

# Externalization: the case of C/case

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This paper discusses NP-licensing (abstract ‘Case’) and morphological case, arguing that there is no direct relationship between these phenomena. While syntax is about relations between two or more elements, e.g. Voice,  $v^*$  and an NP, these relations are recast or reinterpreted in terms of discrete features such as +ACC in morphology, such features being non-existent in syntax. Moreover, the syntactic relations (Voice matching, etc.) that underlie morphological case-marking are distinct from those that have commonly been analyzed as ‘Case’ (finite Tense matching, Person matching). Linguistic mapping processes are fundamentally non-isomorphic, there thus being no one-to-one mappings from syntax onto morphology or onto PF in general. However, there is no escape from the dilemma that internal language can only be studied through the incomplete reflection of externalized language (Plato’s cave allegory).

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## **1. Introduction<sup>\*</sup>**

In a recent state of the art article, “On the development of Case Theory: triumphs and challenges”, Lasnik (2008) describes the development of generative Case Theory over the last three decades, with Vergnaud’s famous 1977 letter to Chomsky and Lasnik as a starting point. According to Lasnik (2008:18):

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<sup>\*</sup> I am grateful to Terje Lohndal for valuable comments and discussions.

“Vergnaud’s now very familiar basic idea was that even languages like English with very little case morphology pattern with richly inflected languages in providing characteristic positions in which NPs with particular cases occur.”

I will discuss this hypothesis in the following, arguing that the distribution of NPs (overt and silent) is unrelated to case. The introduction of ‘Case’ into generative theory was an important step forward, paving the way for feature based research of a great number of syntactic phenomena. As it turns out, however, ‘abstract Case’ or NP-licensing involves matching relations (finite Tense matching, Person matching) that are distinct from the relations that underlie overt case-marking (Voice matching, etc.). A plausible (not to say ‘adequate’) theory of language externalization remains to be developed, but case-marking is among the most intensively studied instantiations of externalization. Generative syntax theory needs to respect and accommodate unearthed and accessible knowledge of case.

Vergnaud’s basic idea was coined as the *Case Filter* in the Principles and Parameters approach. In *Lectures on Government and Binding*, Chomsky (1981:49, 175) formulated it in two slightly different manners. The initial, simpler version is given below:

- (1) \*NP if NP has phonetic content and has no Case

The case system of English, Chomsky (1981:50) suggested, comprises nominative, objective and genitive case:

- (2) a. Subjects of tensed clauses carry *nominative* case  
 b. Verbs and prepositions assign *objective* case  
 c. *Genitive* case is assigned to NP specifiers (as in *John’s book*)

This is almost identical to the system suggested by Jean-Rauger Vergnaud in his 1977 letter (see Vergnaud 2008, Lasnik 2008).

The analysis or description in (2) was presumably not meant to be exhaustive, as suggested by the fact that English has many more NP types than mentioned there, such as vocative NPs, dislocated and adjoined NPs, adverbial NPs and predicative NPs:

- |        |   |                     |
|--------|---|---------------------|
| (3) a. | <i>John</i> , you are a genius!             | Vocative NP         |
| b.     | <i>John</i> , yeah, he wants to join us.    | Left dislocated NP  |
| c.     | He is tired, <i>the old man</i> .           | Right dislocated NP |
| d.     | She only stayed <i>two weeks</i> .          | Adverbial NP        |
| e.     | He jumped high, in fact <i>two meters</i> . | Adverbial NP        |
| f.     | He was <i>three minutes</i> late.           | Adverbial NP        |

- |    |  |                |
|----|--|----------------|
| g. | She is <i>two years</i> older than me.   | Adverbial NP   |
| h. | She came to visit me <i>four times</i> . | Adverbial NP   |
| i. | She is <i>one year</i> old.              | Adverbial NP   |
| j. | She was <i>a famous linguist</i> .       | Predicative NP |
| k. | It is only <i>John and Mary</i> .        | Predicative NP |

These NP-types must have been assumed to fall under the Case Filter, given the formulation in (1). They are indeed assigned case in languages with case-marking of full (non-pronominal) NPs. In Icelandic, for instance, they are marked as follows:

- |     |    |   |            |
|-----|----|---|------------|
| (4) | a. | <i>John</i> , you are a genius!             | Nominative |
|     | b. | <i>John</i> , yeah, he wants to join us.    | Nominative |
|     | c. | He is tired, <i>the old man</i> .           | Nominative |
|     | d. | She only stayed <i>two weeks</i> .          | Accusative |
|     | e. | He jumped high, in fact <i>two meters</i> . | Accusative |
|     | f. | He was <i>three minutes</i> (too) late.     | Dative     |
|     | g. | She is <i>two years</i> older than me.      | Dative     |
|     | h. | She came to visit me <i>four times</i> .    | Dative     |
|     | i. | She is <i>one year</i> old.                 | Genitive   |
|     | j. | She was <i>a famous linguist</i> .          | Nominative |
|     | k. | It is only <i>John and Mary</i> .           | Nominative |

Other case languages (Latin, German, Russian, Finnish, Hungarian, etc.) mark some of these non-argumental NP types differently. Variation of this sort is problematic for any syntactic theory of case. However, the problem was evidently assumed to be a rather trivial one: “In other languages ... there are other Cases and other conditions under which Case is assigned ...” (Chomsky 1981:50).

Case and the Case Filter were assumed to account for the *licensing and distribution of overt NPs*. One of the central facts that were thus assumed to be explained is that the ‘case assigning heads’, V and P, can take an NP complement, whereas various other types of heads cannot (in English):

- |     |    |                                |
|-----|----|--------------------------------|
| (5) | a. | John admired <b>her</b> .      |
|     | b. | John was with <b>her</b> .     |
| (6) | a. | * John’s admiration <b>her</b> |
|     | b. | * John was proud <b>her</b> .  |

The ungrammaticality of (6) was attributed to the fact that nouns and adjectives (+N categories, cf. Chomsky 1981:48) cannot assign objective case in English. Insertion of the semantically empty preposition *of* ‘rescues’ examples of this sort from violating the Case Filter:<sup>1</sup>

- (7) a. John’s admiration of **her**  
 b. John was proud of **her**.

*A-movement* was also attributed to case or the lack thereof, the basic idea being that NPs can ‘escape’ from a position where they cannot be assigned case to another position where they are successfully case-marked. This is typical of passives and raising constructions in languages like English, as illustrated for the passive in (8); the dash indicates the position from where the raised NP has moved:

- (8) a. Therefore, he admired **her**.  
 b. \* Therefore, (it) was admired **her/she**.  
 c. Therefore, **she** was admired \_\_\_\_.

Consider also the subject-to-subject raising facts in (9) and the *tough*-movement facts in (10):

- (9) a. It seems [that **he** knows her].  
 b. \* It seems [**he** to know her].  
 c. **He** seems [ \_\_\_\_ to know her.]
- (10) a. It is easy [to please **her**].  
 b. \* It is easy [**her/she** to please \_\_\_\_].  
 c. **She** is easy [to please \_\_\_\_].

The standard account of these facts has long been that the finite Infl or Tense is a nominative case assigner, whereas the non-finite Infl/Tense does not assign case, the subject position of non-finite clauses thus being a non-case position. Lexicalizing the subject position of infinitives would thus violate the Case Filter, leading to a crash. Raising the ‘critical’ NP out of this position into the subject position of a finite matrix clause provides it with nominative

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<sup>1</sup> There is a lot of cross-linguistic variation within this domain. Thus, at least some nouns and adjectives can assign case (commonly dative) in many languages, including most of the Germanic languages. Conversely, German and Swedish have no case marker (preposition) in the so-called pseudo-partitive construction (type ‘three bottles water’), in contrast to e.g. English (*three bottles \*(of) water*) – and Icelandic, in spite of its case system. I will not discuss (inconclusive and poorly understood) facts of this sort any further here.

case, thereby rescuing the derivation.<sup>2</sup> Similarly, the object position of passive participles was assumed to be a non-case position, the object thus being forced to raise to the subject position, where it is assigned nominative case, as in (8c).

Seemingly, this approach also accounts for the fact that English control infinitives cannot have a spelled out NP, resorting to PRO instead:

- (11) a. John tried [PRO to leave].  
 b. \* John tried [**he/him/his** to leave].

In contrast, infinitival subjects both can and must be spelled out when they have access to an infinitive-external case assigner, as in (12) and (13):

- (12) a. For [**him** to leave] would be a mistake.  
 b. \* For [PRO to leave] would be a mistake.
- (13) a. I consider [**her** to be the smartest kid in the class].  
 b. \* I consider [PRO to be the smartest kid in the class].

On the face of it, it would thus seem that this is “the best of all possible worlds”, where GB Case Theory provides an account of an array of facts that would otherwise seem to be unrelated. Not surprisingly, many researchers thus embrace this approach, assuming or arguing that case is a central property of syntax. For a recent example, see Legate (2008).

In view of Icelandic quirky case facts (see section 4 below), Chomsky, on the other hand, contends that “structural Case is demoted in significance” (2000:127) and that “Case assignment is divorced from movement” (2001:17). Some generative researchers have even claimed that syntax contains *no* case features (see Sigurðsson 2008a, 2008c and the references there, e.g. Marantz 2000 and McFadden 2004), a standpoint that I will, once again, be arguing for here. However, it should be stressed that it does not follow that case is independent of or unrelated to syntax. Rather, a crucial distinction must be made between the notions ‘relation’ and ‘feature’, case *features* being (abstract) morphological PF representations or interpretations of syntactic *relations*. On such an approach, syntax contains no discrete units or objects that could be referred to as ‘Case’ or ‘cases’, which in turn means that syntactic processes cannot operate with or in terms of case, whereas their effects can be encoded or reflected by case-marking in morphology. Importantly, also, the relations that underlie case (Voice matching, etc.) are distinct from the ones that underlie NP-licensing (Person matching, etc.).

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<sup>2</sup> Notice, however, that *tough*-movement would raise an NP from one case position to another, suggesting that (10a) and (10c) are not related by A-movement.

I will consider the nature of case more closely in the next section, turning to NP-licensing in section 3. In section 4, I discuss ‘hard evidence’ from Icelandic illustrating that the standard Case Theory is mistaken about the correlation between NP-licensing and case. In section 5, I develop an analysis of NP-licensing, illustrating that the syntactic relations that underlie the licensing of an overt NP are distinct from those that underlie its case-marking. Section 6 concludes the paper with a discussion about language externalization and some of the challenges of Externalization Theory.

## 2. On case

One can a priori conceive of case as being a feature or features in syntax in a number of ways. The simplest assumption would be that the morphological cases directly reflect various syntactic case features such as NOM, ACC, ERG, DAT, GEN, ABL(ative), INST(rumental), VOC(ative), etc. Call this hypothesis *Case Isomorphism*. On this hypothesis there would be a one-to-one case feature mapping between syntax and morphology. However, as languages have different inventories of morphological cases, this approach is self-contradictory: It would mean that case features could not possibly be universal, which in turn would mean that they could not be part of Narrow Syntax, given that it is universal.

A slightly more refined version of case isomorphism is an approach where Universal Grammar has a finite set of CASES,  $\text{Univ}_{\text{CASES}}$ , and where individual languages make different parametric selections from that set. Call this hypothesis *Partial Case Isomorphism*. For this approach to work, the putative universal CASES would have to be discrete units, as sketched in (14):

$$(14) \text{Univ}_{\text{CASES}} = \{\text{CASE}_1, \text{CASE}_2, \text{CASE}_3, \text{CASE}_4, \dots \text{CASE}_n\}$$

On the (implausible) assumption that each CASE corresponds to or serves a universal function, one could say that language X opts for expressing, say,  $\text{CASE}_3$  and  $\text{CASE}_4$  with two distinct morphological cases, such as the genitive and the dative, whereas language Y opts for expressing both functions with a single case, such as the genitive. German and Modern Greek are a language pair of this sort, German making a distinction between genitive and dative case, whereas that distinction has disappeared from Greek. On this approach there would be a partial isomorphism between syntax and morphology, consisting of many-to-one and presumably also of some one-to-one case mappings. A special, albeit a highly common case would be all-to-one mappings in caseless languages such as Chinese.

For a parametric approach to case to work, it is not sufficient that the universal CASES be discrete units. There would also have to be some implicational hierarchy among the CASES (and

the morphological cases as well, see below). Such a hierarchy would enable the language learner to postulate distinct values for a parameter that would take roughly the following form:

(15) Make morphological distinctions between the CASES such that:

- a.  $CASE_1 \neq CASE_2 - CASE_n$
- b.  $CASE_1 \neq CASE_2 \neq CASE_3 - CASE_n$
- c.  $CASE_1 = CASE_2 \neq CASE_3 - CASE_n$
- d.  $CASE_1 = CASE_2 = CASE_3 \neq CASE_4 \neq CASE_5 - CASE_n$
- e. etc. ...

Linguists might then assign the label ‘nominative’ to  $CASE_1$  in languages (15a) and (15b), to  $CASE_1 = CASE_2$  in language (15c), to  $CASE_1 = CASE_2 = CASE_3$ , in language (15d), etc.

Without an implicational case hierarchy of some sort, the CASES would be expressed in randomly different manners in different languages. That is, there is then no way of excluding some language from identifying  $CASE_1$  with  $CASE_4$  and  $CASE_9$ , while another language might lump  $CASE_1$  with  $CASE_6$  and  $CASE_{11}$ ,  $CASE_4$  with  $CASE_7$ , and so on. That would in turn mean that there could be no regular mappings between the syntactic CASES and their morphological exponents in individual languages, the isomorphic approaches sketched above thus being refuted.

Blake (2001:156) tentatively suggested that there might be a morphological case hierarchy or scale, such that languages ‘pick’ their cases in a specific preference order: NOM over ACC/ERG over GEN over DAT over LOC over ABL and/or INST, over ‘other’ cases such as PART(itive), COM(itive), PUR(positive), PERL(ative). However, a cursory glance at morphological case data across languages suggests that there is no such strict hierarchy. Modern (spoken) Faroese, for instance, has DAT but no GEN, and Finnish has a general GEN but no inflectional ACC except for pronouns, and it also has PART, ‘instead of’ the higher ranked DAT, LOC, ABL and INST.

The following rather natural tendencies can be discerned:

(16) *Common typological case generalizations*

- a. If a language has two or more cases, one of them is unmarked in relation to the other(s) and is thus likely to be called ‘nominative’ by linguists.
- b. The second case is likely to distinguish objects (ACC) from subjects (NOM) or to specifically distinguish agentive subjects (ERG) from other core arguments (NOM).<sup>3</sup>
- c. The third case is likely to be an adnominal ‘possessor case’ (GEN).
- d. The fourth case is likely to be an ‘additional core argument case’ (DAT).
- e. The fifth case is likely to mark spatial relations (LOC, etc.).

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<sup>3</sup> Blake refers to absolutive case as nominative; I adopt that terminology.

- f. Additional cases are likely to make more fine grained distinctions between arguments or NPs in general (ABL, INST, PART, COM, etc.).

However, this is not a strict implicational hierarchy – it is just a rather loose description of common tendencies (that follow from the plain overall generalization that the cases distinguish between different types of NPs). That is, this could not provide a basis for the language learner to build his or her parametric case selection on.

The individual morphological cases clearly do not reflect or interpret unitary syntactic primitives. This is seen by a number of facts. One such fact is that the cases have different applications (domains) in different languages. Split ergativity is perhaps the most widely studied instantiation of differences of this sort, that is, ergative marking may correlate with aspect, person or some other grammatical category, and it may do so differently in different languages, without any other clear semantic correlates (Dixon 1994, among many). Different divisions of labor between the cases is also seen in many accusative languages. This is even true of closely related languages with identical morphological case systems. Thus, Swedish and Danish both have basically the ‘English case system’ (with genitive case on pronouns and full NPs and a NOM/ACC distinction for pronouns), nonetheless applying NOM and ACC differently, Swedish for instance using NOM as a general predicative case (type *It must have been we*), in contrast to Danish and English.<sup>4</sup>

German and Icelandic is another pair of closely related languages with identical case inventories, NOM, ACC, GEN, DAT. By and large, the use of the cases is similar in both languages, but there are also a number of striking differences. Thus, basically synonymous (and even cognate) prepositions often assign different cases in the two languages, German *ohne* ‘without’ and Icelandic *án* ‘without’ thus assigning ACC versus GEN, respectively, German *zu* ‘to(wards)’ assigning DAT and Icelandic *til* ‘to(wards)’ assigning GEN, and so on. Similarly, there are some Icelandic – German verb ‘pairs’ with GEN on the direct object in Icelandic but regular ACC (or a prepositional phrase) in German (‘demand’, ‘look for’, ‘miss’, ‘wait for’, ‘wish’, ...). Icelandic direct GEN objects typically denote *unaffected themes* (complements of atelic predicates), which are of course about equally as common in German as in Icelandic, one of numerous facts that suggest that universal (or at least common) semantic/syntactic categories are variably disambiguated in the morphology of different languages, the variation as such being basically arbitrary (Sigurðsson 2006a, 2008b).

Even more strikingly, a large number of verbs assign dative case to direct objects in Icelandic (e.g. Barðdal 2001, Maling 2002, Svenonius 2006), whereas compatible verbs assign regular accusative in German, giving rise to pairs like the following (see Sigurðsson 2008c for the German and Icelandic examples):

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<sup>4</sup> For two different minimalist approaches to variation of this sort, see Sigurðsson 2006b and Lohndal 2006.



	<i>German</i>	<i>Icelandic</i>
(17) a.	throw ACC	throw DAT
b.	spill ACC	spill DAT
c.	steer ACC	steer DAT
d.	forget ACC	forget DAT
e.	greet ACC	greet DAT
f.	invite ACC	invite DAT

Maling (2002:31) reports that “Maling (1996) [an unpublished work] contains a list of more than 750 [Icelandic] verbs which in at least one sense occur with a dative object ... The corresponding number of verbs for German is approximately 140, and for Russian fewer than 60 ...”. As discussed in Sigurðsson (2008c) the different distribution of the cases in the two languages commonly has *no* discernable semantic correlates at all (when the languages are compared). Thus, the DAT marking in Icelandic in (17) does not express any semantics that is absent from the corresponding German accusatives.

There is a huge confusion regarding this point in the literature (see e.g. Blume 1998), so let me discuss it a bit further before proceeding: Distinct cases commonly relate to at least some distinct semantics *within one and the same language*. Thus, language X might mark many of its direct objects denoting unaffected themes as GEN and many of its direct objects denoting moved themes as DAT, in contrast to ‘regular’ ACC theme objects. A sister or a cousin language Y, with the same inventory of cases, might on the other hand not make any case distinctions between its theme objects, although it obviously has the same semantic categories of direct theme objects: unaffected ones, moved ones, etc. Both languages might also use the cases for common purposes, marking most benefactive indirect objects as DAT, adnominal possessors as GEN, and so on. It is clear, then, that DAT in language X is commonly related to the semantic category ‘a moved theme’, whereas that is not so in language Y, which instead uses ACC for moved themes. However, DAT moved themes in X do not have any semantics that is absent from or different in ACC moved themes in language Y. Accordingly, it is accurate to say that the case distinction has *no* semantic correlates – across the languages.

The cases are not ‘carriers of meaning’ (not any more than ‘words’ are), they are diacritic features, indicating that a certain construction may contain some special underlying relation between distinct NPs (subjects, objects, etc.) and also between individual NPs and their syntactic environment. Such semantic/syntactic relations can never be identified with the diacritic feature indicating their presence, much as light cannot be identified with gas, even though a certain wavelength of light may indicate the presence of a certain gas type at some place in universe.

In short, parametric selection of a language specific set of cases from a universal set of CASES would not be of any substantial help to the language learner. Simply put, language learners have to learn both the case inventory of their language and the specific division of labor between the cases in that particular language – as painfully experienced by teachers and students of many foreign languages, of course.

Even within individual languages, the morphological cases cannot be analyzed as discrete *syntactic* units or primitives. Thus, as demonstrated in Sigurðsson (2008a, 2008c), DAT in Icelandic marks not only **a)** most benefactive indirect objects but also **b)** agentive NPs in passive *af-* ‘by’ phrases, **c)** certain experiencer subjects, **d)** certain theme subjects, **e)** free benefactives, **f)** numerous direct objects (as in 17), **g)** complements of many prepositions, **h)** complements of certain adjectives, **i)** several types of adverbial NPs, ...

The other three cases (NOM, ACC, GEN) also have multiple, disparate functions. Thus, NOM marks not only **a)** agentive subjects but also **b)** many non-agentive subjects, **c)** subjects of certain ECM-like infinitival and small clause complements (see below), **d)** objects of certain experiencer predicates (see below), **e)** predicative NPs, **f)** many dislocated NPs, **g)** vocative NPs, **h)** certain exclamative NPs, ... <sup>5</sup> This particular case distribution is partly specific for Icelandic, but it is a common property of moderately rich case languages (like Latin, Old English, German, Russian, etc.) that each case, for instance NOM, has many disparate functions.

Saying that Narrow Syntax has and operates in terms of features like +NOM and +DAT, such features being expressed as nominative and dative case in morphology, amounts to making two quite implausible and contradictory claims: 1) that disparate relations, such as ‘agentive subjects’ and ‘certain objects’, are in some sense *syntactically* unitary in a given language; 2) that Narrow Syntax nonetheless has different +CASE<sub>x</sub> features (e.g. different +NOM features) in different languages. The first claim is incorrect on any current understanding of syntactic relations and also self-contradictory (as the relations in question would not be analyzed as unitary in other structurally similar languages, with different case-marking strategies). The second claim would entail that there can be no universal Narrow Syntax.

Grammar interprets certain syntactic relations in terms of certain cases in certain languages. Evidently, though, individual morphological cases do not directly correspond to or map discrete syntactic units or features. It does not follow that such units could not exist in syntax. However, it does follow that the putative syntactic CASE features would have to be much more abstract or ‘smaller’ than the morphological case features that represent them (cf. McFadden 2004, ch. 6.3, and the references cited there). Thus, on an approach like the one sketched in (15) above one might want to explore the possibility that syntax has a number of CASE ‘particles’, call them *cs-particles*, that can be fused together in certain slightly different

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<sup>5</sup> One might be tempted to believe that a system like this is just unlearnable chaos. As a matter of fact, however, the Icelandic case system has remained basically intact since Iceland’s settlement, more than 1100 years ago.

manners and represented or expressed by, say, a dozen of different markers in morphology (abstracting away from complex spatial case systems, with several dozens of cases). If so, however, one would not expect there to be any simple and clear isomorphism between the syntactic CASES or cs-particles and the morphological cases. More seriously, the disparate uses of individual cases, so briefly sketched above, indicates that each case may represent or reflect quite distinct syntactic relations. Plausibly, DAT direct theme objects, DAT direct benefactive objects, DAT complements of prepositions, DAT indirect objects, DAT iterative adverbial NPs, and so on, do not all represent one and the same set of cs-particles. One might want to suggest that several different sets of cs-particles may yield DAT in morphology, but such a view calls for some semantic/syntactic understanding of the individual particles, or else it is not clear that we are doing anything more than just restating the fact that dative case shows up in a number of constructions that, as far as can be seen, do not have any unifying syntactic property in common.

The Case Filter is usually interpreted such that NPs or Ns must be ‘born’ with a case feature. If so, and if syntax is crash free (Frampton & Gutman 2002), the case feature cannot be valued at the outset (in the numeration). Rather, it must be an abstract feature, call it simply *+Case*, getting valued in the course of the derivation. This is, roughly, how Chomsky has been conceiving of structural ‘Case’ in most of his minimalist research.<sup>6</sup> His ideas in this vein are sometimes referred to as the *Activity Condition* (Nevins 2005, among others). In *Derivation by Phase*, Chomsky phrases the core idea as follows (2001:6):

“N is active only when it has structural Case. Once the Case value is determined, N no longer enters into agreement relations and is “frozen in place” ... Structural Case is not a feature of the probes (T, *v*), but it is assigned a value under agreement.”

Similarly, Lasnik (1995:16, see also Lasnik 2008:22) assumes that a “visible Case feature ... makes [a] ... constituent available for ‘A-movement’. Once Case is checked off, no further movement is possible.” Rizzi’s ideas (e.g. 2004) about ‘criterial’ positions and the EPP are obviously closely related to this ‘activity approach’ (see also Pesetsky & Torrego 2001 and related work). I will be assuming more or less the same understanding of core argument NP-licensing here. Crucially, however, this understanding does *not* carry over to case nor does it even throw any light on it.

As a matter of fact, Chomsky’s leading idea as cited above, the *Abstract Case Theory*, **ACT**, is not a theory of case, not even a weak or a modest one (nor is it intended to be, as far as I

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<sup>6</sup> However, notice that the idea contradicts the lexicalist approach to syntax (which must arguably be abandoned in any way); there is no way of ‘producing’ or merging Icelandic NOM *firðir* ‘bays, firths’ and *nætur* ‘nights’ vs. DAT *ffjörðum*, *nóttum* or GEN *ffjarða*, *nátta* without a morphologically valued case feature. That is, these forms cannot be merged directly from the lexical array.

can judge). It says that subjects of tensed clauses have ‘T-Case’ whereas objects have ‘v-Case’, but it does not claim that these different ‘Cases’ will be differently represented in the morphology of English (or any other language). ATC simply makes no claims about morphology and hence it is not about case (in the usual sense of that term), instead being about abstract relations between NPs and their syntactic environment. The GB-theoretic Case Filter approach did make claims about the relationship between syntactic structures and case morphology, but minimalist ACT does not take a stand on the issue (even though it is commonly believed to do so).

English does make a morphological distinction between nominative and non-nominative pronominal case, whereas Chinese, for instance, makes no such distinction. Postulating case realization parameters might thus seem to be a possible road to take from here. The basic case realization parameter would have to be formulated roughly along the lines sketched in (18):

- (18) Make a (single) morphological distinction between ‘T-Case’ and ‘v-Case’:
- a. On all N(P)s types, or
  - b. On the following types of N(P)s:
    - b1. on N(P)<sub>1</sub>, or
    - b2. on N(P)<sub>1</sub> and N(P)<sub>2</sub>, or
    - b3. on N(P)<sub>1</sub>, N(P)<sub>2</sub>, N(P)<sub>3</sub>, or
    - b4. on ...

N<sub>1</sub> might for instance comprise personal pronouns, N<sub>2</sub> certain other pronoun types, N<sub>3</sub> common nouns, and so on. For languages with two or more object cases and two or more subject cases (quirky cases, split ergativity), additional ‘sub-parameters’ would have to be formulated and something would also have to be said about case-marked non-argumental NPs, cf. (3) and (4) above.

As discussed above, parametric approaches to case do not seem to work at all, but, for the sake of argument, let us put that aside here, instead proceeding with this ‘parametric experiment’. If one wants to make at least some minimal connection between ATC and morphological case, something like this ‘parametric route’ would have to be taken.

Regardless of whether an approach along these lines is available, it does not depend on there being a special syntactic *feature*, +Case. ‘T-Case’ and ‘v-Case’ are *relations*, not features, and it would seem to be entirely sufficient to say that the *n*-feature of an N(P) makes it syntactically active, thus an appropriate candidate for entering the T-Agree and the v-agreement relations. The grounding or ‘freezing effect’ then naturally and simply follows if an NP cannot enter but one active relation of the relevant T- or v-agreement type (not an obvious or an innocent assumption, but the claim made under ATC). Given that N(P)s have an *n*-feature, an additional +Case-feature is redundant and should thus be excluded from the model, as

uninterpretable ‘trash’, much as elements that violate the Inclusiveness Condition (cf. Chomsky 1995:228). Plainly, claiming that N(P)s have abstract Case is no different from the tautological statement that “N(P)s are N(P)s”.

The hypothesis that syntax has a feature or features, more or less directly represented by morphological case features is mistaken and must be abandoned. Rather, case features, such as +NOM and +DAT, are exclusively morphological (albeit abstract), whereas the relations they interpret or express are syntactic. Call them, simply, *N-relations*. Insisting on referring to these relations as ‘Case’ does not increase our understanding of their nature. They need to be studied in their own right, as what they are: relations.

### 3. N-relations and NP-licensing

We face two challenges: First, a plausible account of how N-relations map onto various morphological case systems remains to be developed. Second, given that syntax has no +Case-features, we need to take a fresh look at the NP-licensing issue: Is it possible and meaningful to account for NP-licensing in terms of N-relations instead of +Case-features? I will argue that this question has a positive answer, but that NP-licensing relations are nonetheless distinct from case-triggering relations.

Something like the ‘chart’ in (18) above is commonly taken to be promising, but, to my knowledge, no one has ever tried to follow it any further than just the first leg, roughly as stated in (19):

- (19) In any (accusative) case language, ‘T-Case’ is expressed as nominative case, and ‘*v*-Case’ is expressed as non-nominative case (for Ns of the type  $N_x$ ).

This does not take us very far. First of all, it is not clear that (19) says anything more than the generalization in (16a), stating that a language with a two or more cases usually has an unmarked case, commonly referred to as ‘nominative’ by linguists. If a language also has verb-agreement with nominative subjects (or objects), one can say that the finite verb agrees whenever it successfully PF-probes an NP with unmarked case, otherwise typically showing up in a default form (3SG in Icelandic, cf. Sigurðsson 2006a, 2008a). It does not follow that NPs that enter the T-agreement relation are the only NPs in the language that carry the unmarked case, nor does it follow that direct objects are the only NPs carrying the marked case. In short, (19) is not a theory of how N-relations map onto morphology, it is just an initial sketch of how the core properties of the simplest possible case systems might be understood. The next step would be to account for nominative and accusative marking (as well as other markings) of less central NPs than just subjects and direct objects, the third step would be to develop an account of the ergative-

accusative dichotomy, a fourth step would be to develop an understanding of split ergativity and of split quirky systems, a fifth step would be to account for different reflections of ‘v-Case’ in different constructions and different languages, and so on and so forth.

The fact that we don’t have any universal theory of morphological case is not surprising. As Otto Jespersen famously stated: “no one ever dreamed of a universal morphology” (1992:52, see also Chomsky 1995:3). It seems possible that morphology has some universal features (properties), but anything beyond that is far-fetched and unlikely. Putative Universal Morphology or Universal PF in general should, for instance, offer a coherent account of how oral languages relate to sign languages and also of how both oral languages and sign languages relate to written languages and other linguistic signing systems. No such account has been developed (cf. MacNeilage 2008). As recently suggested by Chomsky (2008b) the reason why there are so many languages “might be that the problem of externalization can be solved in many different and independent ways, either before or after the dispersal of the original population.”

The fundamental reason why at least parts of the expressive, externalizing component, including morphology, are plausibly non-language-specific, thus differing from Narrow Syntax, is that syntax is about abstract relations, whereas morphology/PF is about expressing or interpreting these relations in terms of discrete units (abstract in morphology, ‘concrete’ in phonetics) that are bound to be more or less arbitrary. Anything beyond the initial sketch in (19) might thus not be about Narrow Syntax but about different subsystems of the human body (vocal and auditory systems, etc.). These other subsystems are also universal (and partly human-specific), but their externalization or interpretation of the internal language of Narrow Syntax is evidently not universal.

Perhaps, it is unfair to blame proponents of generative Case Theory for not having developed or even aimed at developing “a plausible account of how N-relations map onto various morphological case systems”, as I formulated it above. If so, however, the question arises whether the Case Filter has any content or predictive power at all. In its original conception it was a “filter of the PF-component” (Chomsky 1981:49), but saying that an NP like *Zhangsan* in Chinese or *John* in English is filtered out in PF unless it carries case or Case is not a very bold or precise claim. Since the Abstract Case Theory, ATC, does not make any claims about morphology, as we have seen, its ‘Case’ notion is in fact indistinguishable from the notion ‘phonetic NP-content’, the only ‘non-Cased’ form of *Zhangsan* and *John* being phonological null(s).<sup>7</sup>

Reconsider English subject-to-subject raising, as in (9), repeated here as (20):

(20) a. It seems [that **he** knows her].

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<sup>7</sup> Begging the question of whether nulls can be ‘a form of’ an overt element.

- b. \* It seems [**he** to know her].
- c. **He** seems [ \_\_\_ to know her.]

The standard C/case account of the ungrammaticality of (20b) is crucially based on the assumption or claim that nominative case is assigned by finite Tense. Given that overt subjects need nominative case, and given the Case Filter, it follows straightforwardly that the subject position of the raising infinitive cannot be lexicalized. The structure can be ‘rescued’, though, by moving the subject NP into the matrix clause, where it finds finite Tense, thereby finding its needed nominative case.

This is simple and seemingly elegant, but it is no stronger than the assumptions it is based on. If syntax does not contain any +Case-feature or features, the ungrammaticality of (20b) could not be caused by failing +Case assignment or valuation in syntax. Rather, to rule it out, it is entirely sufficient to say that an overt NP cannot enter an agreement relation with the non-finite T:

(21) Subject-T<sub>+FIN</sub> agreement:

In a language like English, an overt subject NP (in finite and infinitival clauses) must enter a successful T-agreement relation, where T-agreement is successful only if T is finite, T<sub>+FIN</sub>.

Suppose also that nominative case determination in morphology is independent of Tense (regardless of finiteness), an issue I will return to. If so, the ungrammaticality of (20b), and the licensing of overt subjects in general, is unrelated to case.

For a language like English the morphological case vs. the T<sub>+FIN</sub> agreement approaches to the licensing of overt subject NPs in finite and infinitival clauses are indistinguishable, making the same empirical claims and predictions. Thus, the question arises whether that is true for other languages as well. The way to go from here, then, is to look at more data, much like Galileo did by studying the movements of Jupiter’s moons, and try to find out whether there are other languages that bear on the issue. If it turns out to be impossible to find any such language, then we have come to a dead end, where two theories account equally well (or equally poorly) for the observable data. That would be a rather unfortunate situation, indicating that generative syntax may not be about languages or the ‘real world’, thereby being non-testable against ‘hard evidence’. It does not necessarily follow that syntax theory would be uninteresting. It might still be an interesting ‘idea’ about the possible design of the internal, non-observable language faculty (Universal Grammar / I-language), much as ideas about God and eternal life may be interesting. However, the ‘idea’ would not count as a scientific theory on any meaningful understanding of that notion.

In the following, I will argue that it *is* possible to distinguish between the morphological case and the T<sub>+FIN</sub> agreement approaches to the licensing of overt subject NPs, in favor of the latter.

#### 4. Some evidence

Fortunately, we don't have to look far or for long to find 'Jupiter's moons'. Icelandic is structurally similar and closely related to English, and it has a wealth of overt case data that bear on the NP-licensing issue. Moreover, these data have been extensively investigated and reported by numerous generative syntacticians, including Andrews (1976), Thráinsson (1979), Zaenen et al. (1985), Yip et al. (1987), Sigurðsson (1989, 1991), and Jónsson (1996), to mention only a few milestones from the 20th century. Since Chomsky (2000), the research into the nature of these data has increased explosively (cf. the references in Sigurðsson 2008c and in Sigurðsson & Holmberg 2008).

Let us take a look at only some of the relevant facts (the evidence being much too voluminous to report in its entirety here). As illustrated in (22), the central properties of subject-to-subject raising are much the same in Icelandic as in English (see Thráinsson 1979, 2007; as seen in (22a), though, impersonal constructions do not necessarily contain an overt expletive in Icelandic, although they may do so, clause-initially):

- (22) a. Það/Þá hafði virst [sem **hann** þekkti hana].  
           it/then had seemed [that he.NOM knew.3SG her.ACC]  
           'It had/Then it had seemed that/as if he knew her.'
- b. \* Það/Þá hafði virst [**hann** þekkja hana].
- c. **Hann** hafði virst [ \_\_\_ þekkja hana].  
           he.NOM had seemed know.INF her.ACC  
           'He had seemed to know her.'

However, like many or perhaps all other languages with some 'inherent' cases (cf. Eythórsson & Barðdal 2005), Icelandic also has numerous non-nominative NPs with 'subject properties', so-called *quirky subjects* (such subjects being even more 'subjecty' in Icelandic than in most other languages, cf. Sigurðsson 1989, 2002). Most Icelandic quirky subjects are dative experiencers, benefactives or themes, and they are found in both active and passive clauses. I illustrate this with English glosses in (23):<sup>8</sup>

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<sup>8</sup> Most of the facts mentioned here have been exemplified so extensively in the widely accessible generative literature that it is pointless to reproduce them here. In the interest of space and readability, I often use only



- (23) a. **me**.DAT have.3PL never liked they.NOM  
 = ‘I have never liked them.’  
 b. **them**.DAT went.3SG forth  
 = ‘They made (some) progress.’  
 c. have.3PL **her**.DAT been given books.the.NOM?  
 = ‘Has she been given the books?’

The datives in examples of this sort are not topicalized but A-moved to the canonical subject position (Spec,IP / Spec,TP), as seen by numerous facts that have been thoroughly studied in the literature, for instance subject-verb inversion facts, as in (23c). Apart from their case-marking, nominatives like the ones in (23a,c) behave like regular objects, taking a post (main) verbal position and undergoing Object Shift (cf. Jónsson 1996:118, Thráinsson 2007:166).

As seen in (23c), non-nominatives undergo regular passive A-movement (Zaenen, et al. 1985, among many), and, as illustrated in (24), they also undergo subject-to-subject raising:

- (24) a. it seems.3SG [that **her**.DAT has.3SG been given book.the.NOM]  
 = ‘It seems that/as if she has been given the book.’  
 b. \* it seems.3SG [**her**.DAT have.INF been given book.the.NOM]  
 c. **her**.DAT seems.3SG [\_\_\_ have.INF been given book.the.NOM]  
 = ‘She seems to have been given the book.’

As seen by these (and many related) facts, ‘subject-NP-licensing’ does not correlate with nominative case. At first sight, it might seem to be a possible way out here to assume that quirky subjects are assigned invisible nominative case, ‘on top’ of their quirky case (Belletti 1988, Jónsson 1996, Chomsky 2000, 2001). Such an approach is not necessarily a priori implausible (on a syntactic approach to case-marking), but it meets serious analytical problems. For instance, it offers no coherent understanding of the case-marking of nominative objects, nor does it account for the fact that such objects trigger finite verb (number) agreement, as in (23c).

*Indefinite* subjects usually remain low in Icelandic A-movement constructions, regardless of their case (see Sigurðsson 2008a, 2008c and the references cited there). Some of the relevant facts are sketched below.

*Matrix passive:*

- (25) a. then has probably been stolen **cars**.DAT at auction.the DAT

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English glosses.

- = ‘Then, there have probably been cars stolen at the auction.’
- b. then have probably been sold **cars**.NOM at auction.the NOM
- = ‘Then, there have probably been cars sold at the auction.’

*Subject-to-subject raising constructions:*

- (26) a. then seemed [have.INF been stolen **cars**.DAT at auction.the] DAT
- b. then seemed [have.INF been sold **cars**.NOM at auction.the] NOM

*Exceptional Case Marking (ECM) constructions:*

- (27) a. we believed [have.INF been stolen **cars**.DAT at auction.the] DAT
- b. we believed [have.INF been sold **cars**.ACC at auction.the] ACC

English also tolerates deeply embedded subject NPs in constructions of this sort, the difference being that such NPs must be anticipated by an expletive and shifted in front of the main verb (*We believed there to have been **cars** sold at the auction*, etc.).

In contrast, *pronominal* and (most) other *definite* subject NPs have to raise, as illustrated below; the dashes indicate the base position of the raised subject:<sup>9</sup>

- (28) a. **them**.DAT has probably been stolen \_\_\_ at auction.the DAT
- b. **they**.NOM have probably been sold \_\_\_ at auction.the NOM
- (29) a. **them**.DAT seemed [have.INF been stolen \_\_\_ at auction.the] DAT
- b. **they**.NOM seemed [have.INF been sold \_\_\_ at auction.the] NOM
- (30) a. we believed [**them**.DAT have.INF been stolen \_\_\_ at auction.the] DAT
- b. we believed [**them**.ACC have.INF been sold \_\_\_ at auction.the] ACC

As seen by these facts, A-movement is unrelated to case but intimately related to definiteness and ‘pronominality’ (person).

In order to better understand these facts, we need to briefly consider the relation between syntax and morphological case-assignment. As discussed above, it seems that case-marking in terms of discrete (albeit abstract) features like +NOM and +DAT takes place after spell-out, in post-syntactic morphology (out of sight for the semantic component). If so, case-marking is

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<sup>9</sup> Corresponding examples with non-raised pronominal subjects are sharply ungrammatical: \* ... stolen them.DAT ..., etc.

likely to show cross-linguistic variation that does not directly follow from the properties of Universal Grammar (Narrow Syntax + transfer). That is, such variation seems to arise in the PF component (comprising abstract morphology), in the externalization process, when internal grammar is recast or interpreted in terms of highly diversified audible, visible or tangible codes, commonly referred to as ‘languages’ (including visible and tactile sign languages). This understanding seems to be essentially correct. Nevertheless, there are certain recurring patterns in the diversified externalization codes. Thus, as mentioned above, most or all case systems have one unmarked case, commonly referred to as ‘nominative’ by linguists, and as also mentioned, NOM typically serves multiple purposes, often being used for predicative NPs, vocative NPs, exclamative NPs, dislocated NPs, listed NPs, and so on.

A closer look at case systems with both so-called ‘inherent’ cases (DAT, INST, ...) and ‘structural’ cases (NOM, ACC in accusative systems), suggests that the structural cases are elsewhere cases (assigned in the absence of inherent case-marking), where ACC is commonly (but not exclusively) assigned only if NOM is also ‘going to be’ present in the clause (the Sibling Correlation between NOM and ACC, see Sigurðsson 2008c and the references cited there, in particular Yip et al. 1987). In other words, it seems that accusative is the marked elsewhere case, whereas nominative is the unmarked elsewhere case: ‘doubly unmarked’, as it were.

These observations can be implemented if nominative is *not assigned* by a head or heads, instead showing up by default in the absence of any true case (in finite as well as non-finite contexts). Following Chomsky (2001), let us refer to the element that underlies morphological accusative interpretation or assignment as  $v^*$ . In the same vein, we may refer to the elements that underlie inherent case interpretation (assignment) in PF morphology as  $v^{**}$ ,  $v^{***}$ , etc.<sup>10</sup> If so, the central properties of the morphological case system of core arguments (subjects and direct objects) in languages like German and Icelandic can be simply described as follows (the English morphological case system lacks rule (31a), but it may be analyzed as containing rules that ‘assign’ DAT prepositions like *of* and *to*):

- (31) a.  $v^{**}$ -V NP >  $v^{**}$ -V NP<sub>DAT</sub>  
       b.  $v^*$ -V NP >  $v^*$ -V NP<sub>ACC</sub>

An NP that is not assigned any case by morphological rules like the ones in (31) winds up as being ‘caseless’, hence showing up in the unmarked form: ‘nominative’. Accordingly, not only regular subjects but also dislocated NPs, listed NPs, etc., even certain object NPs, may show up

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<sup>10</sup> These designations are abstractions and simplifications but further details are not relevant in the present context. In particular, I do not discuss the differences between different inherent cases or different instances of ‘one and the same’ case (DAT direct objects, DAT indirect objects, DAT P-complements, and so on). As will be discussed in section 5, the case stars are only operative in combination with V and Voice, that is, they are not ‘cs-particles’ in the sense discussed in section 3.

in the nominative.<sup>11</sup> As mentioned above, verb-agreement is simply accommodated if the finite verb agrees whenever it can successfully PF-probe an NP with unmarked or ‘no’ case.

If this is on the right track we come to a conclusion that is largely orthogonal to the Case Filter approach, an ‘Anti Case Filter approach’, as it were: Nominative ‘comes free’, thus not needing any particular licensing (nor having any licensing power). Again, Icelandic offers striking evidence bearing on the issues at stake. The evidence is found in raising constructions, as I will now illustrate.

Most regular Icelandic raising verbs come in two guises, with or without a matrix dative experiencer. This gives rise to variation of the following sort (the dashes indicate empty subject positions, either vacated or ‘not filled’ by A-movement):

- (32) a. Hafði **hún** virst [\_\_\_ vera hæf]?  
 had she.NOM seemed be.INF competent  
 ‘Had she seemed to be competent.’
- b. Hafði þér virst [**hún** vera hæf]?  
 had you.DAT seemed she.NOM be.INF competent  
 ‘Had it seemed to you that she was competent.’
- c. \*Hafði \_\_\_ virst [**hún** vera hæf]?  
 had seemed she.NOM be.INF competent
- d. Hafði \_\_\_ virst [sem **hún** væri hæf]?  
 had seemed that she.NOM was competent  
 ‘Had it seemed that/as if she was competent?’

With English glosses only, for simplicity and clarity:

- (33) a. had **she**.NOM seemed [\_\_\_ be.INF competent]?  
 b. had **you**.DAT seemed [**she**.NOM be.INF competent]?  
 c. \* had \_\_\_ seemed [**she**.NOM be.INF competent]?  
 d. had \_\_\_ seemed [that **she**.NOM was competent]?

For convenience, I will refer to the construction in (32b)/(33b) as the *ECM<sub>NOM</sub> construction*. It is a slightly misleading label, as the infinitival subject may carry quirky case (DAT, ACC, GEN), depending on the infinitival predicate, but I have not been able to come up with any more pertinent term.

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<sup>11</sup> Assuming that NOM is assigned vP-internally, as in e.g. Sigurðsson 2000 and Schäfer 2008, makes the same predictions as the present approach for subjects and nominative objects, as far as I can judge, but it does not extend to nominatives in general, of course.

As seen, there is nothing wrong with an overt NP in the infinitival subject position as long as the matrix clause contains a core argument, here a dative experiencer ('holding' the infinitival subject 'down', as it were). Evidently, the two guises of raising verbs like *virðast* 'seem' are in a sense 'active' vs. 'passive'. Thus, the same pattern as in (33) is found in both English and Icelandic active vs. passive *believe*-type ECM constructions, as illustrated in (34) (Icelandic does not have any infinitive markers in raising infinitives; *hún, þú* = NOM, *hana* = ACC):

- |      |  |  |
|------|--|--|
| (34) | <i>English:</i>  | <i>Icelandic:</i>                                |
| a.   | Was <b>she</b> believed [___ to be competent]?         | Var <b>hún</b> talin [___ vera hæf]?             |
| b.   | Had <b>you</b> believed [ <b>her</b> to be competent]? | Hafðir <b>þú</b> talið [ <b>hana</b> vera hæfa]? |
| c.   | * Was it believed [ <b>she</b> to be competent]?       | * Var ___ talin [ <b>hún</b> vera hæf]?          |
| d.   | * Was it believed [ <b>her</b> to be competent]?       | * Var ___ talið [ <b>hana</b> vera hæfa]?        |
| e.   | Was it believed [that <b>she</b> was competent]?       | Var ___ talið [að <b>hún</b> væri hæf]?          |

The case of the infinitival subject in ECM<sub>NOM</sub> examples like (33b) and ECM<sub>ACC</sub> examples like (34b) is unrelated to its positional licensing, understandably so if case is decided in post-syntactic morphology. This is further supported by facts like those sketched in (26)-(27) above, where indefinite infinitival subjects stay low, regardless of their case-marking.

The presence of the matrix subject in examples like (33b) and (34b) licenses the infinitival subject, and it seems to do so by entering a matching relation **R** with some feature or features **F\*** in the matrix clause, thereby exempting the infinitival subject from entering that relation (a Minimal Link Condition effect). In the absence of a matrix subject, on the other hand, the infinitival (definite) subject has to raise, regardless of its case, thereby 'standing in' for the matrix subject as a matcher of **F\*** (Sigurðsson 2008a).

I will take a closer look at the nature of **R** and **F\*** in the next section, demonstrating that both are unrelated to case. One of the questions that arise is why English does not have ECM<sub>NOM</sub> constructions: *\*To me (it) seemed **she** to be intelligent* or *\*Me (it) seemed **she** to be intelligent*. A part of the answer is that English does not have quirky subjects, but another and a more general part is that only NPs that enter a Person matching relation with the matrix T<sub>+FIN</sub> complex can exempt the infinitival subject from doing so. Icelandic quirky subjects do enter such a relation with the T<sub>+FIN</sub> complex, thereby 'holding' the infinitival subject 'down', regardless of the case of the latter. In the same fashion, matrix subjects of both Icelandic and English ECM<sub>ACC</sub> constructions, 'hold' the infinitival subject 'down' in examples like (34b) (regardless of whether it is ACC or a quirky DAT or GEN, cf. e.g. Sigurðsson 1989).

## 5. Analysis

Relation R is roughly what I have been referring to as  $T_{+FIN}$  agreement, and it has been argued that  $F^*$ , the relevant features of  $T_{+FIN}$ , are the logophoric features in the C-domain (see shortly), Fin(iteness) and Person, Person and Number being independent clausal heads, **Pn** and **Nr**. This proposal gains support from so-called *quirky agreement* (extensively discussed in the literature, see Boeckx 2000, Sigurðsson & Holmberg 2008 and the references cited there). That is, Icelandic quirky subjects (see also Rezac 2008 on Basque) do not generally interfere with finite number agreement with nominative objects, whereas they block ‘true’ (first and second) person agreement. This gives rise to patterns like the following:<sup>12</sup>

- |              |  |  |     |         |     |              |             |   |  |          |   |
|--------------|--|--|-----|---------|-----|--------------|-------------|---|--|----------|---|
| (35)         | <b>him</b> .DAT <u>would.3PL</u> not like they.NOM   | DAT            Pn / Nr            NOM<br>↑__covert__↑    ↑__overt__↑   |     |         |     |              |             |   |  |          |   |
| (36)         | a. * <b>him</b> .DAT <u>would.1PL</u> not like we.NOM<br>b. * <b>him</b> .DAT <u>would.2PL</u> not like you.NOM.PL | <table border="0" style="margin: auto;"> <tr> <td style="text-align: center;">DAT</td> <td style="text-align: center;">Pn / Nr</td> <td style="text-align: center;">NOM</td> </tr> <tr> <td style="text-align: center;">↑__covert__↑</td> <td style="text-align: center;">↑__overt__↑</td> <td style="text-align: center;">↑</td> </tr> <tr> <td></td> <td style="text-align: center;">*↑_____↑</td> <td style="text-align: center;">↑</td> </tr> </table> | DAT | Pn / Nr | NOM | ↑__covert__↑ | ↑__overt__↑ | ↑ |  | *↑_____↑ | ↑ |
| DAT          | Pn / Nr  | NOM  |     |         |     |              |             |   |  |          |   |
| ↑__covert__↑ | ↑__overt__↑  | ↑  |     |         |     |              |             |   |  |          |   |
|              | *↑_____↑   | ↑  |     |         |     |              |             |   |  |          |   |

As indicated in (36), the Pn head is already ‘taken’ by covert agreement with the quirky subject, hence not able to overtly agree with the nominative object as well, whereas Nr is free to agree with the object (as seen in (35)). – Thus, quirky agreement offers evidence that Pn and Nr are distinct probes/clausal heads.

Adopting the analysis argued for in Sigurðsson (2008c, 2008d) and in Sigurðsson & Holmberg (2008), I assume a cartographic approach to clause structure, roughly as sketched in (37), where  $\Lambda_A$  and  $\Lambda_P$  denote the logophoric agent (‘speaker’) and the logophoric patient (‘hearer’) features or operators, inherent in any speech event (see also e.g. Baker 2008; I abstract away from categories that are unimportant for my present purposes, including Nr, Foc(us) and Top(ic) features):<sup>13</sup>

- (37) [<sub>CP</sub> Force ...  $\Lambda_A$  ...  $\Lambda_P$  ... Fin [<sub>IP</sub> ... PnS ... T ... Voice ... PnO ... [<sub>VP</sub> ... v-V ...

As indicated, I distinguish between subject and object Pn (cf. AgrS and AgrO in earlier

<sup>12</sup> The diagrams are just superficial illustrations; as discussed in Sigurðsson & Holmberg 2008, the Pn-agreement relation is arguably established prior to A-movement. For a discussion of varieties of Icelandic where DAT can in certain cases interfere with number agreement, see Sigurðsson & Holmberg 2008 and Holmberg & Hróarsdóttir 2004.

<sup>13</sup> I hypothesize that passive Voice (Voice<sub>PASS</sub>) licenses or can license passive morphology (V<sub>PASS</sub>) under Agree.

approaches).<sup>14</sup> Subjects and objects match PnS and PnO, respectively, as either +Pn or –Pn. Any NP<sub>+Pn</sub>, in turn, has to positively or negatively match the  $\Lambda$  and Fin features in the C-domain, thereby sanctioning a specific person in morphology (as ‘speaker person’, ‘hearer person’ or neither).<sup>15</sup>

In Sigurðsson (2008d) it is argued that PnS probing into vP triggers A-movement into the vicinity of PnS (usually referred to as ‘Spec,IP’) in case the PnS probing leads to the subject being valued as +Pn (and not as –Pn), hence in need for exact person ( $\Lambda$ -) specification. If so, the licensing of +Pn subjects involves matching of/movement to PnS as well as subsequent  $\Lambda$ -Fin matching (under mere Agree, i.e., without concomitant A-movement from PnS into the C-domain).

Alternatively, one may think of the relevant categories F\*, matched by ‘personal’ and (most) other definite subjects in finite clauses, as being T<sub>+FIN</sub>, on the understanding that T<sub>+FIN</sub> is a convenient cover term for a number of features in the high T-domain and the low C-domain, including  $\Lambda$ , Fin and PnS. This is close in spirit to the approach pursued by Richards (2007) and Chomsky (2008a), where the features of the T-system are ‘inherited’ from the C-system, the major difference being that the T-system features are *valued* in relation to the features of the C-system in the present approach (adopted from Sigurðsson 2004, 2008d). Lumping the relevant features together as T<sub>+FIN</sub>, is a simplification, but it is sufficiently accurate for most of my present purposes. For expository reasons, I will thus keep on referring to the relevant subject licensing relation as T<sub>+FIN</sub> agreement.

The infinitival ECM<sub>NOM</sub> and ECM<sub>ACC</sub> subjects in (33b) and (34b) are exempted from (direct) T<sub>+FIN</sub> agreement by being locally c-commanded by another argument NP that enters T<sub>+FIN</sub> agreement. That is, these NPs behave much like regular objects in relation to their subjects:

- (38) a. They would probably have widened **them** (e.g. the caves).  
 b. **They** (e.g. the caves) would probably have widened \_\_\_\_.  
 c. \* There/It would probably have widened **they/them**.

The same pattern is seen in Icelandic, regardless of case:

- (39) a. Þeir mundu líklega hafa víkkað **þá**.

<sup>14</sup> There is a lot of confusion around this issue in the literature. While uninterpretable Agr categories were plausibly eliminated from syntax (in Chomsky 1995 and related work), *interpretable* Pn and Nr are syntactically active categories.

<sup>15</sup> Arguably, Fin splits into a locational and a temporal feature, the former being matched by speech local (‘personal’/‘definite’) arguments and/or adverbials, whereas the temporal factor is matched by Tense (Sigurðsson 2004, 2008d), but I abstract away from this here.

- they.NOM would probably have widened them.ACC
- b. **Þeir** mundu líklega hafa víkkað \_\_\_\_.  
they.NOM would probably have widened
- c. \* **Þá/Það** mundu/mundi líklega hafa víkkað **þeir/þá**.  
then/there would.3PL/3SG probably have widened they.NOM/ACC

Thus, being embedded under  $\nu$  (in the sense of Chomsky 2001) does not alone license direct objects (i.e., prevent internal arguments from raising to subject). Objects must *in addition* be in the local scope of a subject NP, much as definite ECM<sub>NOM</sub> and ECM<sub>ACC</sub> subjects have to be in the local scope of a matrix subject.<sup>16</sup>

Generalizing, I hypothesize that core arguments (subjects and direct objects) are licensed under either *direct* T<sub>+FIN</sub> agreement or *transitive* T<sub>+FIN</sub> agreement, where an NP enters transitive T<sub>+FIN</sub> agreement by being locally c-commanded by a directly T<sub>+FIN</sub> agreeing NP. In a simpler terminology, we can say that core arguments are either subjects themselves or locally ‘subject-commanded’ (cf. Sigurðsson 1989:227ff). An NP is amenable to high A-movement (i.e., raising to PnS or ‘Spec,IP’) only if it is not subject-commanded, as seen by the facts in (32)-(34) above.

Indefinite NPs are commonly exempted from raising to PnS, regardless of whether T<sub>+FIN</sub> agreement is direct or transitive. This is for instance seen in Icelandic structures like the ones in (26) and (27) above. The structures in (26b) and (27b) are exemplified in (41a) and (41b), respectively:

- (41) a. **Þá** virtust [hafa verið seldir **bílar** á uppboðinu].  
then seemed have.INF been sold cars.NOM at auction.the]  
‘It then seemed that there had been cars sold at the auction.’
- b. Við töldum [hafa verið selda **bíla** á uppboðinu].  
we believed.1PL have.INF been sold cars.ACC at auction.the]  
‘We believed there to have been cars sold at the auction.’

For a more detailed discussion of facts of this sort, see Sigurðsson (2008d), where it is argued that indefinite subjects are typically valued as –Pn, hence exempted from movement to PnS (infinitive-internal PnS here, c-commanded or controlled by the matrix PnO, which in turn is controlled by the matrix PnS, cf. (42) below).

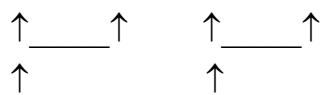
<sup>16</sup> ECM subjects were referred to as *subjects* in Sigurðsson 1996, pertinently so. However, ECM subjects and regular objects are also different in a number of (well-known) respects not discussed here. Indefinite subjects in unaccusative constructions either may or have to remain low (type ‘then had disappeared four books’), much as indefinite ECM and passive subjects.



Notice that the finite matrix verb in (41a) agrees with the embedded nominative (in number) in accordance with the general pattern that subject-verb agreement is triggered in morphology whenever the finite verb successfully PF-probes an NP with unmarked ‘case’.

I assume that transitive  $T_{+FIN}$  agreement (‘subject-command’) involves a control relation between  $T$  and  $v$ , in addition to the Agree relations between  $T$  and  $v$  and core arguments (cf. the theory of control in Landau 2008 and related work). This is sketched in (42) for a regular transitive construction and in (43) for the Icelandic  $ECM_{NOM}$  construction:

(42) ...  $T_{+FIN}$  ... she ...  $v^*$  see him



(43) ...  $T_{+FIN}$  ... her.DAT ...  $v$  seem [he.NOM be ...]



$T$  and  $v$  are here used in the cover term sense of Chomsky (2000, 2001, etc.).  $T_{+FIN}$  is thus a short for a number of categories, including Fin,  $T$  itself and PnS, and  $v$  also subsumes or covers a number of categories, including  $v$  (aspect) itself and PnO. The ‘active’ NP licensing categories of the  $T$ - and the  $v$ -complexes are Fin/PnS and PnO, respectively, where PnO is transitively activated as a licenser by PnS (as sketched in (43) in terms of  $T$  and  $v$ ). Voice and  $v$ /aspect matching of the same NPs underlie morphological case-marking, an issue I will discuss shortly.

As mentioned at the end of section 4, a question that arises (under any approach) is why English does not allow  $ECM_{NOM}$  examples like *\*To me (it) seemed she to be intelligent* or *\*Me (it) seemed she to be intelligent* (cf. Boeckx 2000). The answer is related to the fact that English does not have inherently case-marked core arguments. However, languages like German and Russian do not seem to have any parallel constructions either. Thus, scrambling in German renders examples like *Mir scheint sie intelligent zu sein* (lit. ‘me seems she intelligent to be’) structurally ambiguous, i.e., the nominative argument *sie* ‘she’ might have scrambled into the matrix clause, as suggested by the fact that German commonly has the reverse order, NOM-DAT, as in *Sie scheint mir intelligent zu sein*. The Romance languages have inherently case-marked pronouns, but they raise their infinitival NOM subjects into the matrix in examples like Italian *Questi studenti me sembrano essere intelligenti* (lit. ‘these students me seem.3PL be intelligent’). In Icelandic, in contrast, raising the infinitival subject across the dative experiencer leads to ungrammaticality (type *\*‘she had seemed me be intelligent’*, see Sigurðsson & Holmberg 2008 and the references there). Thus, the evidence

suggests that the availability of ‘DAT seems / had seemed NOM (to) verb.INF ...’ – and the unavailability of ‘\*NOM seems / had seemed DAT (to) verb.INF ...’ and ‘\*NOM had DAT seemed (to) verb.INF ...’ – is intimately related to quirky agreement, found in Icelandic as opposed to e.g. German, Russian and Italian (and most other Romance varieties). In other words, DAT both can and must ‘hold’ NOM ‘down’ only if it DAT matches PnS (cf. (35) and (36) above), exempting NOM from doing so.

On this approach, English *\*It seems she to be intelligent* is ill-formed because an expletive (as opposed to Icelandic DAT) is not a legitimate matcher of PnS in the presence of the ‘stronger’ PnS matcher *she*, hence incapable of preventing *she* from raising, which in turn renders the expletive illegitimate (see Sigurðsson 2008a, 2008d, cf. also Richards 2004).

Another question that arises is why overt NPs cannot be licensed under transitive  $T_{+FIN}$  agreement in the subject position of PRO infinitives:

- (44) a. \*John had hoped [**he/him** to pass the exam].  
 b. \*John promised Mary [**he/him** to help her].  
 c. \* John forced Mary [**she/her** to help him].

Adopting mainstream generative approaches (Chomsky 1981, 1995, 2008a and related work), I assume that control (CP) infinitives differ from raising infinitives in having their own layer of (silent) C-features, the C-features being matched by categories inside the infinitive, including the (defective) infinitival PnS feature. If so, the infinitive does not contain any active PnS goal for the matrix T- and  $v$ -complexes to probe for, as it has already been matched CP-internally (much like PnS in finite clauses).<sup>17</sup> Defective PnS, in turn, differs from specified PnS in being unable to locally license a lexically  $\phi$ -specified NP (Sigurðsson 2008a). Accordingly, lexicalization of the subject in PRO-infinitives is neither CP-internally nor CP-externally licensed.

Without going into further analytical details here, I contend that the silence problem raised by PRO (i.e., the fact that it cannot be spelled out as a pronoun) is unrelated to case. Icelandic offers pervasive evidence that PRO is interpreted as carrying case in morphology (as has been widely demonstrated and discussed in the literature, cf. Sigurðsson 2008a and the references cited there). Thus, to mention one of numerous facts illustrating this, floating quantifiers regularly agree with their local subject in number, gender and case, regardless of whether the subject is an overt NP or PRO. This is sketched below. The dative plural forms of ‘the brothers’ and ‘both’ are *bræðrunum* and *báðum*, whereas the nominative plural masculine forms are *bræðurnir* and *báðir* (for the Icelandic examples, see Sigurðsson 2008a):

<sup>17</sup> PnO in PRO infinitives is transitively activated as a licenser by defective PnS, thereby licensing object NPs.

(45) a. brothers.the.DAT was **both**.DAT invited DAT *báðum*  
= ‘The brothers were both invited.’  
b. brothers.the.NOM wished [to be **both**.DAT invited] DAT *báðum*  
= ‘The brothers wished to be both invited.’

(46) a. brothers.the.NOM were **both**.NOM elected NOM *báðir*  
= ‘The brothers were both elected.’  
b. brothers.the.DAT liked ill [to be not **both**.NOM elected] NOM *báðir*  
= ‘The brothers disliked not to be both elected.’

Some speakers allow optional transmission of ACC (common) and DAT (less common) into infinitives, across (basically nominative) PRO, targetting predicates and indefinite pronouns or ‘semi-predicates’, but usually not targetting floating quantifiers (see Thráinsson 1979, 2007 and Sigurðsson 2008a; see also Landau 2008 on similar phenomena in Russian and some other languages). Case transmission gives rise to variation of the sort illustrated in (47) (the infinitive marker *að* is arguably in the C-domain):

- (47) a. Við báðum **Ólaf** [að PRO vera góður/**góðan**].  
 we asked Olaf.A to be nice.N/A  
 b. Við sögðum **Ólafi** [að PRO vera góður/**góðum**].  
 we told Olaf.D to be nice.N/D

(48) a. Við báðum **Ólaf** [að (\***hann**) vera **góðan**].  
 we asked Olaf.A to him.A be nice.A  
 b. Við sögðum **Ólafi** [að (\***honum**) vera **góðum**].

we told Olaf.D to him.D be nice.D

It is evident from these and other facts that PRO is interpreted as carrying case in (abstract) morphology, and that it is nevertheless blocked from being spelled out. Conversely, PRO cannot be dislocated, even in languages like Icelandic that case-mark dislocated NPs (either under case-agreement or as nominative, cf. Thráinsson 1979):

- (49) a. **Ólafur**, hann er sterkur.  
 Olaf.N he.N is strong  
 b. Að vera sterkur er gagnlegt.  
 to be strong is useful  
 c. \*Maður/\*Ólafur, að vera sterkur er gagnlegt.  
 one.N/Olaf.N to be strong is useful  
 Intended: ‘For one/For Olaf to be strong is useful.’
- (50) a. **Ólafur/Ólafi**, honum leiðist.  
 Olaf.N/D, him.D bores  
 ‘Olaf, he is bored.’  
 b. Að leiðast er ekki gott.  
 to bore is not nice  
 ‘To be bored is not nice.’  
 c. \*Maður/\*Ólafur, að leiðast er ekki gott.  
 one.N/Olaf.N to bore is not nice  
 Intended: ‘For one/For Olaf to be bored is not nice.’  
 d. \*Manni/\*Ólafi, að leiðast er ekki gott.  
 one.D/Olaf.D to bore is not nice  
 Intended: ‘For one/For Olaf to be bored is not nice.’

Case is evidently not involved in overt NP-licensing.

Lasnik (2008, cf. Chomsky & Lasnik 1993) assumes that PRO carries ‘null Case’. What that essentially means, in our terms, is that PRO enters  $T_{-FIN}$  agreement, where  $T_{-FIN}$  is Person defective, whereas overt subject NPs in finite clauses enter  $T_{+FIN}$  agreement, where  $T_{+FIN}$  is fully Person specified.<sup>18</sup> Both relations are licensing relations, first one licensing PRO whereas the second one licenses an overt subject NP. However, neither relation has any connection to morphological case, subjects being able to carry quirky and ergative case and NOM being ‘no case’, or, if one likes, ‘null case’.

<sup>18</sup> See Sigurðsson (2008a) for evidence that PRO can only carry ‘true’ (first and second) person under control.

I will conclude this section by briefly sketching the syntax that underlies morphological case-marking of core arguments in Icelandic, illustrating that it is distinct from NP-licensing syntax. Similar (but not identical) mechanisms are at work in other case languages, but for reasons of space, I largely limit the following brief outline to Icelandic.

Icelandic PF case morphology interprets NP matching relations with  $v^*$  and  $v^{**}$  as ACC and as DAT, but these ‘case triggers’ can be deactivated by Voice heads, as argued by Svenonius (2006) and further discussed in Sigurðsson (2008c, 2008e), thereby being redefined or reinterpreted as plain  $v$ , yielding NOM in morphology.<sup>19</sup> Thus, dynamic passive Voice, Voice<sub>PASS</sub>, triggers elimination of ACC ( $v^* > v$ ) as opposed to DAT. This is illustrated in (51) (Voice<sub>ACT</sub> = active Voice):

- (51) a. Við þvoðum **veggina/börnunum**. Voice<sub>ACT</sub>: NOM-ACC<sub>i</sub>/DAT<sub>j</sub>  
 we washed.1PL walls.the.A/children.the.D  
 b. **Veggirnir** voru þvegnir. Voice<sub>PASS</sub>: NOM<sub>i</sub>  
 walls.the.N were.3PL washed.N.M.PL  
 ‘The walls were washed.’  
 c. **Börnunum** var þvegið. Voice<sub>PASS</sub>: DAT<sub>j</sub>  
 children.the.D was.3SG washed  
 ‘The children were washed.’

I assume that Voice<sub>ACT/PASS</sub> licenses an agentive external  $\theta$ -role in Spec,vP under Agree (inspired by the approach developed by Kratzer 1996, Pylkkänen 2008 and others). Anticausatives (-*st* ‘middles’), unaccusatives and stative passives, in turn, have a vacuous external  $\theta$ -role and may thus be analyzed as being embedded under expletive Voice, Voice<sub>EXPL</sub> (cf. Alexiadou et al. 2006, Schäfer 2007, Sigurðsson 2008c, 2008e).<sup>20</sup> Voice<sub>EXPL</sub> differs from Voice<sub>PASS</sub> in triggering theme DAT elimination ( $v^{**} > v$ ) as well as ACC elimination. The theme DAT elimination is illustrated in (52c,d):

- (52) a. Við lokuðum **gluggunum**. Voice<sub>ACT</sub>: NOM-DAT<sub>i</sub>  
 we closed.1PL windows.the.DAT  
 b. **Gluggunum** var lokað þjösnalega. Voice<sub>PASS</sub>: DAT<sub>i</sub>  
 windows.the.DAT was.3SG closed brutally  
 c. **Gluggarnir** lokuðust. Voice<sub>EXPL</sub>: NOM<sub>i</sub>  
 windows.the.NOM closed-ST.3PL

<sup>19</sup> It thus seems that defective  $v$  is ‘radically defective’ in the sense that it is not a lexical category, instead being syntactically derived from  $v^*$ ,  $v^{**}$ , etc.

<sup>20</sup> These predicate types have different vP-internal properties, not discussed here.

‘The windows closed.’

- d. **Gluggarnir** voru lengi lokaðir Voice<sub>EXPL</sub>: NOM<sub>i</sub>  
 windows.the.NOM were.3PL long closed.N.M.PL  
 ‘The windows were closed for a long time.’

The relevant case deletion processes are sketched in (53):

- (53) a. Voice<sub>EXPL</sub> ...  $v^{(*)}$  ... > Voice<sub>EXPL</sub> ...  $v$  ...  
 b. Voice<sub>PASS</sub> ...  $v^*$  ... > Voice<sub>PASS</sub> ...  $v$  ...

Icelandic ‘case preservation’ constructions include the following:

- (54) a. Voice<sub>ACT</sub> ...  $v^{(*)}$  ...  
 b. Voice<sub>PASS</sub> ...  $v^{**}$  ...

Accordingly, not all raising constructions involve defective  $v$ , A-movement thus not being confined to defective  $v$ -predicates. Rather, as we have seen, an NP is amenable to regular A-movement, thereby ‘standing in’ as a matcher of the  $T_{+/-FIN}$  complex, only if it is not locally c-commanded by another core argument (matching  $T_{+/-FIN}$ ). If that is correct, as it seems to be, then A-movement cannot be analyzed directly in terms of the properties of  $v$  (as it was in Chomsky 2000, 2001).

There are more case deletion processes and case preservation constructions, involving different Voice type heads and lexical idiosyncrasies (see Sigurðsson 2008c, 2008e), but I will not go into further details of Icelandic case-marking here. The central generalizations for (non-GEN) core arguments are simple:<sup>21</sup>

(55) The case-marking of Icelandic (non-GEN) core arguments:

- a. An NP that is a complement of  $v^*$ -V is interpreted or marked as ACC in morphology
- b. An NP that is a complement of  $v^{**}$ -V shows up as DAT
- c. Other (non-GEN) core argument NPs are not assigned any specified case

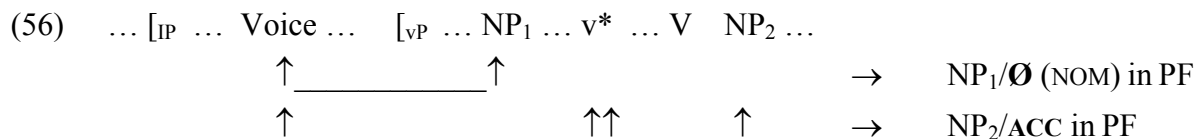
Agreement morphology, in turn, interprets the ‘no case’ as an active (abstract) *agreement* feature, +NOM, triggering (PF) agreement of the finite verb, participles, etc.<sup>22</sup>

<sup>21</sup> Recall that  $v^*$  and  $v^{**}$  are abstractions and simplifications. The literature on the many  $\theta$ -properties involved is voluminous (see Sigurðsson 2008c and the references cited there).

<sup>22</sup> In most languages, morphology does not ‘bother’ to overtly mark Ns that carry ‘no case’. Icelandic is exceptional in this regard, overtly marking some of its nominatives, but this (agreement) marking is distinct from the ‘no-case’-decision.

These generalizations apply to only subjects and direct objects. Icelandic has many accusatives and datives (indirect objects, P-objects, adverbial NPs, etc.) that are not complements of  $v^*$ -V or  $v^{**}$ -V. Thus, it is impossible to simply identify the cases with individual syntactic heads, that is, as we have seen, syntax does not contain anything like a ‘dative feature’. Morphology does, interpreting various types of N-relations as DAT, including the matching relation between an NP and certain Voice- $v$ -V complexes.

In fact, the case-marking of core arguments does not only highlight their relation to the verbal projection but also to other arguments, their case thus not being an exclusively ‘private matter’. In other words, one of the central functions of case is to make an overt distinction between distinct NP arguments of one and the same predicate or clause. This fundamental property of case is captured if both subjects and objects match Voice, subjects directly and objects indirectly, via  $v$ /aspect (Sigurðsson 2008c). This is sketched for regular NOM-ACC transitive constructions in (56):



This ‘transitivity’ of case-marking is strikingly similar to the transitivity of NP-licensing as analyzed above, and hence it is not surprising that there is a strong tendency or ‘urge’ in linguistics to conflate these phenomena. Importantly, they are not identical and must be carefully kept apart, but it seems likely that their parallel ‘anatomy’ boils down to (non-language-specific) principles of design and efficient computation (the third factor in Chomsky 2005).

In the constructions considered above, Voice is only indirectly ‘case active’, via  $v$ . Thus, in the anticausative in (52c) and the stative passive in (52d), Voice<sub>EXPL</sub> alters the case triggering properties of  $v$  (in contrast to Voice<sub>PASS</sub> in the quirky passive in (52b)). However, there are also structures where Voice is directly case active. Thus, agentive active Voice, Voice<sub>ACT/+AG</sub>, is responsible for ergative case-marking of agentive subjects in ergative systems, in addition to being indirectly case active, by triggering accusative deletion,  $v^* > v$ , yielding ABS(olutive) = NOM on the direct object. Similarly, at least certain DAT-NOM constructions in Icelandic have Voice heads that are directly case active, yielding DAT on the subject, in addition to triggering ACC deletion,  $v^* > v$  (yielding NOM on the direct object). Corresponding DAT-ACC structures in Faroese (cf. Eythórsson & Jónsson 2003, Woolford 2003) seem to differ only in not applying ACC deletion. In addition, much like case triggering  $v$  can be deactivated by Voice, case triggering Voice is deactivated by either PnS or T in split ergative systems (cf. Dixon 1994). However, going into further variation and details would take us too

far afield, so I'll stop here (but see Sigurðsson 2008d and the references cited there for some further discussion of Icelandic).

In sum, overt core arguments in accusative systems are licensed under either direct  $T_{+FIN}$  agreement or  $v$ -agreement (transitive  $T_{+FIN}$  agreement), the PnO feature of the  $v$ -complex being transitively activated as a licenser by the PnS feature of the T-complex. The case-marking of core arguments, in turn, is a morphological interpretation of Voice and  $v$ /aspect matching relations (argument structure). Hence, there are no general restrictions on (abstract) morphological case interpretation of PRO, infinitives having the same argument structure as corresponding finite clauses.

The evidence showing that overt NP-licensing must be divorced from case-marking is pervasive and nuanced, including A-movement facts in Icelandic  $ECM_{NOM}$  constructions and in both English and Icelandic  $ECM_{ACC}$  constructions illustrated in (33) and (34) above, repeated here as (57) and (58):

- (57) a. had **she**.NOM seemed [\_\_ be.INF competent]?  
 b. had **you**.DAT seemed [**she**.NOM be.INF competent]?  
 c. \* had \_\_ seemed [**she**.NOM be.INF competent]?  
 d. had \_\_ seemed [that **she**.NOM was competent]?

- |      |  |  |
|------|--|--|
| (58) | <i>English:</i>  | <i>Icelandic:</i>                                |
| a.   | Was <b>she</b> believed [__ to be competent]?          | Var <b>hún</b> talin [__ vera hæf]?              |
| b.   | Had <b>you</b> believed [ <b>her</b> to be competent]? | Hafðir <b>pú</b> talið [ <b>hana</b> vera hæfa]? |
| c.   | * Was it believed [ <b>she</b> to be competent]?       | * Var __ talin [ <b>hún</b> vera hæf]?           |
| d.   | * Was it believed [ <b>her</b> to be competent]?       | * Var __ talið [ <b>hana</b> vera hæfa]?         |
| e.   | Was it believed [that <b>she</b> was competent]?       | Var __ talið [að <b>hún</b> væri hæf]?           |

In both (57b) and (58b), the matrix subject enters direct  $T_{+FIN}$  agreement (Fin/PnS agreement), thereby exempting the infinitival subject from doing so, much as an object is exempted from direct  $T_{+FIN}$  agreement in transitive constructions, regardless of its case.

## 6. Externalization Theory: more challenges than triumphs

Recall that in his state of the art article, “On the development of Case Theory: triumphs and challenges”, Lasnik (2008:18) says:



“Vergnaud’s now very familiar basic idea was that even languages like English with very little case morphology pattern with richly inflected languages in providing characteristic positions in which NPs with particular cases occur.”

The Icelandic facts described above are a widely discussed and extremely well documented challenge to this hypothesis – probably the most serious known challenge to it. However, Lasnik does not mention any of these facts in his paper. In fact, there is no further mention of “richly inflected languages” in Lasnik’s paper, nor does it contain any discussion or even examples of morphological case.

Much of the mainstream generative discussion of ‘Case’ is not about case but about the licensing and distribution of overt subjects and objects. Crucially, standard generative conceptions of ‘Case’ offer no account of the correlation between syntactic structures and overt case-marking, not even within only the Germanic languages. This is not surprising. Linguistics has extremely limited understanding of how Narrow Syntax or universal internal language is externalized and of why it is externalized in so many disparate ways (as perhaps best evidenced by sign languages, both visible and tactile, and writing systems, including successfully deciphered albeit previously unknown writing systems of extinct languages).

The triumphs of C/case theory may not be all that many or impressive, but the challenges are numerous. A plausible Externalization Theory is not likely to emerge without some general understanding of morphological variation. However, a sober consideration of the prospects in this important field does not leave much room for optimism about quick progress and easy triumphs. Linguistic mapping processes seem to be fundamentally *non-isomorphic* (perhaps a property of biological transformation processes in general). Thus, as we have seen, there are arguably no one-to-one mappings from syntax onto morphology, much as there are no simple mappings from morphological features such as +ACC and +MASCULINE onto phonological features like [–high] and [+labial] or from such features onto the features or properties of speech organs and soundwaves.

The fact that (oral) languages vary greatly with respect to morphological case and other overt dependency marking of N-relations (cf. Nichols 1992:90, Nichols and Bickel 2005:98ff), while also showing many recurring case patterns, might indicate that dispensing with S-structure (as part of external language) was premature. Perhaps, language acquisition is largely about recasting or reinterpreting universal Narrow Syntax in terms of culture specific S-structures, partly similar to and partly distinct from other such structures. If so, adult languages, with all their complex morphology, do not operate directly on the basis of universal Narrow Syntax, which might in part explain why it is so opaque to research.

Internal language can only be studied via externalized language, which in turn is merely an incomplete reflection of internal language, and not part of it. This reminds of Plato’s cave

allegory, and is in a sense the reverse of Plato's problem (see Chomsky 1986 and much related work). There is no escape from this fundamental dilemma.

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