Selection through Uninterpretable Features

Nordström, Jackie

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Evidence from Insular Scandinavian

Jackie Nordström, Lund University

Abstract

This paper offers a new description and explanation of morphological agreement, argument-verb agreement in particular. The hypothesis explored is that argument-verb agreement is directly related to selection of arguments (s-selection), *i.e.* s-selectional features are in fact ϕ-features ([PERSON, NUMBER(, GENDER)], and that morphological argument-verb agreement mirrors this relation. Call this Selection Through Uninterpretable Features Theory, or STUF-Theory. The idea is that if X has uninterpretable ϕ, it selects a Lexical Item carrying ϕ from the Lexical Array with which it can agree. This means that the distinction between structural and inherent case partly disappears and Case-Theory moves closer to θ-Theory. Still, STUF-Theory must permit some non-θ-related case as well, namely when X carries uϕ but the Lexical Array has no more Lexical Item that can be inserted. Then, X instead probes its domain for a goal (in accordance with Chomsky 2004).

STUF-Theory entails that morphological argument-verb agreement cannot be an Agree-relation holding between T and some DP (since T does not s-select), but must rather be an Agree-relation between ν and some DP. For the same reason, it should be V that assigns accusative case to some DP. The benefit with such an analysis is that agreement would no longer be seen as an imperfection in the Faculty of Language, but should rather be regarded as a vital component in the building of syntactic structures.

1. Background

1.1. Introduction

Morphological argument-verb agreement is an apparent anomaly for generative grammarians assuming the *Strongest Minimalist Thesis*, namely that 'language is an optimal way to link sound and meaning' (Chomsky 2006:3). At least superficially, morphological argument-verb agreement has no bearing on the interpretation, and from a comparative-linguistic point of view, it appears to be optional. Furthermore, it only takes place between the finite verb and the nominative argument in many languages including the Germanic ones. Many attempts have been made to account for this. Here I shall concentrate on

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Chomsky's (2004, 2006) hypothesis that morphological agreement mirrors a syntactic relation Agree which involves deletion of uninterpretable features, but also on Sigurðsson's (2006) opposing view that morphological agreement is merely a phonological phenomenon that only partially mirrors Agree – itself a precondition of Merge that does not involve uninterpretable features. As a synthesis, I will then argue that agreement does involve uninterpretable features, but that these are the s-selectional features that are the prerequisite of external merge of DP arguments. My argumentation is based on data from Insular Scandinavian.

1.2. Chomsky's Account

Chomsky (2004:113 (including note 42), 116) hypothesizes that morphological agreement follows from a syntactic relation Agree, which holds between a *probe* and a *goal*, in the sense that the probe carries *unvalued, uninterpretable* features [uF] and therefore searches its domain (its sister node) for the nearest goal that can match and delete these uF's. These features must be interpretable on the goal, but the goal must also have other unvalued uninterpretable features for Agree to take place. If it does, the uninterpretable features on the probe and the goal become valued, *i.e.* given the value held by the goal and the probe respectively, and are then removed from narrow syntax through an operation TRANSFER, which transfers them to the phonological component. Once these features are deleted, the probe and the goal can no longer enter into an Agree relation. In Chomsky's theory, morphological argument-verb agreement and nominative case are phonological realizations of valued uninterpretable features, in the sense that probe T carries uninterpretable ϕ-features that are assigned a value by goal DP at the same time as DP's uninterpretable structural case feature is assigned the value nominative by T. This stems from the observation that nominative case and morphological argument-verb agreement seem to be dependent on the verb being inflected for tense. In the same manner, Chomsky (2004:122) assumes that the transitive light verb (v*) has uϕ and agrees with and assigns structural accusative case to the direct object, although he in Chomsky (2006:15) assumes that V inherits these features from v* so that it is V that takes part in the actual Agree-relation. Note that Chomsky (2004:124) also assumes non-transitive v's in passive and ergative constructions (the past participle suffix could in fact be seen as the passive v morpheme (Chomsky (2001:46)). However, these non-transitive v's are thought to be ϕ-defective and therefore do not assign accusative case (through V). Lastly, there is the θ-related notion of inherent case which may be assigned by V but perhaps also by non-transitive v's (Chomsky 2000:102).

Chomsky's model has weaknesses, though. First of all, he does not think that structural nominative or accusative are uninterpretable T- or ν-features on DP but merely different values of an abstract feature (structural case) assigned by T and ν (V) respectively. I agree with Chomsky (as opposed to Pesetsky and Torrego (2004)) that nominative case should be separated from the feature [TENSE] since there is nothing temporal about the nominative case *per se*[1]. Furthermore, unlike the ϕ-features on T, the nominative case on DP does not overtly agree with T in tense – there is no present vs. past tense nominative case. Perhaps it would be more reasonable to assume that structural case is a phonological reflex of an Agree-relation that only involves ϕ-features (the idea of a one-way Agree-relation is the null-hypothesis in Sigurðsson (2006) (see below)). The second problem with Chomsky's model is the fact that predicative participles or adjectives may agree with the nominative argument at the same time as the finite verb does so. That would be strange if Agree rendered the goal inactive. Chomsky must therefore dismiss this as *defective Agree*, suggesting that the participle/adjective is not able to assign case to DP because it lacks the ϕ-feature [PERSON]. Furthermore, the finite verb may display default agreement in quirky subject constructions (*e.g.* in Icelandic and German) in which case it appears not to agree with a DP, at least not with any visible one. In order for T to have its ϕ-features valued, Chomsky (2000: 127ff) must therefore assume that it actually does agree with the quirky subject but that the ϕ-features somehow reduce to 3rd person and that the quirky subject is not assigned the nominative but merely some "additional Structural Case feature" (whatever that means).

Chomsky's hypothesis has also some more fundamental weaknesses. For instance, it is not perfectly clear exactly how uninterpretable features can be deleted. Chomsky (2004:116) speculates on the existence of an operation TRANSFER that removes uF from narrow syntax to the phonological component, but he does not explain exactly how that is done. The last but not least inadequacy in Chomsky's hypothesis is its explanatory value – what purpose do these uninterpretable features (ϕ on T and ν (V); structural case on DP) serve? Contrary to his (2004:116) suggestion, they cannot be linked directly to displacement, since, in Icelandic, dative, accusative and genitive arguments, participles (stylistic fronting), expletives and even locatives (cf. the English locative inversion construction) may also satisfy EPP on T. They must therefore

[1] See Platzack (this volume) for another solution to that problem, namely that structural case is merely a phonological Agree-marker, and not the actual spelled out uninterpretable tense-feature on DP.

be seen as imperfections, either in the Faculty of Language (in which case the Strongest Minimalist Thesis is proven to be false) or in Chomsky's theory. Inherent case, on the other hand, is not an anomaly since it can be linked to θ-role assignment and s-selection. A desirable development, then, would be to relate structural case to inherent case, something that I will attempt to do in this article.

1.2. Sigurðsson's Account

Sigurðsson (2006), in opposition to Chomsky, proposes that morphological agreement is a phonological phenomenon, related to assimilation, which only partially reflects syntactic Agree but which may also be an instance of phonological copying (in phrases with multiple agreement). Furthermore, syntactic Agree does not involve uninterpretable features in Sigurðsson's model but rather interpretable feature matching of two syntactic objects. This matching relation must exist for Merge to take place. In that respect, Agree has to do with selection. With regard to finite verb agreement in the Germanic languages, Sigurðsson (2006: 209ff) assumes that it mirrors Agree, whereas predicative/ participle agreement instead reflects that the predicative/participle has the c-selectional feature *n*, (and not ϕ-features). The latter could be seen as a shortcoming in Sigurðsson's analysis, namely that two phenomena that almost have identical characteristics on the phonetic level are analysed differently on the syntactic level. His reason for separating the two has to do with concord (attributive agreement), which he basically equates with predicative agreement. On the other hand, there are just as good reasons to separate attributive and predicative agreement from each other, the most obvious one being that they often display different inflectional paradigms. Another peculiarity in Sigurðsson's analysis is that he seems to deal with argument-verb agreement as interpretable features on the verb/predicator. It is hard to see that there could be any difference in the interpretation of an inflected verb and an uninflected one (apart from tense and mood of course, but that is a different matter).

1.3. Conclusion

In conclusion, neither Chomsky's nor Sigurðsson's hypotheses are satisfying. It remains to offer a better explanation of agreement. In order to do this I will first present some data from Insular Scandinavian that show that morphological argument-verb agreement and nominative case in these languages are not directly related to structural subjecthood, which was the chief reason for linking these phenomena with T, and that morphological argument-verb agreement and nominative case should be associated with ν instead. On those premises, I will

then be able to relate them to s-selection. Finally, I will deal with some counter-arguments.

2. A New Description

2.1. Argument-Verb Agreement and Case in Insular Scandinavian

Insular Scandinavian is particularly interesting with respect to agreement and case. First of all, it has retained the four-case system and the three-person- and two-number-agreement system lost in Mainland Scandinavian and English. It that sense, it reveals more about case and agreement than the latter languages do. Furthermore, Insular Scandinavian has some interesting features (which will prove to be useful for my argumentation) that are not shared by other languages that also have retained the case and agreement systems in full (such as German), namely nominative objects and dative/accusative arguments that are true structural subjects.

Thráinsson (1994:175ff) outlines the general patterns of Icelandic argument-verb agreement and case. As in other Germanic languages, verbs take nominative subjects as the unmarked option but dative subjects are quite common too and accusative subjects not uncommon. The main differences between these subjects are that "all the non-nominative subjects are non-agentive" and that only the nominative ones trigger subject-verb agreement, as the following examples from Thráinsson show:

1) a. Stelpurnar voru mjög kaldar
girls-the (nom. pl.) were (3 pl.) very cool
'The girls were very cool'
b. Stelpunum var mjög kalt
girls-the (dat. pl.) was (3 sg.) very cold
'The girls felt very cold'

Furthermore, there are also nominative objects in Icelandic, which "occur with verbs that take dative subjects and there the verb usually agrees with the nominative object rather than occurring in the non-agreeing third person singular form" (Thráinsson (1994:176); the example is taken from Sigurðsson (2006:210)):

2) Henni hafa sennilega ekki líkað þessar athugasemdir
her (dat) have (3 pl.) probably not liked these comments (nom. pl.)
'She probably didn't like these comments'

Lastly, passivized ditransitive constructions behave in the following fashion according to Thráinsson (1994:177): except for the pattern common to many Germanic languages, namely that the accusative object may be promoted to nominative subject if the sentence is passivized, the dative object may also be promoted to subject, but then it stays dative and do not trigger any agreement (as expected. Examples from Thráinsson (*ibid*)):

3) a. Einhver hjálpaði strákunum með heimaverefnið
somebody (nom.) helped boys-the (dat. pl.) with homework-the
'Somebody helped the boys with the homework'
b. Strákunum var hjálpað með heimaverefnið
boys-the (dat. pl.) was (3 sg.) helped with homework-the
'The boys were assisted in their homework'

In Faeroese, the picture is somewhat different. There, dative subjects alternate with nominative ones (Barnes & Weyhe 1994:213). Just as in Icelandic though, only the nominative subjects trigger finite-verb agreement, as the following examples from Barnes & Weyhe (*ibid*) show:

4) a. Mær dámar feskan fisk
me (dat.) likes (3 sg.) fresh fish
'I like fresh fish'
b. Eg dámi feskan fisk
I (nom.) like (1 sg.) fresh fish

As in Icelandic, there are also nominative objects agreeing with the finite verb, although they are rare (Barnes & Weyhe (*ibid*)). Most often, the direct object remains accusative if the indirect object is promoted to dative subject in a passivised ditransitive construction, but in accordance with the nominative-agreement pattern, the agreement on the finite verb is then default (my example):

5) Okkum varð seld kýr
us (dat. 1 pl.) became (3 sg.) sold cows (acc 3 pl.)
'We were sold cows'

What these Faeroese examples show in addition to the Icelandic ones is the strict correlation between nominative and argument-verb agreement.

Thus we are able to make the following generalizations for Icelandic (and partly for Faeroese):

6) a. morphological argument-verb agreement can only take place between the finite verb and a nominative DP.
   b. morphological argument-verb agreement is not dependent on the DP being the subject
   c. agentive DP's are always in the nominative (except in ECM constructions)

2.2. Discussion

In conformity to Chomsky (2004), one could assume that (6a) can be reformulated in terms of cause and effect, so that the apparent condition that the DP has to be in the nominative case may instead be the effect of the syntactic relation Agree: if the DP agrees with a certain functional category carrying uϕ it is assigned the value nominative. I leave open the possibility that case is merely a phonological reflex of a one-way Agree-relation, as suggested in Sigurðsson (2006). With this in mind, consider generalizations (6b and c). (6b) suggests that the EPP-feature on T is not directly related to the Agree-relation that induces nominative case and agreement on the finite verb. Indeed, if T both had uϕ and EPP to satisfy and therefore probed into vP for a goal for each of these features, it would be reasonable to assume that T under minimal search would choose the same goal for both features, especially if these features are related as Chomsky (2004) assumes. Since that appears not to be the case in e.g. constructions with nominative objects, the suggestion arises that it may not be T that carries the uϕ seen in morphological agreement on the finite verb. Furthermore (6c) states that Agent-role assignment almost always induces nominative case assignment. If we adopt the now standard theory (Speas 1990, Chomsky 2001:6) that it is causative v (v*) that assigns the Agent/Causer-role (through configuration and semantic properties of the head (Chomsky 2004:111)) we are thus able to infer the following corollary:

7) Nominative case and finite verb agreement mirrors an Agree-relation between v and some DP.

Note that this is not Chomsky's theory, his being that it is T that agrees with nominative DP, and that v* assigns accusative case (through V). However, (6 a, b and c) points towards (7). In that case, it should be V in itself that assigns

accusative case – perhaps not such a great departure from Chomsky (2006:15) who also assumes that V assigns accusative case but that it does so through inheritance from v*. Note that I'm referring to v in general here, not just causative v (v*) but also ergative and passive v. There is one immediate problem with (7), namely that Chomsky (2001:42) thinks that the Experiencer – a typically dative argument – is also generated in Spec-v*P. However, if one adopts the Uniformity of Theta-Assignment Hypothesis (Baker 1998), and if dative case is inherent, i.e. θ-related, it follows that the Experiencer is merged in the same position as the indirect object (IO). IO is typically in the dative and has θ-roles that are related to Experiencer (such as Beneficiary, Recipient etc.). Indeed verbs such as *show* seem to take an Experiencer IO. Platzack (2005, 2006) is one of many who argue that the Experiencer is generated in Spec-VP along with the IO. That would also make the label v more well-defined: v is simply causative but may be null (ergative) or demoted (passive). Importantly, it still assigns nominative case even in those cases.

There are two strong indications that it is not T that assigns nominative case and induces agreement on the verb and not v that assigns accusative case[2]. First, in Icelandic impersonal passives of double object constructions, agreement between the finite verb and the direct object is blocked if the indirect object stays *in situ*, but is not blocked if IO moves in front of the position below T where auxiliaries are base-generated as non-finite. Examples adopted from Holmberg (2002:95,99):

8) a. *Það hafa verið gefnar einhverjum strák gjafir
it have been given (3 pl.) some boy (dat.) gifts (nom.)
'Some boy has been given gifts'
b. Það hafa einhverjum strák verið gefnar gjafir
it have some boy (dat.) been given (3 pl.) gifts (nom.)

Thus it is not T that is blocked for probing, but some functional node below it. Second, note that IO does not block accusative case assignment in the active sentence (examples again from Holmberg (2002:123)):

9) Þeir hafa gefið stráknum gjafir
they have given boy-the (dat.) gifts (acc.)
'They have given the boy gifts'

[2] Note that this is also what Chomsky (2006:15) states, although he thinks that V inherits its features from v*.

How is that possible when IO intervenes between v and DO? The answer must be that it is not v but V itself that assigns accusative case to DO.

There are other facts that points towards (7), rather than against it, namely ECM and raising constructions in Greek and Icelandic. Note that at least in Mainland Scandinavian and in English, ECM's come without nominative case assignment and argument-verb agreement in the embedded non-finite clause. This suggests a correlation between tense, *i.e.* T, and argument-verb agreement and nominative case. However, in Greek, ECM's actually do have morphological argument-verb agreement on the non-finite verb according to Iatridou (1988:176ff), which indicates that that at least argument-verb agreement should not be connected to tense after all. The following example is from Iatridou (*ibid*):

10) vlepo ton Kosta na tiganizi psaria
see the Kosta acc. fry (non-finite 3 sg.) fish
'I see Kostas fry fish'

Furthermore, Icelandic ECM and raising constructions may even have nominative objects, which suggests that nominative case should not either be connected to tense (examples from Sigurðsson p.c.):

11) a. Ég mundi telja henni hafa leiðst bókin
I would believe her (dat.) have bored book-the (nom.)
'I should think that the book bored her'
b. Henni virðist hafa leiðst bókin
Her (dat.) seems have bored book-the (nom.)
'The book seems to have bored her'

It is generally assumed (by Chomsky (2001:8ff, 2006:10, 15) in particular) that infinitival T is defective in these kinds of constructions and that it instead is matrix v* (through V) in ECM or T in raising constructions that assigns case to the 'subject' of the infinitival phrase (accusative and nominative respectively). By defective, he means that T lacks basic tense, ϕ-features (Chomsky (2006:10)) but probably also EPP (Chomsky 2001:8ff), *i.e.* all the essential features of T. For these reasons, it could even be argued that T is not realized at all there, as is done in Lundin (2003). That would also conform to Chomsky's (2006) idea of *v**P but crucially not T being a phase. Whether defective or non-

existent, the fact that these constructions may actually have both nominative objects in Icelandic (11a,b) and argument-verb agreement in Greek lends further support to the hypothesis that it is not T that assigns nominative case and is responsible for argument-verb agreement, but some other non-defective functional head (presumably *v*).

Thirdly, (11a,b) shows that the raised argument does not necessarily have to be assigned accusative or nominative case by some matrix head as *henni* remains dative. This suggests that the infinitival 'subject' raises not necessarily in order to get its case valued but perhaps only due to a lack of EPP on defective or non-existent T. The fact that there may actually be nominative case assignment at the same time in Icelandic ECM constructions supports this suggestion. It cannot be argued that it is matrix T that assigns nominative case to the object in (11a) as it already assigns nominative case to the matrix subject (*ég*) and agrees with it. In conclusion, Icelandic and Greek ECM and raising constructions lend further support to the hypothesis that it is v that is responsible for nominative case assignment and argument-verb agreement.

2.3. Default Agreement

Even default agreement can be described in terms of (7): it may in fact be agreement between v and a phonetically null pronoun, like *pro* in the Romance languages, generated in Spec-vP in order to satisfy uϕ on v (see Sigurðsson (2004a:78ff) who argues against such an analysis of impersonal constructions with psych-verbs for reasons I will come to below). Chomsky (2000:128) suggests that expletives may be involved in default agreement. Note that the Insular Scandinavian expletive pronoun is in the 3rd person singular neuter (*það* in Icelandic, *tað* in Faroese) and that the default agreement is also in the 3rd person singular. Default agreement could thus, by hypothesis, be seen as agreement between the verb and such a 3rd person neuter pronoun, which can either be overt or null. In the following impersonal constructions it is obligatorily overt (examples from Sigurðsson (2004a:77) and Thráinsson (1994:179)):

12) a. Það má ekki reykja hér
It (3 sg. n.) may (3 sg.) not smoke here
'Smoking is not allowed here'
b. Það hefur áreiðanlega verið dansað þá
it has certainly been danced then
'There has certainly been dancing then'

Yet, there is the possibility for Icelandic passive transitive constructions to have either quirky subjects and default agreement or an expletive with which the finite verb appears to agree (examples from Sigurðsson (p.c.)):

13) a. Einhverjum bátum var stolið
Some boats (dat 3 pl.) was (3 sg.) stolen
'Some boats were stolen'
b. Það var stolið einhverjum bátum

Note also that the default agreement comes with nominative singular neuter agreement on the participle in Icelandic:

14) Strákunum var hjálpað með heimaverefnið
boys-the (dat. pl.) was (3 sg.) helped (nom. sg. n) with homework-the
'The boys were assisted in their homework'

Thus, there seems to be a null 3rd person singular neuter DP in the ν-domain that the finite verb and the participle agree with (thus it must have been base-generated in the Specifier of the passive participle ν phrase). I suggest it is a null expletive inserted to satisfy uϕ.

So far the discussion on default agreement has dealt with the expletive use of the 3rd person neuter pronoun in Icelandic. However, the analysis can be extended to cover cases where there seems to be an argumentative null pronoun. It has long been assumed among historical linguists (such as Wessén 1992:200ff) that impersonal constructions in the Germanic languages with psych-verbs and dative/accusative subjects stem from a conceptualization of the percept as the Causer of the state of the Experiencer, and that this Causer may be expressed by a 3rd person neuter pronoun (that may either be analysed as an anaphoric pronoun or a determinative one), as the following German examples show (from Bohnacker, U. p.c.):

15) a. Mich gelüstet (es) nach...
me (acc. 1 sg.) craves (3 sg.) (it) for
'I crave for ...'
b. Es gelüstet mich nach...
It (nom. 3 sg.) craves (3 sg.) me for

Similarly, Platzack (2006:8) (based on an idea by Sigurðsson (2005)) suggests the presence of an invisible Agent in Icelandic impersonal constructions with quirky Theme subjects:

16) Okkur rak að landi
Us (acc 1 pl.) drove (3 sg.) towards land

The idea that a null pronoun agrees with the verb in impersonal constructions with dative/accusative subjects and default agreement would lend further support to (7) if the pronoun were analysed as Cause/Agent, the canonical position of the Causer being Spec-vP. The problem with such an analysis is that Sigurðsson (2004a:79) shows that Icelandic impersonal constructions corresponding to (15) become ungrammatical when constructed with *það*, thus the existence of a third person pronoun cannot be verified in Icelandic:

17) a. Mér finnst að ...
Me finds that ...
'I find that...'
b. *Það finnst mér að...

Yet, this problem could perhaps be explained on conceptual grounds. If the dative argument remained *in situ* in Spec-VP, the reading becomes ambiguous since *það* then, in line with the impersonal passive and existential constructions dealt with above, quite erroneously could be interpreted as a non-argument – an expletive – and the dative argument as the logical subject, just as in (13b) repeated here as (18):

18) Það var stolið einhverjum bátum
it was stolen some boats
'There were some boats stolen'

Within parenthesis, one could perhaps question the validity of the assumption that there is a syntactic difference between *það* in impersonal passives and existential constructions and *það* in impersonal Experiencer/Theme constructions. The reason for keeping them apart is that it cannot be argued that *það* carries a θ-role in the former cases, and that this *það* therefore must be analysed as an expletive or an impersonal pronoun, inserted in Spec-vP merely in order to value v's uφ. Yet, one could argue that that is also the case in the

impersonal Experiencer/Theme constructions, so that *það* is not a Cause argument but simply an expletive there as well. Even if there were a thematic difference, this difference would only arise from the semantic properties of v. Thus, the two versions of *það* discussed here are essentially the same pronoun from a syntactic point of view, externally merged in Spec- vP in order to satisfy uϕ. Whether or not impersonal verbs indeed have a Cause-role to assign, I leave to the semanticists to establish.

There are two arguments against Icelandic expletive *það* being generated in Spec-vP. Firstly, it cannot be inverted, which suggests that it is not base-generated in Spec-TP or below:

19) *Rigndi það í gær?
rained it in yesterday
'Did it rain yesterday?'

Yet, that says more about Spec-TP than Spec-vP. In most cases, arguments are never spelled out in Spec-vP in the Germanic languages (cf. infinitival phrases), yet most syntacticians believe that at least Agent/Cause arguments are generated there. That Agent/Cause arguments tend to be spelled out when they are moved to Spec-TP in the Germanic languages may be due to some visibility condition. Note that in the Romance languages, pronominal subjects are normally not spelled out in Spec-TP either. In fact, Sigurðsson's (2004b:241ff) *Silence Principle* states that the most economic choice would be not to spell out an argument if it can be inferred from the context. It would be hard to argue that such a light element as an expletive would behave differently in this respect. That *það* is not spelled out in Spec-TP when the finite verb has moved to C in Icelandic may thus also have such an explanation. Furthermore, it can be shown elsewhere that expletive *það* is at least in some part of the derivation in Spec-TP. Expletive *það* may be found in subordinate clauses, following the complementizer (which is generated in C. The examples are from Rögnvaldsson & Thráinsson (1990:29):

20) a. Ég fer, ef það getur enginn gert þetta
I go, if it can no-one do this
'I leave, if no-one can do this'
b. Ég kem í kvöld, nema það komi gestir til mín
I come in evening, unless it come guests to me
'I will come tonight, unless I have some visitors'

Thus, I conclude that the argument that expletive *það* is not base-generated in Spec-TP or below cannot be maintained.

The second indication that expletive *það* is not generated in Spec-vP is the Icelandic transitive expletive construction (example from Sigurðsson p.c.):

21) Það hafa ekki allir étið hákarlinn
It have (3 pl.) not all (nom. 3 pl.) eaten the shark
'Everyone has not eaten the shark'

Note that the Agent is *in situ* Spec- vP here since it comes before the non-finite verb and after the negation[3]. The expletive must therefore be generated higher than vP. This special example does not pose a problem for the theory outlined, though, as the verb agrees with the Agent (*allir*) and not with the expletive. Thus in Icelandic transitive constructions, *það* may be inserted directly in Spec-TP satisfying EPP. This may also be the case in constructions with late subject agreement (example adapted from Sigurðsson (2006:210):

22) Það hafa komið hingað einhverjir málvísindamenn
It have come here some linguists (nom.)
'Some linguists have arrived here'

In all other instances I maintain that expletive/argumentative *það* is inserted in Spec-vP in order to satisfy uϕ on v.

3. A New Explanation

3.1. Selection Through Uninterpretable Features

It remains for me to explain why v should have uϕ. With argument-verb agreement being analysed as a reflex of uϕ on T, it was seen as an imperfection by Chomsky (2000:119ff). However, if argument-verb agreement were instead seen as a reflex of uϕ on v, the possibility would suddenly arise that it may be a precondition on Merge, not in the Sigurðssonian sense – the features still being uninterpretable – but in the sense that s-selection works through valuation of uninterpretable features (the term semantic-selection becomes inappropriate if one adopts these lines). The operation would thus have the following steps: v and V have unvalued, uninterpretable ϕ-features and therefore select DP

[3] It seems that the other order is possible for some sentence adverbials, but the important thing here is that the order in 21 is good.

arguments from the Lexicon in order to value and delete them in head-to-Spec/Comp relations; at the same time the case of DP also becomes valued. Call this the Selection Through Uninterpretable Features Theory or STUF-Theory. In that case, it should be V that assigns accusative and dative case to its inner and outer argument respectively. That would mean that the distinction between inherent and structural case partly disappears – perhaps a welcome development. Note that in Icelandic there is a certain variation, so that some indirect objects may have accusative case, whereas some direct objects may have dative case (Thraínsson 1994:176ff). Interestingly, Platzack (2006:88ff), citing Barðal (1993), points out that this seems partly to be dependent on animacy and θ-roles, as the following examples from Platzack (*ibid*) show:

23) a. Kristín þviði hanðklæðið
Christine washed towel-the (acc.)
b. Kristín þvoði barninu
Cristine washed baby-the (dat.)

Furthermore, it shows that dative and accusative case are related, an indication that they are selected by the same head, V. There are three chief counter-arguments against STUF-Theory, which I will deal with presently.

3.2. Arguments against STUF-Theory and their Refutation

3.2.1. The Problematic Head-to-Specifier relation

First of all, Chomsky (2004:109, 111ff) speculates that there cannot be any head-to-Spec relation since the head does not c-command the Spec. However, it is not clear to me why only terminal nodes should be able to select/probe – the head in question could just as well select/probe when it is a member of the set {head, Comp}, which does c-command the Spec. The reasoning is as follows. Say that a head has two selectional features. First, the Complement merges to the head, satisfying the first selectional feature and forming the set {head, Comp}. Second, the Specifier merges to the set {head, Comp}, satisfying the second selectional feature. Now, the set {head, Comp} is defined as being nothing more than the two primary constituents added together, and the head is identified as the label, the one that selects and is selected (Chomsky 2006:5-8). Thus when the Specifier is merged to the set, it follows by definition that the Specifier is simply merged to the primary constituents constituting the set, i.e. the head and the Complement. Since the head is the member that selects or is selected it is even more reasonable to assume that the Specifier does not merge

to both but only to the head. Therefore the Specifier should also be defined as the domain of the head. The result of first and second Merge to the head would then either be a single set {Spec, head, Comp}, or perhaps more likely two intersecting sets with the head as the intersection and Comp and Spec as complements (in set-theoretic terms).

Even if we do not assume any s-selectional features but only Edge Features (Chomsky (2006)), the problem remains. According to Chomsky (2006:6) ν has two Edge Features, one that is satisfied through merger of VP as its Complement and another that is satisfied through merger of the External Argument as its Specifier. The question then is how ν ever can have its Edge Feature satisfied if it never c-commands the External Argument? Furthermore, some lexical information *must* take part here, since only DP's can become External Arguments. Indeed, if there were no argument selection and the Lexical Items come in a (sub)array, as Chomsky (2006) assumes, how then would Narrow Syntax know which argument to merge where in the structure. If it does not, there would be multiple derivation crashes at Spell-out before Narrow Syntax by chance would merge the argument in the right way according to the semantic component. Thus Chomsky's model must permit a head-to-Spec relation, perhaps in the way outlined above, perhaps in some other. Even Chomsky (2004:114) himself points out that many more or less accepted models such as the cartographic ones (Cinque (1999, 2002), Rizzi (1997, 2004) Belletti (2004)) rely on the head-to-Spec relation, and that Chung (1998) provides extensive evidence for the existence of Spec-head agreement.

Here it can also be noted that in Swedish, there is a strict correlation between the argument-participle order and argument-participle agreement in impersonal passive constructions (Holmberg (2002:86) see example (24) below). If the argument comes before the participle, there is argument-participle agreement, but if it comes after[4], the participle gets the 3rd person neuter agreement dealt with in the section on default agreement above. Following the conclusions made above, the argument-participle agreement could be seen as an Agree-relation between the passive participle ν and the argument, whereas the 3rd-person-singular agreement on the participle could be seen as an Agree-relation between the passive participle ν and the expletive. This is compatible with the STUF-Theory, since the passive participle ν would still have uϕ even though it does not select an external argument. The important thing is that both

[4] That generalization is perhaps not 100% true, since Platzack reports that at least for him, it may be possible to have argument-participle agreement when the argument comes after the participle.

instances seem to depend on a head-Spec relation: except for the strict correlation between the argument-participle order and argument-participle agreement, it is also the case that when we have that particular order, the participle *cannot* agree with the expletive anymore (examples from Holmberg (2002:86)):

24) a. Det har blivit skrivet/ *skrivna tre böcker om detta
It has been written (3 sg. n.)/*(pl) three books on this
'There have been three books written about this'
b. Det har blivit tre böcker *skrivet/skrivna om detta

Lastly, if one is not satisfied with the solution I offered above as to how there may be a head-Spec relation, there are other potential solutions one could consider. Sigurðsson (2004c:222), e.g., mentions the possibility that Narrow Syntax may not have local memory of hierarchy, which would render the head-to-Spec-relation unproblematic. A third possibility is to abandon Larson's (1988) Single-Complement Hypothesis, so that the Specifier could be defined as a second Complement. The Single Complement Hypothesis was based on binding facts, and it is interesting to note that Chomsky (2006:8ff), in fact, abandons binding-theory as involving c-command. That seems intuitively right. To me, anaphoric binding has always seemed to belong to the phonological component and to be more determined by the linearity of speech and the canonical linear order of Lexical Items in a spelled out clause, rather than by phrase-structure *per se*. The benefit with the last option over Sigurðsson's (2004c) one is maintains a hierarchy within Narrow Syntax, albeit only at the phrase-level. I leave the question at that, concluding that there must be something like a head-External Argument relation, but leaving it to the reader to decide which particular description s/he prefers.

3.2.2. An Apparent Violation of the θ-Criterion

The second objection to the STUF-theory is that it appears to cause a violation of the θ-criterion, which states that an argument can only have one θ-role. Ergative verbs may have two DP arguments, a nominative Agent and an accusative Theme (25a), but alternatively they may be constructed without the Agent, in which case the Theme is promoted to subject and assigned nominative case (25b). This is also the case when transitive verbs become passivized (25c):

25) a. The wind moved me
b. I moved
c. I was moved by the wind

To account for the latter option under the theory outlined above one would need to assume that Theme is first selected by V, then by ν, in which case it should also have the Agent role, which it does not. That would in fact apply to all VP-arguments that are assigned nominative case – a serious problem for the theory. And yet, in some instances that is in fact what seems to be the case:

26) a. She crawled through the bushes
Ag?/Th
b. She pulled herself through the bushes
Agent Theme

However, it is important to stress here that θ-role assignment comes partly through configuration but mostly through the semantic properties of the head (see Chomsky 2004:111, Hale and Keyser 1993). Furthermore, θ-role assignment is thought by Chomsky (*ibid*.) to take place in the semantic component (SEM) and cannot be determined by ϕ-features and Case *per se*, these being deleted before the message is sent to SEM. Thus ν may have ϕ-features in the course of the derivation without necessarily having a θ-role to assign in SEM. I argue therefore that ϕ-features and case are syntactic features that makes semantic configuration possible, but that the reverse is not necessarily true. If there is no external DP to select from Lex, ν may either select an expletive or else probe into VP in order to have its ϕ-features valued and deleted. In that case a Theme argument may have nominative case without being selected by ν *per se*, but through long distance Agreement with ν. It may even be the case that it remains *in situ* in VP (if not moved to spec-TP) so that it does not disturb the configuration, as can be seen in the following Icelandic examples (adapted from Sigurðsson 2006:210):

27) a. Það hafa komið einhverjir málsvísindamenn
It have (3 pl.) come some linguists (nom. 3 pl. theme)
'There have arrived some linguists'
b. Henni hafa líkað þessar athugasemdir
Her (dat) have (3 pl.) liked these linguists (nom. 3 pl. theme)
'She liked these linguists'

Here the non-agentive nominative argument comes after the non-finite verb, which means that it remains *in situ* in VP, not disturbing the configuration, *i.e*. not moving to Spec-vP. Note that causative verbs may also be constructed with expletive *það* in Icelandic, and then the nominative Agent comes *before* the non-finite verb and may come after the sentence adverbial, *i.e*. it is in Spec- vP[5], as seen in example (21), here repeated as (28):

28) Það hafa ekki allir étið hákarlinn
It have (3 pl.) not all (nom. 3 pl.) eaten the shark
'Everyone has not eaten the shark'

Lastly, it is worth noting that Ergative languages do not assign different cases to the Theme argument – in construction both with or without an Agent, the Theme-argument has absolutive case. Without going into details here, this indicates that the correlation between θ-position and case is closer than previously has been thought, nominative being the only exception for reasons given above. Perhaps ergative/absolutive languages simply do not realize v in constructions without the Agent.

3.2.3. Argument-Auxiliary/Modal Agreement

The third problem with the STUF-Theory is how to account for argument-auxiliary/modal agreement. Some researchers argue that auxiliaries such as progressive *be* and perfective *have* are generated in a functional node outside the v-domain such as I (T) (Sano & Hyams 1994) or Aux (Bobaljik (1995), Holmberg (2002)). That would be incompatible with the idea of v as the locus of morphological argument-verb agreement. However, within the minimalist framework Chomsky (1995), auxiliaries/modals are thought to head their own VP's (Marantz 1995:375) and then raise to AGR/T across the negation. Here Swedish subordinate clauses and main clauses with non-finite auxiliaries become interesting, as the negation always precedes the finite auxiliary in the former and the non-finite in the latter, both of which suggests that auxiliaries are generated in the v-domain:

[5] Here one must assume, as I said above, that the expletive is generated in Spec-TP, and not in Spec-vP. This could be related to T's EPP-feature. Note that the verb agrees with the Agent argument, so it does not cause any problem for the theory.

29) a. att hon inte har sagt något
that she not has said anything
'that she hasn't said anything'
b. Hon kan inte ha sagt någonting
She can not have said anything

Furthermore, the mere fact that auxiliaries may be non-finite suggests that [TENSE] is not an inherent feature on them. Lastly, it could be noted that auxiliaries often carry at least some substantive verbal meaning, especially deontic modals, i.e. they cannot all be dismissed as simply functional categories[6]. The next question then is how auxiliaries could have ϕ-features when they do not assign θ-roles, yet that is easily accounted for if one assumes that auxiliaries are generated in the ν-domain (which we have seen indicia for above). The reason why they agree with the nominative argument would, in that case, be due to ν's uϕ which ν has even when it does not select an Agent/Cause (ν is able to select an external argument because it has uϕ, but that does not necessarily mean that it always needs to select one, as I concluded above).

4. Conclusion

Insular Scandinavian constructions with oblique subjects, default agreement, agreement with nominative objects and the fact that Agentive DP's are always in the nominative (except in ECM-constructions) all show that the assumption that T has uϕ is highly questionable. Rather it must be ν that is responsible for nominative agreement. This is supported by further facts from Insular Scandinavian and Greek and opens the possibility that the existence of uϕ may not be an imperfection in Faculty of Language but a necessity for the selection of arguments. If that were the case, generative grammar moves one step further towards explanatory adequacy and the Strongest Minimalist Thesis is supported.

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[6] If one adopts Cinque (1999) that particular argument becomes invalid.

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