am rich your opinion about me  
 ‘Did the fact that I’m rich change your opinion about me?’
- c. ... att [**\*det**] att jag är rik] förändrade ditt omdöme om mig  
 ... that it that I am rich changed your opinion about me  
 ‘... that the fact that I’m rich changed your opinion about me’

Thus, we can conclude that in Spec,T the clausal subject must be a DP, both in matrix and embedded clauses. Since the D-feature is responsible for subject movement from Spec,Voice to Spec,T, we can infer that the D-feature itself requires DPs to occupy Spec,T position and applies a filter to all non-DP types.

Let us move now to analyzing the pre-verbal position, which is actually more problematic. Assuming that the verb can surface either in T or C, two landing sites which represent the pre-verbal position are possible, Spec,T and Spec,C. But since CPs are not allowed in Spec,T, the only position they can occupy is Spec,C. Alternatively, Spec,C can also be occupied by a clausal DP subject in case it is topicalized (although it would result into a string-vacuous movement). This leads us to the following pattern. DP subjects can surface in both Spec,T and Spec,C, while CP subjects only in the latter, as illustrated in the following examples:

- (38) [Að ég sé ríkur] breytir öllu því sem þú hélt um mig (SPEC C)  
 that I am rich changes all that which you thought about me
- (39) [**Það** að ég sé ríkur] breytir öllu því sem þú hélt um mig (SPEC T/C)  
 that that I am rich changes all that which you thought about me  
 ‘The fact that I am rich changes everything you thought about me’

The contrast between pre- and post-verbal position is crucial, as bare CP subjects are available in Icelandic but not in other languages like Persian or Modern Greek. How can we explain their existence? We might, for example, follow Koster (1978) in his analysis of clausal arguments and claim that clausal subjects are actually topics rather than real subjects, since they can not surface in Spec,T but only in Spec,C. But if a CP is not the subject of a sentence due to the fact that it can not surface in Spec,T, what is the real subject then in those instances? We might try to solve this problem by exploring the possibility that an invisible expletive checks the D-feature in T, since the expletive can not be phonetically realized after the finite verb in Icelandic:

- (40) **Það** rignir / Rignir (**\*það**)?  
 it rains / rains it  
 ‘It is raining / Is it raining?’

This, however, can be quite problematic from a cross-linguistic perspective. Expletives in Mainland Scandinavian languages, differently from expletive *það*, must be phonetically realized in post-verbal position. Since the distribution of clausal subjects in pre- and post-verbal position in Icelandic and, for example, Swedish, is similar, we would expect to see a realized expletive after the verb in Swedish if this hypothesis is correct. But this is not the case as illustrated in the following example:

- (41) \* [Att jag är rik] förändrade **det** ditt omdöme om mig SWEDISH  
 that I am rich changed it your opinion about me  
 Meant: ‘The fact that I’m rich changed your opinion about me’



However, there is another possibility that might sound more reasonable than the invisible expletive hypothesis (but it will still remain a mere speculation left in this paper for further research). Recall our discussion on Shahar (2008). In his analysis of English, *it* represents an underspecified copy of the CP argument which is moved via extraposition. Now, although his model is not compatible with Icelandic, we can still apply some of its concepts to clausal subjects. If a CP argument can leave a copy which can be phonetically realized as *it* after movement, it also means that the copy itself can be a DP (or an NP if we follow Shahar’s terminology), perhaps after a process similar to *Trace Conversion* (see e.g. Takahashi (2010)). So, in Icelandic, if the CP has any possibility to move to Spec,T before being moved further to Spec,C, and leave there a trace that can become compatible with the D-feature in T, the CP itself would be the subject since the D-feature is checked by an element of its chain.

If this hypothesis turned out to be valid, we would be fully able to explain the asymmetrical distribution of *það* before and after the finite verb. Consider all the possible movement patterns of CP and DP subjects to Spec,T and Spec,C. We would have four different patterns, illustrated here below:

(42) Subject type	Up to Spec,T only	To Spec,T and further to Spec,C
CP	Ruled out	Yes
DP	Yes	Yes

This basically corresponds to the data we get from clausal subjects. The distribution in pre- and post-verbal position is asymmetrical simply because the D-feature in T rules out CP arguments that are not moving further than Spec,T. However, if the CP moves to Spec,C (i.e. topicalization), it leaves an unrealized copy which – provided that it is able to become a DP copy – can be checked by the D-feature.

But also this interesting possibility raises some questions. If the D-feature is responsible for movement, CPs should not be allowed to move at all from their original position. So, it is not clear how CPs can move in the first place. However, if we posited that the D-feature is not responsible for movement, things might change radically. Is there a possibility that CP and DP subjects are triggered to subject position by another feature? We might find a possible answer to this question in an exceptional instance of nominative clausal subjects. In the following examples, the clause that plays the role of the nominative subject is an *if*-clause, which by norm lacks a  $\theta$ -role. As we can see, *if*-clauses need to be nominalized both in pre- and post-verbal position:

- (43) a. Eyðileggur [**það** ef hann kemur] allt planið?  
 ruins that<sub>NOM</sub> if he comes all plan.the  
 ‘Does it ruin all the plan if he comes?’
- b. [**Það** ef hann kemur] eyðileggur allt planið  
 that<sub>NOM</sub> if he comes ruins all plan.the  
 ‘It ruins all the plan if he comes’

Let us consider the facts here. Even if structural case does not rule out CPs, a bare *if*-clause is still not allowed to be a subject in Spec,C, due to the fact that it does not bear a  $\theta$ -role. By contrast, both *that*-clauses (as well as indirect questions and infinitive clauses) and DPs do have the ability to bear a  $\theta$ -role. Therefore, there is a possibility that the justification for movement of a CP or DP to subject position is their  $\theta$ -role itself rather than the D-feature in T, which, on the other hand, needs to be checked by the DP that has moved to Spec,T. So, if we suppose that there is a  $\theta$ -feature in T which is able to attract the closest argument c-commanded by T that can bear a  $\theta$ -role, we might explain why *that*-clauses as well as DPs are able to move from

their merging position. Now, if the existence of such a feature is proven to be valid in future research, it is possible that the D-feature does not cause movement at all but still needs to be checked by DPs locally.

Before we move to clausal objects, let us also take a look at clausal subjects that are assigned lexical case. In these instances, *það* is mandatory both in pre- and post-verbal position:

- (44) a. [**\*Þess**] að hann væri farinn] varð ekki vart  
 that<sub>GEN</sub> that he was gone became not aware  
 ‘The fact that he left went unnoticed’  
 b. Varð [**þess**] að hann væri farinn] ekki vart?  
 became that<sub>GEN</sub> that he was gone not aware  
 ‘Did the fact that he left go unnoticed?’

The contrast we see here with the nominative pattern shows that lexical case rules out CPs entirely, but structural case does not. If this is correct, then it also means that structural case has no case features that need to be checked, as DCT entails. In other words, nominative case is basically the product of unmarked case, which is realized through morphology only (although CPs can not show any sign of it). All this confirms the first condition proposed in the introduction, which is that CPs in Icelandic are resistant to lexical case but not to structural case.

## 4 Clausal direct objects

We can now move to clausal direct objects. Considering what we have discussed about clausal subjects, we can already make some predictions as to when *það* is optional or mandatory. In fact, since CP arguments are possible when structural case is assigned and ungrammatical with lexical case, we can predict that the same will happen in clausal direct objects as well. To a great extent, these predictions are correct, as shown in the following examples:<sup>10</sup>

- (45) a. Björk harmaði [(**það**) að rannsakendurnir sendu ekki umsóknina]  
 Björk<sub>NOM</sub> regretted that<sub>ACC</sub> that researchers.the sent not application.the  
 ‘Björk regretted it that the researchers didn’t submit their application’  
 b. Nánast öllum í hópnum leiðist [(**það**) að Karl sé alltaf sá  
 nearly everyone in group.the is bored that<sub>NOM</sub> that Karl<sub>NOM</sub> is always that  
 eini sem talar á þessum fundum]  
 one who speaks in these meetings  
 ‘Almost everyone in the group find boring that Karl is always the one who talks in these meetings’

<sup>10</sup> Since nominative and accusative *það* are homophonous, one might wonder whether the object of the verb *leiðast* (‘be bored of’) in (45b) is really in nominative case. Here is an example with a common DP which presents a morphological distinction between nominative and accusative case. As we can see, the object is assigned nominative:

- (v) Nánast öllum í hópnum leiðist **fundurinn**/**\*fundinn**  
 nearly everyone in group.the is bored meeting.the<sub>NOM</sub>/<sub>\*ACC</sub>  
 ‘Almost everyone in the group find the meeting boring’

- c. Ég fagna [\***(því)** að ég skuli hafa hætt við flugið]  
I rejoice that<sub>DAT</sub> that I shall have cancelled flight.the  
'I rejoice in the fact that I cancelled my flight'
- d. Ég sakna [\***(þess)** að María skuli ekki vera hér]  
I miss that<sub>GEN</sub> that María<sub>NOM</sub> shall not be here  
'I miss it that María is not here' (from Þráinsson 1979:230)

Accusative and nominative direct objects are the ones which are assigned structural case and, as we can see, the pronoun is optional. I assume that CPs are systematically allowed in these instances, as I am not aware of any example where *það* is mandatory in accusative or nominative clausal direct objects.

However, lexical case, this time, constitutes a problem for our predictions. Since lexical case corresponds to a formal case feature, we should expect the pronoun to be always mandatory as with predicates like *fagna* ('rejoice') and *sakna* ('miss') in (45c-d). But this contrasts with various verbs assigning dative case like *spá* ('predict') and some verbs assigning genitive case like *spyrja* ('ask') where the pronoun is unexpectedly optional:

- (46) a. Sara spáði [**(því)** að Gísli myndi sigra]  
Sara<sub>NOM</sub> predicted that<sub>DAT</sub> that Gísli<sub>NOM</sub> would win  
'Sara predicted that Gísli would win'
- b. Ég gleymdi [**(því)** að ég átti að hitta Maríu]  
I forgot that<sub>DAT</sub> that I had to meet María<sub>ACC</sub>  
'I forgot that I had to meet María'
- c. Ég neitaði [**(því)** að ég væri kominn heim]  
I denied that<sub>DAT</sub> that I was come home  
'I denied that I had come home'
- d. Lárus spurði [**(þess)** hvort María væri farin]  
Lárus<sub>NOM</sub> asked that<sub>GEN</sub> whether María<sub>NOM</sub> were gone  
'Lárus asked whether María was gone'

The same asymmetry can be observed after syntactic transformations. When the clausal argument is passivized and moved to Spec,C, *það* remains mandatory with *fagna*-verbs or optional with *spá*-verbs, which might suggest that CPs and DPs are base-generated as such (differently from last resort nominalizations as proposed in Hartman (2012)). As we can expect, however, Spec,T position filters out CPs systematically, independently from the original distributional value of *það in situ*. Here is an example of the verb *spá* and *fagna*:

- (47) a. Katrín spáði [**(því)** að liðið hefði sigrað] þó að  
Katrín<sub>NOM</sub> predicted that<sub>DAT</sub> that team.the would have won although  
andstæðingarnir væru frekar sterkir  
opponents.the were quite strong  
'Katrín predicted that the team would have won although its opponents were quite strong'
- b. [**(Því)** að liðið hefði sigrað] var spáð þó að  
that<sub>DAT</sub> that team.the would have won was predicted although  
andstæðingarnir væru frekar sterkir  
opponents.the were quite strong  
'The fact that the team would have won was predicted although its opponents were quite strong'

- c. Var [**(því)** að liðið hefði sigrað] spáð þó að  
 was that<sub>DAT</sub> that team.the would have won predicted although  
 andstæðingarnir væru frekar sterkir?  
 opponents.the were quite strong  
 ‘Was the fact that the team would have won predicted although its opponents  
 were quite strong?’
- (48) a. María fagnaði [**(því)** að hann skyldi hafa útskrifast] þrátt fyrir það  
 María<sub>NOM</sub> rejoiced that<sub>DAT</sub> that he should have graduated despite that<sub>ACC</sub>  
 að hann hefði fengið lága meðaleinkunn  
 that he had got low average.grade  
 ‘I rejoiced in learning that he graduated regardless of the fact that he got a low  
 average grade’
- b. Var [**(því)** að hann skyldi hafa útskrifast] fagnað þrátt fyrir það að  
 was that<sub>DAT</sub> that he should have graduated rejoiced despite that<sub>ACC</sub> that  
 hann hefði fengið lága meðaleinkunn?  
 he had got low average.grade  
 ‘Were the news that he graduated received with much joy regardless of the fact  
 that he got a low average grade?’
- c. [**(Því)** að hann skyldi hafa útskrifast] var fagnað þrátt fyrir það að  
 that<sub>DAT</sub> that he should have graduated was rejoiced despite that<sub>ACC</sub> that  
 hann hefði fengið lága meðaleinkunn  
 he had got low average.grade  
 ‘The news that he graduated were received with much joy regardless of the fact  
 that he got a low average grade’

The main question here is how we can account for such a contrast. One possibility that has already been proposed in the linguistic literature is the factivity hypothesis (Kallulli (2006); in the case of Icelandic, see Þráinsson (1979)). Based on the observations in Kiparsky and Kiparsky (1971), the factivity hypothesis posits that factive predicates (emotive factives in particular) tend to select structurally complex arguments, whereas non-factives select simpler argument structures. In particular, Þráinsson (1979) shows that *fagna*-verbs and *spá*-verbs reflect this asymmetry on the basis of whether *það* is mandatory or optional. In other words, the clausal object of *fagna*-verbs needs to be structurally complex due to the emotive factive component of the verb. *Spá*-verbs, on the other hand, can select CP arguments due to the fact that they are non-factives and, therefore, should select simpler clausal arguments. This hypothesis, however, has many exceptions. For instance, emotive factive verbs like *harma* (‘regret’) and many other predicates selecting a prepositional object like *vera svekkjur yfir* (‘be annoyed about something’) tend to exhibit an optional pronoun regardless of factivity:<sup>11</sup>

- (49) Ég harma [(**það**) að ég skuli hafa hætt við flugið]  
 I regret that<sub>ACC</sub> that I shall have cancelled flight.the  
 ‘I regret it that I have cancelled my flight’
- (50) Allardyce er svekkjur yfir [(**því**) að hafa fengið sparkið]  
 Allardyce<sub>NOM</sub> is annoyed over that<sub>DAT</sub> to have got kick.the  
 ‘Allardyce was annoyed about the fact that he was fired’

<sup>11</sup> Predicates like *vera svekkjur yfir* also have a verbal variant in middle voice, e.g. *svekkjast yfir*. Also in this case, the prepositional object presents an optional pronoun.

In other words, Þráinsson’s argument is problematic as factivity is unable to fully explain the distribution of clausal DPs and CPs. Alternatively, we might try, for example, to limit Þráinsson’s hypothesis to lexical case only instead of extending it to all object types, considering the fact that the contrast between *spá* and *fagna* on one hand and *spyrja* and *sakna* on the other is consistent with the factivity hypothesis. However, there are still some exceptions in instances of lexical case assignment that would remain unexplained, for example the verb *kreffast* (‘demand’), which requires a clausal DP despite the fact that it is not a factive verb:

- (51) Verkefnastjórinn krafðist [\*(þess) að skýrslunni yrði skilað  
 project-manager.the demanded that<sub>GEN</sub> that report.the became submitted  
 strax]  
 immediately  
 ‘The project manager demanded that the report was submitted immediately’

Thus, we need to explore a different possibility rather than following the factivity hypothesis. As of now, it is not clear to me why there is a distinction between *fagna*-verbs and *spá*-verbs, so I am not going to propose here an alternative model to the factivity hypothesis. However, in relation to *spá*-verbs, which represent the exception to the rule considering what we have discussed so far, I propose that their ability to select CPs depend on the fact that they provide an additional caseless selectional pattern. This hypothesis is supported by two pieces of circumstantial evidence. Firstly, clausal objects of *spá*-verbs like *halda fram* (‘claim’) can exhibit an optional default *það* after passivization and movement to Spec,C, whereas *fagna*-verbs are unable to do so.<sup>12</sup> The presence of a default *það* for a nominalized clausal argument might be a clue of the presence of a caseless pattern in the *spá* class.<sup>13</sup>

- (52) a. Evrópusambandið hélt (því) fram [að við stunduðum ofveiðar]  
 European Union.the claimed that<sub>DAT</sub> that we did overfishing  
 ‘The European Union claimed that we did overfishing’  
 b. [Því/Það að við stunduðum ofveiðar] var haldið fram  
 that<sub>DAT/DEF</sub> that we did overfishing was claimed  
 ‘It was claimed that we did overfishing’
- (53) a. María fagnaði [\*(því) að hann skyldi hafa útskrifast]  
 María<sub>NOM</sub> rejoiced that<sub>DAT</sub> that he should have graduated  
 ‘I rejoiced in learning that he graduated’  
 b. [Því/\*Það að hann skyldi hafa útskrifast] var fagnað  
 that<sub>DAT/DEF</sub> that he should have graduated was rejoiced  
 ‘The news that he graduated were received with much joy’

Secondly, the possible presence of a caseless pattern can also be supported by the fact that not only is *það* able to precede clausal arguments, but also some prepositional phrases expressing time embedded into a PP, as illustrated in the following example:

- (54) Reglurnar frá (því) [PP í fyrra] hafa breyst  
 Rules.the from that<sub>DAT</sub> last year have changed  
 ‘The rules from last year have changed’

<sup>12</sup> Þráinsson (1979:228ff.) obtained the same results with extraposed clausal arguments.

<sup>13</sup> Some speakers, however, consider a default *það* less acceptable with *spá*-verbs as well.

- (55) Verðin eru ennþá að lækka frá **(því)** [PP í júlí]  
 prices.the are still to decrease from that<sub>DAT</sub> in July  
 ‘The prices are still decreasing since July’
- (56) Þetta kemur fram í reglugerð heilbrigðisráðherra frá **(því)** [PP um helgina]  
 this comes forth in regulation health.minister from that<sub>DAT</sub> in weekend.the  
 ‘This is stated in the health minister’s regulation of last weekend’<sup>14</sup>

Let us take a closer look at these constructions. The preposition *frá* (‘from’) generally assigns dative case to its complement. However, in this case, we have PPs as complements of the preposition. By norm, a preposition is unable to be assigned case due to the restrictions imposed by CRP. This is also proven by the very fact that *það* surfaces, which suggests that there is a need for the PP complement to be nominalized due to its incompatibility with case assignment. But since the pronoun is optional, we can draw one possible conclusion. The preposition *frá* has two selectional patterns, one where case is assigned (and which involves the presence of *það* for case checking) and the other one where no case is assigned and where the prepositional complement is able to surface without nominalization.<sup>15</sup> Now, if we transpose this pattern to clausal direct objects, all this would support the idea that predicates like *fagna* are able to provide only one selectional pattern which involves lexical case assignment. Predicates like *spá*, on the other hand, behave exactly like the preposition *frá* with PP complements, as they provide two selectional patterns, one with lexical case assignment and one caseless.

The reader might wonder why I propose the existence of a caseless selectional pattern when it might be easier to suggest, considering the facts presented here, that verbs like *spá* simply select CPs and DPs while verbs like *fagna* can only select the latter and that the preposition *frá* in the constructions we have just seen can select DPs and PPs. The hypothesis of a caseless selectional pattern is less costly. The very fact that *það* can precede PPs and CPs tells us that they have something in common, which is the lack of ability to check case features. Moreover, there are predicates like *spyrja* which are able to take DPs, PPs and CPs as complements:

- (57) Lárus spurði [(þess) hvort María væri farin]  
 Lárus<sub>NOM</sub> asked that<sub>GEN</sub> whether María<sub>NOM</sub> were gone  
 ‘Lárus asked whether María was gone’
- (58) Lárus spurði **um** [(það) hvort María væri farin]  
 Lárus<sub>NOM</sub> asked about that<sub>ACC</sub> whether María<sub>NOM</sub> were gone  
 ‘Lárus asked whether María was gone’

From a derivational perspective, considering the status of verbs like *spyrja*, it is less costly for a lexical item to provide two selectional patterns based on case (lexical and caseless) rather than three selectional patterns based on the argument type. This is why I find the caseless pattern hypothesis simpler.

All the facts described here appear to be consistent with our hypothesis in relation to case assignment. First of all, we gathered more evidence that structural case does not correspond to formal case features since *það* is optional with nominative and accusative clausal objects. We can infer that accusative case for objects is the product of dependent case while nominative case for objects is the product of unmarked case, since the subject in the constructions with

<sup>14</sup> This is a modified version of an actual example found in <https://www.umfi.is/utgafa/frettasafn/ithrottastarf-i-gang-a-hofudborgarsvaedinu-med-kvodum/>.

<sup>15</sup> Unfortunately, this phenomenon is not so common among prepositions. I am not aware of any other preposition other than *frá* that can take a PP complement and even allow the presence of *það*. However, it still represents a precious source of data to explore the properties of anticipatory *það*.

nominative objects we have observed is assigned lexical case (dative) and is, therefore, unable to trigger dependent case. We have also seen that CPs are incompatible with lexical case features, and also that some predicates like *spá* are an exception to this rule. There is, however, some circumstantial evidence that suggests that verbs like *spá* provide an additional selectional pattern which can allow CPs to surface without checking case features. So far, I am not aware of why verbs like *fagna* are unable to provide a caseless selectional pattern, so this issue is left for further research.

## 5 Clausal indirect objects

Let us have a closer look now at indirect objects. Icelandic ditransitive constructions are interesting in relation to case assignment because different case patterns are attested (see Þráinsson (2005)):

- (59) dative+accusative (e.g. *gefa* ‘give’)  
 dative+dative (e.g. *lofa*, ‘promise’)  
 dative+genitive (e.g. *óska*, ‘wish’)  
 accusative+dative (e.g. *svipta* ‘confiscate, deprive’)  
 accusative+genitive (e.g. *spyrja* ‘ask’)  
 accusative+accusative (very rare, e.g. *kosta* ‘cost’)

Indirect objects, therefore, can only surface in dative or accusative case. Here are two examples of double object constructions:

- (60) a. Karl spurði **mig margra spurninga**  
 Karl spurði me<sub>ACC</sub> many<sub>GEN</sub> questions<sub>GEN</sub>  
 ‘Karl asked me many questions’  
 b. Lögreglan svipti **hana ökuskírteininu**  
 police.the confiscated her<sub>ACC</sub> driving license.the<sub>DAT</sub>  
 ‘The police confiscated her driving license’

Indirect objects can also be clauses, even if this happens quite rarely. Interestingly, *það* is mandatory both when the object is assigned dative case and accusative case, which means that the clausal argument must be a DP:

- (61) a. Ég veitti [\***(því)** að Jón var að gráta] enga athygli  
 I gave that<sub>DAT</sub> that Jón<sub>NOM</sub> was to cry no attention  
 ‘I paid no attention to the fact that Jón was crying’  
 b. Þessi ritgerð svipti [\***(það)** að Konrad skyldi hafa fórnað sér]  
 this essay deprived that<sub>ACC</sub> that Konrad<sub>NOM</sub> should have sacrificed himself  
 öllu vægi í sögunni  
 all importance in story.the  
 ‘This essay deprived the fact that Konrad sacrificed himself of all its importance in the story’

Now, how do we account for the exclusive presence of clausal DPs? Let us recall some facts that have emerged in clausal subjects and direct objects. First of all, the presence of mandatory *það* can either be linked to the impossibility for a CP to check lexical case or to the fact that only DPs are allowed in certain positions due to the presence of a D-feature as we have seen

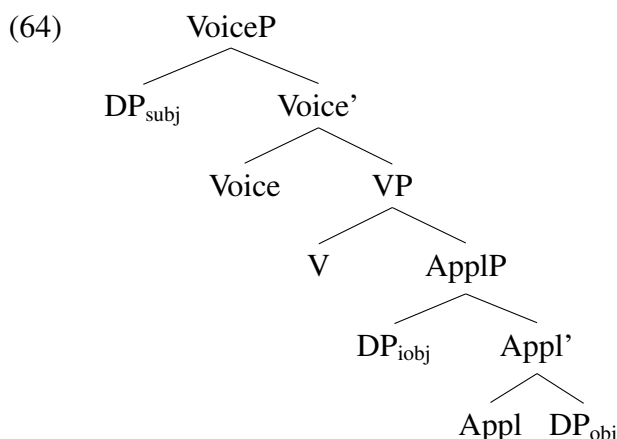
in the case of Spec,T. Furthermore, we have also observed that the distributional value of *það* does not change after movement (for example to Spec,C after passivization), except to Spec,T.

Now, let us focus on accusative case on indirect objects. Accusative indirect objects become nominative after passivization, as illustrated in the examples here below. This fact suggests that accusative is the structural case assigned to direct objects (see e.g. Wood (2015)). If this is a correct analysis, then the reason for a mandatory *það* can not be attributed to case:

- (62) Var **hún** svipt ökuskráttinu?  
 was she<sub>NOM</sub> confiscated driving license.the<sub>DAT</sub>  
 ‘Was her driving license confiscated?’
- (63) Var [**það**] að Konrad skyldi hafa fórnað sér] svipt öllu  
 was that<sub>NOM</sub> that Konrad<sub>NOM</sub> should have sacrificed himself deprived all  
 vægi í sögunni?  
 importance in story.the  
 ‘Was the fact that Konrad sacrificed himself deprived of all its importance in the story?’

The reader might wonder here whether there is a possibility that pronominal obligatoriness in clausal indirect objects is determined by the fact that they might be PPs where a null P assigns case obligatorily. This hypothesis is based on the fact that many languages tend to have PPs as indirect objects. Moreover, it would be consistent, for example, with Collins and Thráinsson (1996), who simply assume that Icelandic indirect objects can be PPs. However, the presence of indirect objects in Spec T after passivization constitutes a problem for this possibility. We have already observed that the D-feature in T prevents non-DP types from surfacing in Spec T. So, the passivized indirect object can not be a PP. Consequently, it appears to be more likely that indirect objects are DPs rather than PPs.

What I propose as solution for this puzzle is that indirect clausal objects must be DPs due to another D-feature which needs to be checked. Assuming the *Applicative head* structure shown in (64) (Pylkkänen (2000; 2008) and much subsequent work), I suggest that Appl has a D-feature which is checked by the indirect object in Spec,Appl, exactly as the subject in Spec,T checks the D-feature in T (note here that only the low applicative structure is shown because Icelandic does not exhibit high applicative structures, see Wood (2015)):



Now, the presence of a D-feature in Appl is assumed in various accounts (described as an EPP-feature though, see e.g. Georgala and Whitman (2007); Georgala (2011)). But is this possibility confirmed by Icelandic? Let us take a look at the following example. When the accusative indirect object is passivized and moved to Spec,C, the pronoun is unexpectedly optional:



- (65) [(**Það**) að Konrad skyldi hafa fórnað sér] var svipt öllu  
 that<sub>NOM</sub> that Konrad<sub>NOM</sub> should have sacrificed himself was deprived all  
 vægi í sögunni  
 importance in story.the  
 ‘The fact that Konrad sacrificed himself was deprived of all its importance in the story’

Remember here that the distributional value of *það* should not change after movement. So, the fact that indirect objects can surface as CPs in Spec,C basically tells us that D-feature checking on Spec,Appl and Spec,T (after passivization of the indirect object) has priority over case, even if case is structural and is compatible with CP arguments.

By contrast, the same can not be said of dative indirect objects, as the pronoun remains mandatory in Spec,C as well. Therefore, it is plausible that dative case is the manifestation of lexical case in indirect objects, or at least of a case feature that needs to be checked:

- (66) [\*(**Því**) að Jón var að gráta] var engin athygli veitt  
 that<sub>DAT</sub> that Jón was to cry was no attention given  
 ‘No attention was paid to the fact that Jón was crying’

Now, the reader might wonder whether there is any possibility that it is V and not Appl that determines the argument type of indirect objects. Clausal direct objects show us that this can not be the case. In fact, in ditransitive constructions, clausal direct objects show us a similar CP/DP distribution to the one of direct objects of transitive constructions. The pronoun is, for instance, optional in accusative case, and can be optional or mandatory in instances of lexical case. Therefore, the argument types in direct objects must be determined by structural case or V (in instances of lexical case). By contrast, indirect object types are determined by Appl:

- (67) Karl sýndi mér [(**það**) að þeir voru búnir að strauja símann]  
 Karl<sub>NOM</sub> showed me<sub>DAT</sub> that<sub>ACC</sub> that they were finished to format phone.the  
 ‘Karl showed me that they had formatted the phone’
- (68) Ég lofa þér [(**því**) að fara ekki þangað aftur]  
 I promise you<sub>DAT</sub> that<sub>DAT</sub> to go not there again  
 ‘I promise you to not go there again’
- (69) María oskar ykkur [\*(**þess**) að prófið gangi vel]  
 María<sub>NOM</sub> wishes you<sub>DAT</sub> that<sub>GEN</sub> that exam.the goes well  
 ‘María wishes for you that your exam goes well’

The facts from clausal indirect objects clearly confirm our preliminary hypothesis. Structural case is compatible with CPs as no case features need to be checked, while lexical case is not. Moreover, D-feature checking in Spec,T and Spec,Appl has priority over case assignment, so that CP arguments are ruled out in these positions.

## 6 Conclusions

In this paper, we have shown that clausal arguments in Icelandic can be DPs or CPs. This structural asymmetry is proven by the fact that DPs and CPs exhibit a different distribution across case and caseless positions. In particular, nominalized clauses can occupy case positions like DPs, but not caseless positions, which means that this type of arguments must be DPs as well. Moreover, data from extraction suggest that bare CPs must exist as arguments (differently from

an all-DP model in case positions proposed in Knyazev (2016) for Russian) since movement from the clausal argument is possible.

In relation to case assignment, the data from Icelandic show that structural and lexical case have a different effect on clausal arguments. Structural case is correlated with optional *það*, which means that CP arguments are allowed to surface, whereas the pronoun is mandatory when lexical case is assigned, which means that CPs are ruled out. The impossibility for CPs to check lexical case features is predicted by CRP, but structural case appears to not have any case features to check, differently from various cross-linguistic analyses that propose that clausal subjects must be assigned structural case (e.g. Roussou (1991); Hartman (2012); Knyazev (2016)). The lack of case features in instances of nominative and accusative case assignment suggest that the case system of Icelandic is more consistent with *Dependent Case Theory*. This distribution of DP and CP arguments is also influenced by two factors. First of all, some predicates assigning lexical case can provide an additional caseless selectional pattern, which allows CPs to surface. The same phenomenon can be observed with nominalized PPs selected by a preposition. Secondly, D-feature checking has priority over case assignment, filtering out CPs independently from whether lexical or structural case is assigned. D-features have an impact on Spec,T and Spec,Appl position.

## References

- Borsley, R. D. and Kornfilt, J. (2000). Mixed extended projections. *Syntax and Semantics*, 32:101–131.
- Boskovic, Z. and Nunes, J. (2007). The copy theory of movement. *The copy theory of movement*, 107:13.
- Chomsky, N. (1981). *Lectures on binding and government*. Dordrecht: Foris.
- Chomsky, N. (1993). A minimalist program for linguistic theory. *The view from Building*, 20:1–52.
- Chomsky, N. (1995). Categories and transformations. In *The minimalist program*, pages 219–394. MIT Press.
- Chomsky, N. (2008). On phases. *Current Studies in Linguistics Series*, 45:133.
- Collins, C. and Thráinsson, H. (1996). Vp-internal structure and object shift in Icelandic. *Linguistic inquiry*, pages 391–444.
- De Cuba, C. and Ürögdi, B. (2010). Clearing up the facts on complementation. *University of Pennsylvania Working Papers in Linguistics*, 16(1):41–50.
- Delicado Cantero, M. (2013). Clausal substantivization in Spanish: syntax and constraints. *Australian Journal of Linguistics*, 33(2):106–120.
- Gentens, C. (2016). The discursive status of extraposed object clauses. *Journal of Pragmatics*, 96:15–31.
- Georgala, E. (2011). Scrambling verb-final languages and the underlying order of objects in ditransitive constructions. *University of Pennsylvania Working Papers in Linguistics*, 17(1):105–114.

- Georgala, E. and Whitman, J. (2007). Ditransitives and applicative structure in greek. In *Proceedings from the Annual Meeting of the Chicago Linguistic Society*, volume 43, pages 77–91. Chicago Linguistic Society.
- Han, H. J. (2005). A nominal-shell for CPs: Beyond subject CPs. In *Proceedings from the Annual Meeting of the Chicago Linguistic Society*, volume 41, pages 95–109. Chicago Linguistic Society.
- Hartman, J. (2012). *Varieties of clausal complementation*. PhD thesis, MIT.
- Holmberg, A. (2000). Scandinavian stylistic fronting: How any category can become an expletive. *Linguistic inquiry*, 31(3):445–483.
- Ingason, A. K. (2018). Icelandic case-marked CP. *Canadian Journal of Linguistics*, 63(3):444–453.
- Jahromi, A. M. (2011). Expletives in Modern Persian. *Acta Linguistica Asiatica*, 1(3):45–56.
- Jónsson, J. G. (2005). Merkingarhlutverk, rökliðir og fallmörkun [thematic roles, arguments and case-marking]. *Íslensk tunga III: Setningar*, pages 350–409.
- Josefsson, G. (2006). Semantic and grammatical genders in swedishindependent but interacting dimensions. *Lingua*, 116(9):1346–1368.
- Kallulli, D. (2006). Triggering factivity: Prosodic evidence for syntactic structure. In *Proceedings of 25th West Coast Conference on Formal Linguistics*, pages 211–219.
- Kastner, I. (2015). Factivity mirrors interpretation: The selectional requirements of presuppositional verbs. *Lingua*, 164:156–188.
- Kim, J.-B. and Sag, I. (2005). Variations in English object extraposition. In *Proceedings from the Annual Meeting of the Chicago Linguistic Society*, volume 41, pages 251–265. Chicago Linguistic Society.
- Kiparsky, P. and Kiparsky, C. (1971). Fact. In Steinberg, D. and Jakobovits, L., editors, *Semantics*, pages 345–369. Cambridge: Cambridge University Press.
- Knyazev, M. (2016). *Licensing clausal complements: The case of Russian čto-clauses*. LOT.
- Kornfilt, J. and Whitman, J. (2011). Introduction: Nominalizations in syntactic theory. *Lingua*, 7(121):1160–1163.
- Koster, J. (1978). Why subject sentences dont exist. *Recent transformational studies in European languages*, pages 53–64.
- Kratzer, A. (1996). Severing the external argument from its verb. In Rooryck, J. and Zaring, L., editors, *Phrase structure and the lexicon. Studies in natural language and linguistic theory*, volume 33, pages 109–137. Dordrecht: Springer.
- Marantz, A. (2000). Case and licensing. *Arguments and case: Explaining Burzio's generalization*, pages 11–30.
- Ott, D. (2009). Stylistic fronting as remnant movement. *Working papers in Scandinavian syntax*, 83:141–178.

- Ott, D. (2014). Controlling for movement: Reply to Wood 2012. *Working Papers in Scandinavian Syntax*, 92:58–65.
- Panagiotidis, E. P. and Grohmann, K. K. (2009). Mixed projections: Categorical switches and prolific domains. *Linguistic Analysis*, 35(1):141.
- Pietraszko, A. (2019). Obligatory CP nominalization in Ndebele. *Syntax*, 22(1):66–111.
- Preminger, O. (2011). *Agreement as a fallible operation*. PhD thesis, Massachusetts Institute of Technology.
- Pylkkänen, L. (2000). What applicative heads apply to. *University of Pennsylvania Working Papers in linguistics*, 7(1):197–210.
- Pylkkänen, L. (2008). *Introducing arguments*. MIT Press.
- Rizzi, L. (1997). The fine structure of the left periphery. In *Elements of grammar*, pages 281–337. Springer.
- Rosenbaum, P. S. (1967). *The grammar of English predicate complement structures*. Cambridge: Mass, MIT Press.
- Roussou, A. (1991). Nominalized clauses in the syntax of Modern Greek. *UCLworking papers in linguistics*, 3:77–100.
- Shahar, J. (2008). *What some its are: Non-referential it, extraposition, and copies*. Ph.D. Thesis. City University of New York.
- Sigurðsson, H. Á. (2012). Minimalist *c/case*. *Linguistic Inquiry*, 43(1):191–227.
- Stowell, T. A. (1981). *Origins of phrase structure*. PhD thesis, MIT.
- Stroik, T. S. (1996). Extraposition and expletive-movement: A minimalist account. *Lingua*, 99(4):237–251.
- Takahashi, S. (2010). The hidden side of clausal complements. *Natural Language & Linguistic Theory*, 28(2):343–380.
- Thráinsson, H. (2007). *The syntax of Icelandic*. Cambridge University Press.
- Wood, J. (2012). Against the movement theory of control: Another argument from Icelandic. *Linguistic Inquiry*, 43(1):322–330.
- Wood, J. (2015). *Icelandic morphosyntax and argument structure*. Dordrecht: Springer.
- Yip, M., Maling, J., and Jackendoff, R. (1987). Case in tiers. *Language*, pages 217–250.
- Yoon, H.-J. (2001). Expletive it in English. *Studies in Generative Grammar*, 11:543–562.
- Þráinsson, H. (1979). *On Complementation in Icelandic*. New York: Garland.
- Þráinsson, H. (2005). *Íslensk tunga III: Setningar: handbók um setningafræði*. Reykjavík: Almenna bókafélagið.